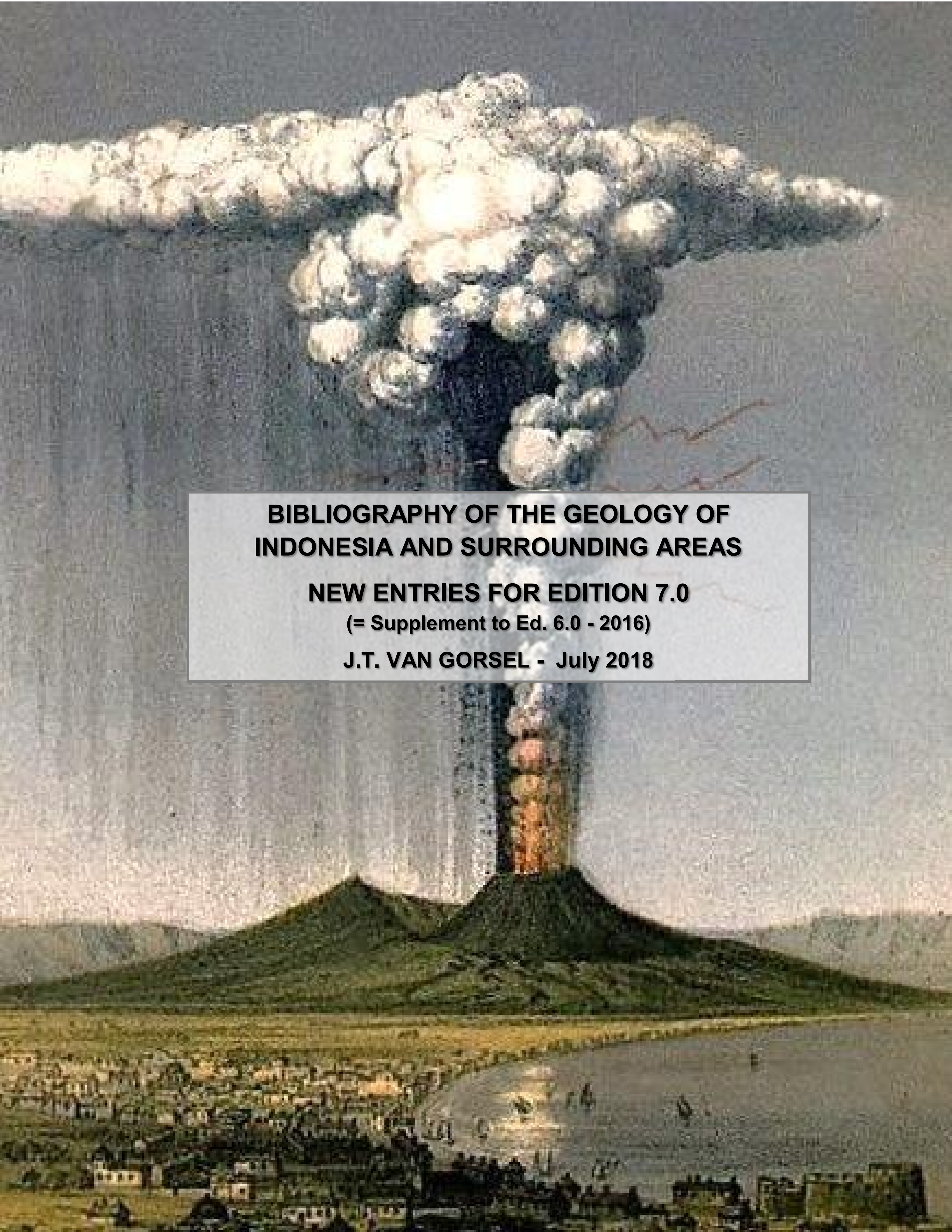

BIBLIOGRAPHY OF THE GEOLOGY OF INDONESIA AND SURROUNDING AREAS

NEW ENTRIES FOR EDITION 7.0

(= Supplement to Ed. 6.0 - 2016)

J.T. VAN GORSEL - July 2018

NEW TITLES FOR EDITION 7.0 ***(with number of new titles)*** **Page**

NEW (AND NOT SO NEW) TITLES IN EDITION 7.0:

* This volume contains the new titles in Edition 7.0, that have been added to the Bibliography since the 6th Edition of October 2016. This includes both new papers published since mid-2016 as well as many older papers that were missed in earlier editions of this Bibliography.

* 3490 new titles, including:
  - 1560 papers on regional geology and on geology of areas in Indonesia and North Borneo
  - 1337 papers on geology of areas around Indonesia
  - 570 papers on paleontology and other special topics.

* >1375 new titles have links to open access online repositories.

* Also >3000 updates of references that were already in Edition 6.0.

I. REGIONAL GEOLOGY (303)

I.1. Indonesia Regional Geology (52)

Atkinson, C., T. Wain, H. Sugiatno & S. Hayes (2017)- Hidden basins and undrilled anticlines: The legacy of early oil exploration in Indonesia. SEAPEX Exploration Conference 2017, 9, Singapore, 36p.

Baillie, P., J. Decker, D. Orange, P. Teas & N. Wagimin (2009)- IndoDeep: new insights into the geology of Indonesia. Proc. 2009 SE Asia Petroleum Expl. Soc. (SEAPEX) Conference, Singapore, p. 1-50. *(Abstract + Presentation)*
(Three 'conventional' paradigms in areas of TGS IndoDeep project: (1) Sumatra Fore-arc totally unprospective, (2) not sufficient sediment thickness in Bone Bay to have generated hydrocarbons; (3) Cenderawasih Bay underlain by oceanic crust and unprospective (pretty pictures of seismic lines and seafloor bathymetry, but no explanations of new insights; JTvG))

Balazs, D. (1968)- Karst regions in Indonesia. Karszt-Es Barlangkutatas 5, Budapest, Globus nyomda, p. 3-57.
(online at: http://epa.oszk.hu/02900/02967/00005/pdf/EPA02967_karszt_es_barlangkutatas_1963-1967_05_003-062.pdf)
(Review of limestone karst development in Indonesia (mainly in Tertiary limestones). Tropical karst areas generally controlled by heavy torrential tropical rains and characterized by predominantly positive landforms (conical and pinnacle karst hills), while depressions (sinkholes, etc.) more common expression of dissolution in areas of slow rains in temperate belt)

Balazs, D. (1971)- Intensity of the tropical karst development based on cases of Indonesia. Karszt-Es Barlangkutatas 6, Budapest, Globus nyomda, p. 33-67.
(online at: http://epa.oszk.hu/02900/02967/00006/pdf/EPA02967_karszt_es_barlangkutatas_1968-1971_06_033-068.pdf)
(Discussion of karst weathering in Gunung Saribu (W Sumatra; Permo-Carboniferous), Gunung Sewu (S Mountains) and other localities on Java and SW Sulawesi (Maros))

Bijlaard, P.P. (1935)- Beschouwingen over de knikzekerheid en de plastische vervormingen van de aardkorst in verband met de geologie van den Oost-Indischen archipel. De Ingenieur in Nederlandsch-Indie 1935, (I), 11, p. 135-156.
('Discussion of buckling potential and plastic deformation of the Earth's crust as related to the East Indies Archipelago'. On the physics of plastic deformation of Earth's crust in the Indonesian region. Expansion of Vening Meinesz' theory of crustal downbuckling)

Bijlaard, P.P. (1936)- Nadere toelichting van mijn theorie der plaatselijke plastische vervormingen op de tektoniek. De Ingenieur in Nederlandsch-Indie 1936, (I), 11, p. 160-170.
(Second part of discussion between Van Bemmelen and Bijlaard on tectonic theory for Indonesian region)

Brunn, J.H. & P.B. Burollet (1979)- Island arcs and folded ranges. In: W.J.M. van der Linden (ed.) Fixism, mobilism or relativism: Van Bemmelenôs search for harmony, Geologie en Mijnbouw 58, 2, p. 117-126.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0RGQxdG1sTnNoalE/view)
(Includes chapter on Seram arc and Banda Sea. With Hamilton (1979) one of first to suggest Banda sea formed by longitudinal extension))

Carey, S.W. (1986)- Geotectonic setting of Australasia. In: R.C. Glenie (ed.) Second South-Eastern Australia oil exploration symposium, Melbourne 1985, Petroleum Expl. Soc. Australia (PESA), p. 3-25.
(Controversial/ unconventional tectonic model. 'most prospectors accept plate tectonics, although subduction is patently false, and the Earth is expanding at accelerating rate')

Darman, H. & Minarwan (eds.) (2017)- Seismic atlas of Indonesian basins, version 17.01. FOSI/ INDOGEO Spec. Publication.
(see also online at: http://geoseismic-seasia.blogspot.com/p/home.html)

(24 chapters of of Indonesian basins with short basin characterization and typical seismic lines)

Darman, H., R.A. Tampubolon & M. Arisandy (2018)- Geological features observations in Eastern Indonesia based on selected P3GL seismic data. Berita Sedimentologi 40, p. 55-64.
(online at: http://www.iagi.or.id/fosi/berita-sedimentologi-no-40.html)
(Examples of P3GL seismic lines over several East Indonesia basins around Waigeo, Misool, Seram, Aru, etc.))

Decker, J., F. Ferdian, A. Morton, M. Fanning & L.T. White (2017)- New geochronology data from Eastern Indonesia- an aid to understanding sedimentary provenance in a frontier region. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-551-G, 18p.
(New zircon ages of igneous rocks in E Indonesia. Biotite-cordierite dacites (ambonites) from Ambon Pliocene (3-4 Ma), with inherited material from ~150-450 Ma. Banggai-Sula granites mainly Triassic age (226-244 Ma), with inherited zircons of ~1000, ~1400-1500, 1800 and 2200 Ma. Birds Head granites similar Triassic ages (~235-248 Ma; roots of Triassic volcanic arc system). Bacan diorite ~330 Ma. On Seram Triassic siliciclastic Kanikeh Fm sst same zircon age spectra as metasediments of Tanusa and Tehoru complexes. Sirga Fm quartz clastics in New Guinea Lst several units of different ages, derived from local uplifts in Eocene-Oligocene)

De Smet, M.E.M. (1999)- On the origin of the outer Banda Arc. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 81-82. *(Abstract only)*
(Order of structure belts/ rocks around Banda Sea is not a logical one in terms of plate tectonics. Outer Banda Arc not accretionary complex but compressed northern rim of Australian continental margin)

De Vos van Steenwijk, J.E. Baron (1946)- Plumb-line deflections and geoid in Eastern Indonesia as derived from gravity. Publ. Netherlands Geodetic Commission, Delft, p. 1-23.
(online at: https://www.ncgeo.nl/downloads/08DeVos.pdf)
(Calculations on gravity measurements by Vening Meinesz suggest irregularities in vertical gravity deflections and shape of geoid in E Indonesia. No discussion of geologic implications)

Doust, H. (2017)- Petroleum systems in Southeast Asian Tertiary basins. Bull. Geol. Soc. Malaysia 64 (Geol. Soc. Malaysia 50th Anniversary Issue 2), p. 1-16.
(online at: www.gsm.org.my/products/702001-101723-PDF.pdf)
(Productive Tertiary basins in SE Asia similar geodynamic developments, with 5 facies associations: (1) lacustrine (early synrift of Sundaland; mainly oil) (2) paralic (late synrift); (3) open marine shelf (post-rift, E Indonesia and Philippines) (4) deeper marine (post-rift; mainly gas) and (5) pre-Tertiary (E Indonesia and Thailand, mainly terrestrial). Around Borneo thick late postrift passive margin delta sequences with oil- and gas-prone coaly source rock; transported terrigenous organic material common in related deep marine environments and contributes to marine source facies. In SE Asia terrestrial and lacustrine source rocks rel. difficult to locate, variable in quality and often distributed in thin beds)

Earle, W. (1845)- On the physical structure and arrangement of the islands of the Indian Archipelago. J. Royal Geographic Soc. London 15, p. 358-365.
(online at: https://ia601700.us.archive.org/35/items/jstor-1797916/1797916.pdf)
(Early depiction of major structural elements elements of Indonesian archipelago: two continental blocks ('Great Asiatic Bank' in W and 'Great Australian Bank' in SE, surrounded by mountain and volcanic ranges)

Hall, R. (1998)- Cenozoic tectonics of South East Asia: myths, models and methods; reconstructions, implications and speculations. In: Offshore South East Asia Conf. (OSEA98), Singapore, SEAPEX, p. 69-72.
(Brief review of issues in SE Asia tectonic models. Three important periods in regional development: ~45 Ma, 25 Ma and 5 Ma, when plate boundaries and motions changed, probably due to major collision events. Little indication that India was driving force of tectonics in SE Asia. Principal 'myths': myth of India indentor, myth of Australian micro-continent collision events and myth of convergence in New Guinea. No figures)

Hall, R. (2017)- Southeast Asia: new views of the geology of the Malay Archipelago. Annual Review Earth Planetary Sci. 45, p. 331-358.
(Recent review of SE Asia tectonics. W part of SE Asia (Sundaland) heterogeneous and weak region, not underlain by thick, cold Precambrian lithosphere like typical cratons. In E subduction zones in different stages of development. Metamorphism in many parts of E Indonesia much younger than previously assumed. Close relationship between subduction rollback and extension, causing dramatic elevation of land, exhumation of deep crust and spectacular subsidence of basins)

Hall, R. (2018)- The subduction initiation stage of the Wilson cycle. In: R.W. Wilson et al. (eds.) Fifty years of the Wilson cycle concept in plate tectonics, Geol. Soc., London, Spec. Publ. 470, 23p.
(online at: http://sp.lyellcollection.org/content/specpubgsl/early/2018/02/12/SP470.3.full.pdf)
(Discussion of initiation of subduction process, with examples from East Indonesia)

Harris, R. & J. Major (2017)- Waves of destruction in the East Indies: the Wichmann catalogue of earthquakes and tsunami in the Indonesian region from 1538 to 1877. In: P. Cummins & I. Meilano (eds.) Geohazards in Indonesia: Earth science for disaster risk reduction, Geol. Soc, London, Spec. Publ. 441, p. 9-46.
(online at: http://geology.byu.edu/Home/sites/default/files/2016_harris_and_major_eq_catalog_small.pdf)
(Two volumes of Arthur Wichmann's Die Erdbeben Des Indischen Archipels (1918 and 1922) document 61 regional earthquakes and 36 tsunamis between 1538- 1877 in Indonesian region)

Irsyam, M., Hendriyawan, M. Asrurifak, M. Ridwan, F. Aldiamar, I.W. Sengara, S. Widiyantoro et al. (2013)- Past earthquakes in Indonesia and new seismic hazard maps for earthquake design of buildings and infrastructures. In: J. Chu et al. (eds.) Geotechnical predictions and practice in dealing with geohazards, Chapter 3, Springer, p. 33-46.

Koesoemadinata, R.P. (2016)- Introduction to the geology of Indonesia. Ikatan Alumni ITB, Bandung, p. 1-664.
(Preliminary edition of book on the geology of Indonesia, with focus on sedimentary basins)

Linthout, K., H. Helmers & J. Sopaheluwakan (1999)- Dual subduction and a Neogene microplate between Australia and the Banda Sea. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 92. *(Abstract only)*
(New tectonic model requires separate Timor microplate in Neogene, now part of Banda collision zone. Paleomagnetic data suggests Timor island contains allochthonous terranes that were separated from N Australian margin by >2500km in E Cretaceous; Late Neogene Banda Arc not related to subduction of 2500km of oceanic crust between Cretaceous- Pliocene; upside-down metamorphism of Late Miocene age in soles of ultramfites requires obduction of hot lithosphere, etc. No figures)

Miller, M.S., L.J. OŐDriscoll, N. Roosmawati, C.W. Harris, R.W. Porritt, S. Widiyantoro, L.T. da Costa, E. Soares, T.W. Becker & A. J. West (2016)- Banda Arc experiment- transitions in the Banda Arc-Australian continental collision. Seismological Research Letters 87, 6, p. 1-7.
(online at: http://www-udc.ig.utexas.edu/external/becker/preprints/mm16.pdf)
(About ongoing Banda Arc passive seismic experiment. Recorded >600 local earthquakes by June 2016 (see also Porritt et al. 2016))

Morley, R.J. (2018)- The complex history of mountain building and the establishment of mountain floras in Southeast Asia and Eastern Indonesia. In: C. Hoorn & A. Antonelli (eds.) Mountains, climate and biodiversity, Wiley, p. 475-494.

Morley, R.J. & H.P. Morley (2018)- Montane pollen indicates character of Mid Cenozoic uplands across Sunda Shelf. In: PESGB SEAPEX Asia Pacific E&P Conference, London, 4p *(Extended Abstract)*
(Montane pollen common element of palynomorph assemblages across Sundaland region and provides insight into paleoaltitudes and paleoclimates from Paleocene- Pliocene. In Late Eocene-Oligocene, Natuna Arch, Con Son Swell and Ammanite Ranges likely of sufficient altitude to support temperate broadleaf and cool temperate

conifer forests at summits, with altitudes of 2500m or more. Late Miocene-Pliocene uplifts in Borneo, (Kinabalu, Meratus) and Sumatra Barisan Range. Volcanoes of Java formed in Pleistocene)

Morley, R.J., H.P. Morley & T. Swiecicki (2017)- Constructing Neogene palaeogeographical maps for the Sunda region. In: SEAPEX Exploration Conference 2017, Singapore, Session 7, 10p. *(Extended Abstract)*
(online at: https://www.seapex.org/wp-content/themes/seapex/images/pdf/Session-7/7_1-Palynova.pdf)
(Generalized paleogeography maps of Sunda shelf for 10 time slices from E Miocene (23 Ma)- Pleistocene. Maximum development of 'Proto-Mahakam' delta at ~15-12 Ma, at time of limited clastic deposition rates along N Borneo margin (major deltas here Late Miocene- Pliocene). (abbreviated version of Morley et al. 2016))

Mukti, M.M., S. Aribowo & A. Nurhidayati (2018)- Origin of melange complexes in the Sunda and Banda arcs: tectonic, sedimentary, or diapiric melange. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conf. Series, Earth Environm. Science 118, 012003, p. 1-5.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012003/pdf)
(Brief review of possible different melange types of W Sumatra, Java, Timor. Remnants of Cretaceous subduction zone at Ciletuh, Luk Ulo and Meratus formed along S margin of Sundaland subduction and are known as tectonic melanges. Younger melange complexes in Sunda arc (Nias) and Banda arc (Timor) more likely diapiric melange)

Murphy, R.W. (1974)- Diversity of island arcs: Japan, Philippines, Northern Moluccas. Proc. SE Asia Petroleum Expl. Soc. (SEAPEX) 1, Singapore, p. 1-22.

Nugraha, A.D., H.A. Shiddiqi, S. Widiyantoro, M. Ramdhan, W. Wandono, S. Sutiyono & T. Handayani (2014)- Teleseismic double-difference earthquake hypocenter relocation in the Indonesian region. American Geophysical Union (AGU), Fall Meeting, San Francisco, T53C-4709 *(Abstract and poster)*
(New relocations of 25,000 earthquake hypocenters in Indonesian region, using teleseismic double-difference relocation algorithm. Average epicenter relocation shift 6.2 km)

Nugraha, A.D., H.A. Shiddiqi, S. Widiyantoro, C.H. Thurber, J.D. Pesicek, H. Zhang, S. Wiyono, M. Ramdhan, Wandono & M. Irsyam (2018)- Hypocenter relocation along the Sunda Arc in Indonesia, using a 3D seismic-velocity model. Seismological Research Letters 89, 2A, p. 603-612.
(Relocation of hypocenters of earthquakes between April 2009 to May 2015)

Nugrahanto, K., A.M.S. Nugraha, J. Chandra & A. Pradipta (2017)- Stratigraphy of eastern Indonesia. In: Petroleum systems of the Eastern Indonesia region- Guidance for hydrocarbon exploration in Eastern Indonesia, SKK Migas Memoir 1, Jakarta, p. 90-223.

Sapiie, B., I. Gunawan, A. Rudyawan, A. Pamumpuni, A.H. Harsolumakso, C.I. Abdullah, A.H.P. Kusumadjana et al. (2017)- Development of new tectonic model and paleogeography as challenge for future hydrocarbon exploration of Eastern Indonesia. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.

Setiawan, N.I., Y. Osanai & M.I. Khalif (2016)- U-Pb detrital zircon geochronology of metamorphic rocks from South Kalimantan, South Sulawesi, and Central Java, Indonesia: related metamorphism and tectonic implications in Central Indonesia region. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 289-292.
(High P metamorphics from Meratus in SE Kalimantan, Bantimala in S Sulawesi and Luk Ulo in C Java generally tied to NW-directed Cretaceous subduction. Zircons show no metamorphic rims and therefore viewed as detrital grains and provenance ages of metamorphic rock protoliths. Youngest detrital zircon ages in Bantimala- Meratus ~199-194 Ma, in Luk Ulo ~100 Ma. Ages from Bantimala glaucophane-quartz schist ~430-199 Ma (Silurian- E Jurassic), Barru garnet schist ~1930, 1730, 1600-1400 Ma, 1050 Ma (Proterozoic), and 550-280 Ma (Cambrian-Permian); Meratus epidote-barroisite schist 232 ± 39 Ma (Late Triassic; range 296-194 Ma); Luk Ulo gneiss mainly 127-100 Ma (E Cretaceous; also older)

Situmorang, B. (1977)- The western Indonesia fault pattern: tectonic significance with relation to wrench tectonics. Lemigas Scientific Contr. 1, 2, p. 5-18
(Four compression phases in W Indonesia since pre M Mesozoic: (1) N80°- 260E pre- M Mesozoic equatorial compression; (2) N158- 338E M Mesozoic meridional compression; (3) N2- 182E late Cretaceous- E Tertiary meridional compression, and (4) N174- 35E Plio-Pleistocene compression. Bantam trend three fault systems of different ages: M-Mesozoic left lateral strike-slip faults in C and S Sumatra, late Cretaceous- E Tertiary right lateral strike-slip faults in Sunda Strait and on Java, and Plio-Pleistocene left lateral strike-slip faults in Sumatra. M Mesozoic and late Cretaceous- E Tertiary compression responsible for creation of basic basin configuration in C and S Sumatra, W Java and W Java Sea areas. En echelon folds forming hydrocarbon bearing anticlines in Sumatra and Java related to Plio-Pleistocene compression)

SKK Migas (2017)- Petroleum systems of the Eastern Indonesia region- Guidance for hydrocarbon exploration in Eastern Indonesia. SKK Migas Memoir 1, Jakarta, p. 1-489.

Smit Sibinga, G.L. & L.F. de Beaufort (1925)- Over het ontstaan van den Maleischen Archipel. Verslagen Geol. Sectie Geol. Mijnbouwk. Gen. 3, 4, p. 64- .
(Summary of lecture on tectonics of Indonesian region, incorporating zoogeographic data)

Soesilo, J. (2012)- New Cretaceous tectonic setting of southeast Sundaland based on metamorphic evolution. Ph.D. Thesis, Inst. Teknologi Bandung (ITB), p. 1-224. *(Unpublished)*
(Soesilo et al. 2015: Includes new U-Pb dating of zircons in high-metamorphic rocks of Meratus (136.8 ± 3.6 and Luk Ulo (125-101 Ma))

Stille, H. (1943)- Malaiischer Archipel und Alpen. Abhandl. Preussischen Akademie Wissenschaften, Math.-Naturw. Klasse, Berlin, 16p.
('The Malay Archipelago and Alps'. Comparison of Indonesian region tectonics and Alps)

Susilo, I. Meilano, H.Z. Abidin, B. Sapiie, J. Efendi & A.B. Wijanarto (2016)- Preliminary result of Indonesian strain map based on geodetic measurements. Proc. 5th Int. Symposium on Earth hazard and disaster mitigation, AIP Conference Proc. 1730, 040004, 3p. *(Extended Abstract)*
(GPS measurements from 1993-2014 across Indonesia region provide 2-3mm-level precision of surface velocity estimates. GPS velocities used here to construct a crustal strain rate map. Highest strain rates along Sumatran fault, Sumatra-Java trench, North Molucca Sea and Seram- northern West Papua areas)

Tandon, K.A. (1998)- Study of models and controls for basin formation during continental collision: (1) Australian lithosphere along Banda Orogen (Indonesia) and (2) Alboran Sea Basin (Western Mediterranean). Ph.D. Thesis Louisiana State University, Baton Rouge, p. 1-197.
(online at: http://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=7792&context=gradschool_disstheses)

Tandon, K., J.M. Lorenzo, S. Widiyantoro & G.W. O'Brien (2002)- Variations in inelastic failure of subducting continental lithosphere and tectonic development: Australia-Banda Arc convergence. In: S. Stein & J.T. Freymueller (eds.) Plate boundary zones, American Geophys. Union (AGU), Geodynamics Series 30, p. 341-357.
(Effective Elastic Thickness map at incipient continental collision (Pliocene-Recent) along N Australian continental lithosphere along Banda orogen suggests more rigid N Australian lithosphere indenting between 125-127°E longitude. Sharp decrease in EET from 230-180 km on continental shelf (from Roti to W of Aru Island) down to ~40 km on continental slope and beneath Banda orogen favoring inelastic failure at start of continental subduction)

Tjia, H.D. (1987)- Tectonics, volcanism and sea level changes during the Quaternary in Southeast Asia. In: N. Thiramongkol (ed.) Proc. Workshop on Economic geology, tectonics, sedimentary processes and environment of the Quaternary in Southeast Asia, Haid Yai, Thailand 1986, IGCP 218/ Chulalongkorn University, Bangkok, p. 3-21.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1986/5083...)

(Sundaland Holocene sealevel rise 2cm/year after last deglaciation, reaching 4m above present 6000 yrs ago. Vertical uplifts of coral reef terraces and abrasion surfaces in region up to ~1300m. 500 Quaternary volcanic centers identified, 130 active. Etc.)

Van Bemmelen, R.W. (1933)- Moderne richtingen in de geotektoniek (in verband met de geotektonische positie van den Nederlandsch-Indischen archipel. De Miningenieur 14, 12, p. 205-212.
('Modern theories in geotectonics (in relation to the geotectonic position of the Netherlands Indies archipelago'. Discussion of tectonic theories. At that time in the Indonesian region were several supporters of the Wegener/ Holmes-inspired 'mobilist' school (Vening Meinesz, Escher, Umbgrove, Smit Sibinga), while Van Bemmelen with his undation theory is firmly in 'fixist' camp)

Van Bemmelen, R.W. (1936)- Kritische beschouwingen naar aanleiding van Bijlaard's theorie over plastische defomaties van de aardkorst. De Ingenieur in Nederlandsch-Indie 1936, (I), 7, p. 87-93.
('Critical discussion of Bijlaard's theory on plastic deformations of the Earth's crust')

Van Bemmelen, R.W. (1936)- Geologische contra mechanische analyse der geotektoniek (Geologische bezwaren tegen Bijlaard's theorie der lokal, plastische deformaties van de aardkorst). De Ingenieur in Nederlandsch-Indie 1936, (I), 11, p. 150-160.
('Geological versus mechanical analysis of geotectonics (Geological objections against Bijlaard's theory of local plastic deformations of the Earth's crust)'. Second part of discussion between Van Bemmelen and Bijlaard on tectonic theory for Indonesian region)

Van Bemmelen, R.W. (1954)- The geophysical contrast between orogenic and stable areas. Geologie en Mijnbouw 16, 8, p. 326-334.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0QzA4cUJzVmlrNGM/view)
(Extended commentary of Collette (1954) thesis 'On the gravity field of the Sunda region'. Includes chapter on interpretation of gravity field of West Indonesia. Positive anomaly with steep gradients over Wijnkoopsbaai (Ciletuh Bay) on Profile VI probably results from ophiolithic high-density rocks near surface. Belt of negative anomalies over Kendeng zone of NE Java result of either bending down of crust and filling with low-density sediments or small asthenolithic blisters at base of sialic crust. Etc. With Collette reply)

Van Bemmelen, R.W. (1978)- The present formulation of the undation theory. Zeitschrift Geologische Wissenschaften 6, 6, p. 523-540.
('Final?' review of Van Bemmelen's Undation theory, with short summary how it drives Indonesian tectonics)

Vening Meinesz, F.A. (1933)- The mechanism of mountain-formation in geosynclinal belts. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam 36, p. 372-377.
(online at: www.dwc.knaw.nl/DL/publications/PU00016417.pdf)
(Speculation on process of mountain building, mainly driven by VM's observation of long belts of highly negative gravity anomalies and associated earthquake centra in Indonesian region. Apparent crustal downbuckling and associated folding-thrusting are early stages of alpine-style mountain building. 'Probable that the earth's crust is pushing laterally under the islands of the Indonesia orogenic belt'. (No figures)

Vening Meinesz, F.A. (1934)- Gravity expeditions at sea 1923-1930, Vol. II. Report of the gravity expedition in the Atlantic of 1932 and The interpretation of the results. Netherlands Geodetic Commision, Waltman, Delft, p. 1-208.
(online at: https://www.ncgeo.nl/downloads/04VeningMeinesz.pdf)
(Includes chapters on 'Relation between geology and gravity field in the East Indian Archipelago' and 'Theories on the origin of the East Indian Archipelago' by Umbgrove (p. 140-182) and 'Relations between submarine topography and gravity field' by Kuenen (p, 183-194))

Watkinson, I.M. & R. Hall (2017)- Fault systems of the eastern Indonesian triple junction: evaluation of Quaternary activity and implications for seismic hazards. In: P. Cummins & I. Meilano (eds.) Geohazards in Indonesia: Earth science for disaster risk reduction, Geol. Soc, London, Spec. Publ. 441, p. 71-120.

(Study of 27 fault systems in Eastern Indonesia. Most fault systems highly segmented, many linked by narrow (<3 km) stepovers to form quasi-continuous segments capable of M> 7.5 earthquakes. Sinistral shear across soft-linked Yapen and Tarera- Aiduna faults and continuation into transpressive Seram fold thrust belt perhaps most active belt of deformation. Palu-Koro Fault of Sulawesi long, straight and capable of super shear ruptures, considered to be greatest seismic risk in region)

Yong, C.Z., P.H. Denys & C.F. Pearson (2017)- Present-day kinematics of the Sundaland plate. J. Applied Geodesy 11, 3, p. 169-177.

I.2. SE Asia Regional Geology, Tectonics, Paleobiogeography (79)

Ahmad, S., W. Jalal, F. Ali, M. Hanif, Z. Ullah, S. Khan, A. Ali, I.U. Jan & K. Rehman (2015)- Using larger benthic foraminifera for the paleogeographic reconstruction of Neo-Tethys during Paleogene. Arabian J. Geosciences 8, 7, p. 5095-5110.
(Comparison of Paleogene larger foraminifera from E part of NeoTethys in Kohat Basin of Pakistan compared with W, C Neo-Tethys to establish Paleogene migration pathways in Neo-Tethys. LBF species mostly confined to blocks derived from Gondwana (Iran, Iraq, Pakistan, India, Indonesia) and Laurasia (Italy, France, Spain), with only few on margin of Gondwanan continents (Oman). Includes brief review of Indonesian LBF)

Buerki, S., F. Forest & N. Alvarez (2014)- Proto-South-East Asia as a trigger of early angiosperm diversification. Botanical J. Linnean Soc. 174, p. 326-333.
(online at: https://academic.oup.com/botlinnean/article/174/3/326/2416344)
(Angiosperms (flowering seed plants) originated abruptly in E Cretaceous (Hauterivian), followed by rapid diversification in Hauterivian-Aptian. Islands in SE Asia region today probably played major role in angiosperm diversification in Late Jurassic- E Cretaceous (but no discussion of support from actual fossil botanical records of SE Asia; HvG)

Bunopas, S., P. Vella, H. Fontaine, S. Hada, C. Burrett, P. Haines, S. Potisat, T. Wongwanich, P. Chaodumrong, K.T. Howard & S. Khositanont (2002)- Shan-Thai and Indochina, Lower Paleozoic Gondwana derived paired microcontinents growing Pangea by first continent-continent collision in Late Norian with South China suffered second continent-continent collision of India to Asia. In: Geodynamic processes of Gondwanaland-derived terranes in East and Southeast Asia, their crustal evolution, emplacement and natural resources potential, Phitsanulok 2002, p. 120-133.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_3/2547/9535.pdf)

Burrett, C., M. Udchachon & H. Thassanapak (2016)- Palaeozoic correlations and the palaeogeography of the Sibumasu (Shan-Thai) terrane - a brief review. Research and Knowledge 2, 2, p. 1-17.
(online at: https://rk.msu.ac.th/wp-content/uploads/2017/09/01-Clive-Burrett4-compressed.pdf)
(Review of Cambrian-Permian predominantly shelfal marine siliciclastics and carbonates of Sibumasu Terrane in NW Malaysia (Langkawi), S Thailand (Satun), Shan States of Myanmar and Baoshan Block of W Yunnan. Continuous platform sequences in W Sibumasu and deep-water shales and cherts in E Sibumasu, without significant unconformities. Silurian-Devonian faunas mainly peri-Gondwana distributions. Sibumasu part of Australia until E Permian breakup (oriented with Baoshan near Himalayan margin; Sumatra closer to West Papua). Late Triassic (late Norian?) collision with Indochina/Sukhothai Arc terrane)

Cai, F., L. Ding, A.K. Laskowski, P. Kapp, H. Wang, Q. Xu & L. Zhang (2016)- Late Triassic paleogeographic reconstruction along the Neo-Tethyan Ocean margins, southern Tibet. Earth Planetary Sci. Letters 435, p. 105-114.
(online at: https://manuscript.elsevier.com/S0012821X15007906/pdf/S0012821X15007906.pdf)
(Petrographic and detrital zircon analyses of U Triassic sandstones from N margin of India (Tethyan Himalaya Sequence, S Tibet) dominated by Indian-affinity Precambrian detrital zircons, but nearby areas with populations of Permian- E Jurassic (291-184 Ma) zircons for which there is no known Indian source, so probably derived from continental crustal fragments that were adjacent to NW margin of Australia. May be part of Late Triassic submarine fan along N Australian shelf, together with age-equivalent beds in W Sulawesi, Timor and W Papua with similar zircon age populations. U Triassic Mailonggang Fm from S margin of Eurasia (S Lhasa terrane) dominated by Permian zircons from proximal Lhasa terrane sources; differs from Tethyan Himalaya beds, suggesting separation from Greater India by Neo-Tethys Ocean)

Cai, Z.R., J.Y. Xiang, Q.T. Huang, Z.X. Yin, Y.J. Yao, H.L. Liu & B. Xia (2016)- Textural and map contrasts of the subduction-collision boundary between the Philippine Arc and the Sunda margin. Arabian J. Geosciences 9, 4, p. 1-10.

(Review of active subduction-collision boundary between Philippine Arc and Sunda margin, from Taiwan, S along Manila Trench, through thrust fault zone of Mindoro, to Negros Trench at E edge of Sulu Sea, then through thrust fault zone of Zamboanga to Cotabato Trench at E side of Celebes Sea/ Sangihe Arc)

Chatterjee, S. & S. Bajpai (2016)- Indiaôs northward drift from Gondwana to Asia during the Late Cretaceous-Eocene. Proc. Indian Nat. Science Academy 82, 3, Spec. Issue, p. 479-487.
(online at: https://insajournals.in/insaj/index.php/proceedings/article/view/225/125)
(Brief version of Chatterjee et al. 2017)

Chatterjee, S., C.R. Scotese & S. Bajpai (2017)-The restless Indian plate and its epic voyage from Gondwana to Asia: its tectonic, paleoclimatic, and paleobiogeographic evolution. Geol. Soc. America, Spec. Paper 529, p. 1-147.
(Review of tectonic evolution of India plate since breakup of Gondwana in Late Jurassic, partial isolation in E Cretaceous, collision with Kohistan-Ladakh arc at ~80 Ma (= continuation of Woyla Arc of W Sumatra?), Cretaceous- Paleogene boundary Shiva impact and Deccan volcanism. In Late Cretaceous (~67 Ma), Indian plate motion acceleration between two transform faults that facilitated N-ward movement, etc.)

Chiu, J.M., B.L. Isacks & R.K. Cardwell (1991)- 3-D configuration of subducted lithosphere in the western Pacific. Geophysical J. Int. 106, p. 99-111.
(online at: https://academic.oup.com/gji/article/106/1/99/740584)
(Interesting 3-D displays of subducting slabs in W Pacific region (incl. Indonesia) (Benioff-Wadati zones of deep earthquake hypocenter distributions. Depth of deepest earthquakes decreases in W direction along Sunda Arc)

Cobbing, E.J. & P.E.J. Pitfield (1986)- South-East Asia granite project- Field report for Thailand 1985. British Geol. Survey, Overseas Report MP/86/16/R, p. 1-213.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1985/1633.pdf)

Dewey, J.F., S. Cande, S. & W.C.I. Pitman (1989)- Tectonic evolution of the India/ Eurasia collision zone. Eclogae Geol. Helvetiae 82, p. 717-734.
(online at: http://dx.doi.org/10.5169/seals-166399)
(Since collision of India with Eurasia at ~45 Ma in M Eocene, N-S intracontinental convergence continued at ~5 cm/ year. Convergence accommodated principally by lithospheric thickening in widening zone between E transpressive sinistral megashear from Makran- Baikal and W dextral megashear from Sumatra to Tanlu Fault System. Lateral extrusion or escape was not major factor in accommodating India/Eurasia convergence)

Duan, L., Q.R. Meng, N. Christie-Blick & G.L. Wu (2017)- New insights on the Triassic tectonic development of South China from the detrital zircon provenance of Nanpanjiang turbidites. Geol. Soc. America (GSA) Bull., 11p.
(Triassic turbidites of Nanpanjiang basin reflect collision between S China and Indochina blocks. Turbidite system filled primarily from E to W. U-Pb ages and Hf isotope data for detrital zircons from M Triassic turbidites suggest provenance not from collisional orogen, but from poorly preserved arc at convergent plate boundary of S China. Zircon ages clusters: ~250-300 Ma, 350-400 Ma, 400-550 Ma, 900-1050 Ma and ~1600-1950 Ma. Andean-type (Paleo-Pacific subduction) Cathaysian margin of S China probable source for much of sediment of S China block. New model for Triassic tectonic evolution of S China)

Duan, L., Q.R. Meng, G.L. Wu & S.X. Ma (2012)- Detrital zircon evidence for the linkage of the South China block with Gondwanaland in early Palaeozoic time. Geol. Magazine 149, 6, p. 1124-1131.
(Detrital zircons from Lower Devonian sections in S China block dominant Grenvillian and Pan-African populations, similar to E Paleozoic from Gondwana, Tethyan Himalaya and WAustralia. Hf isotopes indicate contributions of juvenile crust at 1.6 Ga and 2.5 Ga. S China block was integral part of E Gondwana in E Paleozoic, not continental block in Paleo-Pacific or fragment of Laurentia)

Fan, W., Y. Wang, Y. Zhang, Y. Zhang, F. Jourdan, J. Zi & H. Liu (2015)- Paleotethyan subduction process revealed from Triassic blueschists in the Lancang tectonic belt of Southwest China. Tectonophysics 662, p. 95-108.
(Subduction of Paleotethys Ocean and subsequent continental collision recorded in blueschists in Lancang SE Paleotethyan belt in SW China. Suyi blueschists zircon U-Pb age of 260 ± 4 Ma and glaucophane formed during prograde metamorphism with 40Ar/39Ar plateau age of 242 ± 5 Ma (M Trias). Protolith formed at 260 Ma and originated from basaltic seamount. Basaltic rocks subducted down to 30-35 km under Lincang arc to form epidote blueschists at ~242 Ma. Blueschists subsequently transported to shallower crustal levels in response to continuous underthrust of subducted slab and continent–continent collision in M-L Triassic)

Fang, Wu (1989)- Paleozoic paleomagnetism of the South China block and the Shan Thai block: The composite nature of Southeast Asia. Ph.D. Thesis, University of Michigan, p. 1-165.
(Paleomag of Paleozoic samples from E Yunnan (S China Block) and W Yunnan (N end of Shan-Tai Block). Contrasting paleolatitudes for Devonian samples: equatorial position for E Yunnan, of ~40° for W Yunnan, which probably was part of Gondwana supercontinent)

Fang, Z.J., Z.C. Zhou & M.J. Lin (1992)- On several questions concerning Changning-Menglian suture from perspect of stratigraphy. J. Stratigraphy 16, p. 292-303.

Fyhn, M.B.W., P.F. Green, S.C. Bergman, J. Van Itterbeeck, T.V. Tri, P.T. Dien, I. Abatzis, T.B. Thomsen, S. Chea, S.A.S. Pedersen et al. (2016)- Cenozoic deformation and exhumation of the Kampot Fold Belt and implications for south Indochina tectonics. J. Geophysical Research, Solid Earth, 121, 7, p. 5278-5307.
(Latest Mesozoic- earliest Cenozoic deformation of Sundaland core between SE Asian fusion and Cenozoic era of rifting and basin formation. In S Cambodia and Vietnam major latest Cretaceous- Paleocene thrusting and uplift of Kampot Fold Belt and surrounding regions, with up to ~11 km exhumation. Latest Cretaceous-Paleocene orogenesis affected much of greater Indochina, probably due to plate collision along E Sundaland or combination of collisions along E and W Sundaland. AFTA and ZFTA data document protracted cooling of Cretaceous granites and locally elevated thermal gradients 10's of My afterr emplacement. Thermalgradient stabilized by E Miocene time, and Miocene cooling probably reflects renewed denudation pulse)

Golonka, J., A. Embry & M. Krobicki (2018)- Late Triassic global plate tectonics. In: L.H. Tanner (Ed.) The Late Triassic World, Earth in a time of transition, Topics in Geobiology 46, Springer International, Chapter 2, p. 27-57.
(Late Triassic global plate reconstruction, at time of Early Cimmerian and Indosinian orogenies that closed Paleotethys Ocean (earlier in Alpine-Carpathian-Mediterranean area, and latest in SE Asia). Pulling force of N-dipping subduction along N margin of Neotethys (= Mesotethys) caused drifting of new set of plates from passive Gondwana margin, dividing Neotethys Ocean (= opening of Cenotethys; Lhasa plate separation))

Hall, R. & H. Breitfeld (2017)- Nature and demise of the Proto-South China Sea. Bull. Geol. Soc. Malaysia 63 (Geol. Soc. Malaysia 50th Anniversary Issue 1), p. 61-76.
(online at: www.gsm.org.my/products/702001-101708-PDF.pdf
(Proto-South China Sea should be used only for oceanic slab subducted beneath Sabah and Cagayan between Eocene- E Miocene; Paleo-Pacific Ocean used here for lithosphere subducted under Borneo in Cretaceous. Good evidence for subduction between Eocene- E Miocene below Sabah, and W limit of Proto-S China Sea subduction was W Baram Line; subducted slab imaged in lower mantle by P-wave tomography. Present-day NW Borneo Trough and Palawan Trough not subduction trenches: NW Borneo Trough flexural response to gravity-driven deformation of Neogene sediment wedge NW of Sabah. Palawan Trough is continent-ocean transition at SE edge of modern S China Sea)

Hao, S. & P.G. Gensel (1998)- Some new plant finds from the Posongchong Formation of Yunnan, and consideration of a phytogeographic similarity between South China and Australia during the Early Devonian. Science in China, ser. D, 41, 1, p. 1-13.
(online at: http://engine.scichina.com/publisher/scp/journal/Sci%20China%20Earth%20Sci-D/41/1/10.1007/BF02932414?slug=full%20text)

(E Devonian plants from Posongchong Fm of SE Yunnan, suggest E Devonian NE Gondwana phytogeographic unit in Equatorial position, comprising Australia, S China Block and perhaps Shan-Thai Block)

He, C., S. Dong, M. Santosh & X. Chen (2012)- Seismic evidence for a geosuture between the Yangtze and Cathaysia Blocks, South China. Nature Scientific Reports 3, 2200, p. 1-7.
(online at: https://www.nature.com/articles/srep02200.pdf)
(S China block composed of sub-blocks Yangtze in NW and Cathaysia in SE, , which collided and amalgamated in Neoproterozoic along Jiangnan Orogen. Felsic lower crust of Cathaysia Block and Jiangnan orogenic belt may represent fragments derived from Gondwana supercontinent)

Huang Z.C., D.P. Zhao & L. Wang (2015)- P wave tomography and anisotropy beneath Southeast Asia: Insight into mantle dynamics. J. Geophysical Research, Solid Earth, 120, 7, p. 5154-5174.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2015JB012098/epdf)
(Tomographic images of mantle under SE Asia show high-velocity zones high-V zones around SE Asia which generally represent subducting slabs. Slabs generally extend down to the Mantle Transition Zone. Low-velocity zones with trench-normal anisotropy in uppermost mantle, indicating back-arc spreading or secondary mantle-wedge flow induced by slab subduction. Trench-parallel anisotropy in deep upper mantle reflects structures in subducting slab or in upper mantle surrounding slab. Gap in slab under area between Sumatra and Java)

Hutchison, C.S. (2005)- The geological framework. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 3-23.
(Review of SE Asia tectonic framework)

Jones, P.J., I. Metcalfe, B.A. Engel, G. Playford, J. Rigby, J. Roberts, S. Turner & G.E. Webb (2000)- Carboniferous palaeobiogeography of Australasia. In: A.J. Wright (ed.) Palaeobiogeogeography of Australasia, Mem. Assoc. Australasian Palaeontologists (AAP) 23, p. 259-286.
(Mainly on Carboniferous biostratigraphy of Australian region and Australian-derived SE Asia terranes)

Kato, H., A. Reedman, Y. Shimazaki et al. (eds.) (2016)- Stone heritage of East and Southeast Asia. Geol. Survey of Japan and CCOP, Thailand, p. 1-234.
(online at: www.ccop.or.th/download/pub/ccop_stone_book_low_res.pdf)
(Examples of use of natural stone in construction of temples, monuments, castles, forts, etc., in 9 SE Asian countries. Incl. chapter on Indonesia by S. Baskoro (not much detail on rock types and nothing on West Papua)

Khan, P.K., S. Shamim, M. Mohanty, P. Kumar & J. Banerjee (2017)- Myanmar-Andaman-Sumatra subduction margin revisited: insights of arc-specific deformations. J. Earth Science (China) 28, 4, p. 683-694.
(Analysis of concave and convex sectors of subducting Indian Ocean plate along >3000km long Myanmar-Andaman-Sumatra active margin from earthquake data)
(online at: http://en.earth-science.net/PDF/20170721111758.pdf)

Kobayashi, T. (1944)- Reciprocal development of radiolarian rocks as between Asiatic and Australian sides. Proc. Imperial Academy (Tokyo) 20, 4, p. 234-238.
(online at: https://www.jstage.jst.go.jp/article/pjab1912/20/4/20_4_234/_pdf)
(Brief review of radiolarian bearing formations in Japan, SE Asia, Australia. Sambosan and Higashigawa suites of Japan mainly Permo-Triassic age. Also in chert series in Malay Peninsula, Tuhur Fm of Sumatra and Danau Fm in Borneo. Danau Fm suggested by Hinde to be Jurassic age, but here thought to be mostly Permo-Triassic (based on Krekeler observations). Danau facies appears continues into Philippines via Palawan and Jolo or Sulu arcs, where radiolarian cherts are called Babuyan Fm

Li, C.F. & J. Wang (2016)- Variations in Moho and Curie depths and heat flow in Eastern and Southeastern Asia. Marine Geophysical Research 37, 1, p. 1-20.
(Oldest continental and oceanic domains (N China craton, Pacific and Indian Ocean) thermally perturbed by events probably linked to small-scale convection or serpentinization in mantle and volcanic seamounts and ridges. W Philippine Sea Basin anomalously small Curie depths. W Pacific marginal seas have lowest Moho

temperature; contrary in most parts of easternmost Eurasian continent.Magmatic processes feeding Permian Emeishan large igneous province along plate boundary may be caused by tectonic processes along plate margins, rather than by deep mantle plume)

Li, S., E. Advokaat, D.J.J.van Hinsbergen, M. Koymans, C. Deng & R. Zhu (2017)- Paleomagnetic constraints on the Mesozoic-Cenozoic paleolatitudinal and rotational history of Indochina and South China: review and updated kinematic reconstruction. Earth-Science Reviews 171, p. 58-77.
(Review of paleomagnetic data suggests (1) no significant rotations of S China Block relative to Eurasia since latest Jurassic; (2) No paleomagnetically resolvable S-ward motion of Indochina Block (inclinations lower than expected, probably due to inclination shallowing in sediments; (3) large rotating blocks in N Indochina and SE Tibetan margin (up to 70° CW), more than ~10-15° rotation of stable SE Indochina Block. Blocks bounded by fold-thrust belts and strike-slip faults, accommodating Cenozoic block rotations. NW part of Indochina extruded 350 km more along Ailao Shan-Red River fault than SE part, accommodated by internal NW Indochina rotation and deformation. 250 km of extrusion of SE part of Indochina)

Li, S., B.M. Jahn, S. Zhao, L. Dai, X. Li, Y. Suo, L. Guo, Y.M. Wang et al. (2017)- Triassic southeastward subduction of North China Block to South China Block: insights from new geological, geophysical and geochemical data. Earth-Science Reviews 166, p. 270-285.
(Subduction prior to assembly of S China and N China blocks traditionally considered directed N-ward, but new tectonic model suggests SE ward subduction of N China under S China. S margin of N China Block passive margin in Triassic, without arc magmatism, etc. Suture lateral subduction zone rather than collision zone)

Li, S.Z., S.J. Zhao, X. Liu, H.H. Cao, S. Yu, S., Li, I. Somerville, S.Y. Yu & Y.H. Suo (2017)- Closure of the Proto-Tethys Ocean and Early Paleozoic amalgamation of microcontinental blocks in East Asia. Earth-Science Reviews, p. *(in press)*
(Proto-Tethys paleo-ocean located between Tarim/N China and Sibamusu/Baoshan blocks opened from rifting of supercontinent Rodinia and mainly closed at end of E Paleozoic. Several continents/microcontinents in ocean. S suture marked by Longmu Co-Shuanghu-Changning-Menglian Suture. Tarim- Alax- N China Block to N of the Proto-Tethys Ocean no clear affinity with Gondwana, had S-ward subduction polarity and collided with Gondwana along N margin of Gondwana in E Devonian. Etc.)

Liao, S.Y., F.G. Yin, Z.M. Sun, D.B. Wang, Y. Tang & J. Sun (2013)- Early Middle Triassic mafic dikes from the Baoshan subterrane, western Yunnan: implications for the tectonic evolution of the Palaeo-Tethys in Southeast Asia. Int. Geology Review 55, 8, p. 976-993.
(Zircon U-Pb data indicate tholeiitic dikes similar to enriched mid-ocean ridge basalts emplaced at N part of Sibumasu terrane at 240± 3 Ma. Mafic dikes interpreted to be generated during suturing of Baoshan (Sibumasu) and Simao (Indochina) subterranes)

Li, X.X. (1986)- The mixed Permian Cathaysia-Gondwana flora. The Palaeobotanist 35, 2, p. 211-222.
(online at: http://14.139.63.228:8080/pbrep/bitstream/123456789/1262/1/PbV35N2_211.pdf)
(Mixed Gondwanan- Cathaysian floras from Turkey to Saudi Arabia, Kashmir to Western New Guinea)

Liu, B.P., Q.L. Feng & N.Q. Fang, J. Jia & F. He (1993)- Tectonic evolution of paleo-Tethys poly-island-ocean in the Changning-Menglian and Lancangjiang belts, southwestern Yunnan, China. Earth Science, Journal of China University of Geoscience 18, 5, p. 529-539. *(in Chinese, with English Abstract)*
(Changning-Mengliang belt between Baoshan-Gengma and Simao-Lincang massifs is suture zone, representing closed branch of Devonian- M Triassic poly-island Paleotethys Ocean. Lincang Massif probably isolated Gondwana-affinity terrane that accreted to W margin of Simao massif in M Permian. May be connected to Nan-Uttaradit suture of N Thailand before Late Permian))

Liu, B.P., Q.L. Feng, N.Q. Fang, J. Jia & F. He, W. Yang & D. Liu (1997)- Tectono-paleogeographic framework and evolution of the Paleotethyan archipelagoes ocean in Changning-Menglian belt, Western Yunnan, China. In: Devonian to Triassic Tethys in Western Yunnan, China University of Geosciences Press, p. 1-12.

Liu, S., Tao Qian, Wangpeng Li, Guoxing Dou, and Peng Wu (2015)- Oblique closure of the northeastern Paleo-Tethys in central China. Tectonics 34, 10.1002/2014TC003784, p. 1-22.
(NE branch of Paleo-Tethys Ocean that separated N China and South China plates closed by oblique collision along two N-dipping suture zones in C China. Shangdan suture developed in Late Paleozoic; Mianlue suture to S in M-L Triassic (collisional sutures obscured by thrust faults in S Qinling-Dabieshan orogen))

Metcalfe, I. (1997)-The Palaeo-Tethys and Palaeozoic- Mesozoic tectonic evolution of Southeast Asia. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 1, p. 260-272.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(Main Paleotethys Ocean basin, which separates Late Paleozoic Gondwanaland terranes from Late Paleozoic Cathaysian terrane, represented by Triassic suture zones Lancangjian and Changning-Menglian (SW China), Nan-Uttaradit and Sra Kaeo (Thailand) and Bentong-Raub (Peninsular Malaysia). Subsidiary branches of Paleotethys represented by Ailaoshan suture in Yunnan, Song Ma suture in Vietnam (E Carboniferous) and other possible suture segments in N Thailand and S China. Radiolarian assemblages from deep marine cherts show Paleotethys opened in M-L Devonian and closed in Late Triassic)

Metcalfe, I. (2017)- Tectonic evolution of Sundaland. Bull. Geol. Soc. Malaysia 63 (Geol. Soc. Malaysia 50th Anniversary Issue 1), p. 27-60.
(online at: www.gsm.org.my/products/702001-101709-PDF.pdf)
(Latest in series of Metcalfe review papers on SE Asian plate tectonics. By Late Triassic principal continental core blocks of Sundaland (Sibumasu, Sukhothai Arc, Simao, Indochina) had amalgamated and collided with S and N China to form proto-E and SE Asia. Paleo-Tethys represented by Changning-Menglian, Chiang Mai-Chiang Rai, Chanthaburi and Bentong-Raub Suture Zones that form boundary between Sibumasu and Sukhothai Arc. Sukhothai Arc formed on margin of Indochina in Carboniferous, then separated by back-arc spreading in Permian. Jinghong, Nan-Uttaradit and Sra Kaeo Sutures represent this closed back-arc basin. Cathaysian W Sumatra Block with its continental margin arc may well be displaced segment of Sukhothai Arc system, translated outboard of Sibumasu by strike-slip tectonics in Triassic. W Burma Block was already attached to Sundaland before Late Triassic and is likely disrupted part of Sibumasu. Nature of any hidden continental core of SW Borneo remains enigmatic. Etc.)

Niu, Y., Y. Liu, Q. Xue, F. Shao, S. Chen, M. Duan, P. Guo, H. Gong, Y. Hu, Z. Hu, J. Kong et al. (2015)- Exotic origin of the Chinese continental shelf: new insights into the tectonic evolution of the western Pacific and eastern China since the Mesozoic. Science Bull. (China) 60, 18, p. 1598-1616.
(online at: http://engine.scichina.com/publisher/scp/journal/SB/60/18/10.1007/s11434-015-0891-z?slug=full%20text)
(Basement of continental shelf beneath E and S China Seas may be of exotic origin, geologically unrelated to continental lithosphere of E China. Jurassic-Cretaceous granitoids in region associated with W Pacific oceanic subduction. 'Sudden' termination of granitoid magmatism at ~88 ± 2 Ma suggests trench jam at ~100 Ma, pointing to collision of buoyant oceanic plateau or microcontinent. Jammed trench (suture) located near coastline of SE continental China. Trench jam at ~100 Ma led to re-orientation of Pacific plate motion, making boundary between Pacific plate and newly accreted plate of E Asia transform fault E of exotic-origin continental shelf. This explains apparent ~40 Myr magmatic gap from ~88 to ~50 Ma)

Pitfield, P.E.J. (1987)- Report on the geochemistry of the Tin islands of Indonesia. British Geological Survey, Overseas Directorate, Report No. MP/87/9/R, p.

Rong, J., A.J. Boucot, Y.Z. Su & D.L. Strusz (1985)- Biogeographical analysis of late Silurian brachiopod faunas, chiefly from Asia and Australia. Lethaia 28, 1, p. 39-60.
(Silurian shallow marine brachiopod Retziella Fauna known from SW Tienshan, China, N Vietnam and E Australia. Possibly also in N Korea, C Pamirs, Afghanistan and New Zealand (Sino-Australian Province). Coeval Tuvaella Fauna occurs only in S marginal belt of Siberian Plate (Mongolo-Okhotsk Province))

Satyana, A.H. (2018)- Contribution of post-2000's petroleum exploration in Indonesia to some issues of tectonics: solutions to problems, new knowledge, and hydrocarbon implications. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-591-G, 23p.
(Recent petroleum exploration contributed to solving debates on tectonics of Indonesia: (1) N Makassar Straits opening mechanism and nature of basement (extended continental crust from interpretation of volcanic geochemistry in well), (2) origin of Sumba micro-continent (rifted block from Sulawesi), (3) basement of Cendrawasih Bay (Pacific Plate oceanic/ arc volcanic crust). Some issues now better defined: (4) forearc areas of Sumatra- W Java (with Paleogene rift structures), and (5) foredeep areas of Seram-Tanimbar-Timor troughs (foredeeps, not subduction troughs). New knowledge of tectonics: (6) presence of Late Paleozoic-Mesozoic sections of Gondwanan micro-continents in East Java and S Makassar Straits (from interpretation of seismic and geochemical data), and (7) multiple rifts/terranes of Gorontalo Basin (from seismic interpretation))

Searle, M.P., L.J. Robb & N.J. Gardiner (2016)- Tectonic processes and metallogeny along the Tethyan mountain ranges of the Middle East and South Asia (Oman, Himalaya, Karakoram, Tibet, Myanmar, Thailand, Malaysia). In: J. Richards (ed.) Tectonics and metallogeny of the Tethyan orogenic belt, Soc. Economic Geol., Spec. Publ. 19, Chapter 12, p. 301-327.
(Genesis of mineral deposits in Tethyan collision zones of Asia, in: (1) oceanic crust (hydrothermal Cu-Au; Fe, Mn nodules) and mantle (Cr, Ni, Pt), in ophiolite complexes around Arabia/India- Asia collision (Oman, to Myanmar, Andaman Islands); (2) island arcs and ancient subduction complexes (VMS Cu-Zn-Pb), in Dras-Kohistan arc (Pakistan) and arc complexes along Myanmar-Andaman segment; (3) Andean-type margins (Cu-Au-Mo porphyry; epithermal Au-Ag) in Jurassic-Eocene Transhimalayan ranges and Myanmar; (4) continent-continent collision zones prominent along Myanmar-Thailand-Malaysia Sn-W granite belts, less common along Himalaya. Mogok metamorphic belt of Myanmar known for gemstones associated with regional high T metamorphism (ruby, spinel, sapphire, etc))

Sengor, A.M.C., A. Cin, D.B. Rowley & S.Y. Nie (1993)- Space-time patterns of magmatism along the Tethysides: a preliminary study. J. Geology 101, 1, p. 51-84.
(Five maps of magmatism along the Tethysides for: Late Carboniferous and Permian (320-248 Ma), Triassic and E Jurassic (247-188 Ma), M Jurassic-Early Late Cretaceous (187-98 Ma), early Late Cretaceous-early Cenozoic (97-25 Ma), and late Cenozoic (24-0 Ma))

She, Z., C. Ma, Y. Wan, J. Zhang, M. Li, L. Chen, W. Xu, Y. Li, L. Ye & J. Gao (2012)- An Early Mesozoic transcontinental palaeoriver in South China: evidence from detrital zircon U-Pb geochronology and Hf isotopes. J. Geol. Soc., London, 169, p. 353-362.
(Late Triassic- E Jurassic fluvial sandstones from S China Craton basins with four similar detrital zircon age populations: 2.6-2.4 Ga, 2.0-1.7 Ga (with remarkable age peaks at ~1.85 Ga), 850-700 Ma and 480-210 Ma. Hf values between -22.5 and +3.6, suggest derivation from reworked Archaean crust and minor late Paleoproterozoic juvenile crustal additions. Correlate well with E Cathaysia Block (not Yangtze). Similarities in provenance of Triassic- Jurassic around S China Craton delineate E-W sediment belt from Korea to W China and ~2000km long W-draining transcontinental paleo-river feeding basins in Korea, S and W China)

Shi, G.R., Z.Q. Chen & L.P. Zhan (2005)- Early Carboniferous brachiopod faunas from the Baoshan Block, west Yunnan, southwest China. Alcheringa 29, 1, p. 31-85.
(38 brachiopod species from Yudong Fm in W Yunnan. Associated coral and conodont faunas suggest late Tournaisian (E Carboniferous) age, possibility extending into earlyVisean)

Shi, X., J. Kirby, C. Yu, A. Jimenez-Diaz & J. Zhao (2017)- Spatial variations in the effective elastic thickness of the lithosphere in Southeast Asia. Gondwana Research 42, p. 49-62.
(Maps of spatial variations of Effective elastic thickness for SE Asia from coherence of topography and Bouguer gravity anomaly data. Results suggest E Borneo may share similar crustal basement, and represent broad tectonic zone of destroyed Mesotethys Ocean extending from W-C Java, through E Borneo to N Borneo. Indosinian suture between Indochina and Sibumasu may extend further SE across Billiton to offshore SE Borneo, and Singapore platform and SW Borneo may belong to same block)

Simmons, N.A., S.C. Myers, G. Johannesson, E. Matzel & S.P. Grand (2015)- Evidence for long-lived subduction of an ancient tectonic plate beneath the southern Indian Ocean. Geophysical Research Letters 42, 10.1002/2015GL066237, p. 1-9.
(New global tomographic image shows slab-like structure under S Indian Ocean, interpreted as ancient tectonic plate that sank into mantle along extensive intra-oceanic subduction zone that retreated SW across Tethys Ocean in Mesozoic. Jurassic-E Cretaceous oceanic volcanic arc system of Woyla terranes of W Sumatra may represent exposed remnant of this intra-oceanic system)

Song, P., L. Ding, Z. Li, P.C. Lippert, T. Yang, X. Zhao, J. Fu & Y. Yue (2015)- Late Triassic paleolatitude of the Qiangtang block: implications for the closure of the Paleo-Tethys Ocean. Earth Planetary Sci. Letters 424, p. 69-83.
(U Triassic Jiapila Fm volcanics on N edge of Qiangtang block of C Tibet (34.1°N) dated to 204-213 Ma. Paleomagnetic data suggest Late Triassic latitude for block at 31.7 ± 3.0°N. Closure of Paleo-Tethys Ocean at longitude of Qiangtang block most likely in Late Triassic)

Song, P., L. Ding, Z. Li, P.C. Lippert & Y. Yue (2017)- An early bird from Gondwana: paleomagnetism of Lower Permian lavas from northern Qiangtang (Tibet) and the geography of the Paleo-Tethys. Earth Planetary Sci. Letters 475, p. 119-133.
(online at: https://www.sciencedirect.com/science/article/pii/S0012821X17304016)
(Paleomagnetic data from Lower Permian Kaixinling Gp lavas on N Qiangtang block suggest paleolatitude of 21.9 ±4.7 °S at ~297 Ma. Corroborates earlier hypothesis that N Qiangtang block rifted away from Gondwana before Permian, and accreted to Tarim- N China continent by Norian time. Total N-ward drift ~7000km over ~100 My (~7 cm/yr). N Qiangtang no Laurasian affinity. C Qiangtang metamorphic belt possible intra-Qiangtang suture that developed at S latitudes outboard of Gondwanan margin)

Srivastava, A.K., V.A. Krassilov & D. Agnihotri (2010)- Peltasperms in the Permian of India and their bearing on Gondwanaland reconstruction and climatic interpretation. Palaeogeogr. Palaeoclim. Palaeoecology 310, p. 393-399.
(First find of peltasperms in Permian of Gondwana, in Lower Permian Barakar Fm of Satpura Basin, C India, where they co-occur with diverse glossopterids. These are dominant group of N American- European arboreal vegetation and suggest floristic exchanges between Laurasia and Gondwana. Satpura occurrence assigns Indian subcontinent to low-latitude zone of mixed Laurasian/Gondwanan floristic assemblages)

Teasdale, J. & J. Bon (2017)- A new plate model for South East Asia aimed at understanding basin evolution. In: SEAPEX Exploration Conference 2017, Singapore, Session 7, 15p. *(Abstract + Presentation)*
(Eight SE Asia plate reconstruction models from 55- 0 Ma. SW Borneo and Peninsular Malaysia part of same rigid Sundaland basement terrane. 'Rotational extrusion' of Sundaland caused clockwise rotation of Sundaland + Borneo in two phases in Late Eocene and Oligocene. Counter-clockwise rotation of Bird's Head. E Indonesian 'salami-slicer' extends NW to Borneo, where it accounts for M Miocene Sabah Orogeny. Etc.)

Tong-Dzuy, T., P. Janvier & P. Ta Hoa (1996)- Fish suggest continental connections between South China and Indochina blocks in Middle Devonian times. Geology 24, 6, p. 571-574.
(Yunnanolepiform antiarch (placoderm fish) from Givetian Dong Tho Fm, C Vietnam, on Indochina Block, well S of Song Ma suture. Previously known only from Lower Devonian of South China block. Massive sandstones of Dong Tho Fm may be southern extension of Do Son Sst of Hai Phong area, S China)

Twidale, C.R. (2005)- Granitic terrains. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 123-141.
(Basic review of granitic rocks, weathering and distribution in Southeast Asia)

Usuki, T., C.Y. Lan, K.L. Wang & H.Y. Chiu (2013)- Linking the Indochina block and Gondwana during the Early Paleozoic: evidence from U-Pb ages and Hf isotopes of detrital zircons. Tectonophysics 586, p. 145-159.
(Detrital zircons from river sediment in Truong Son Belt of Indochina block in N-C Vietnam with mainly Neoarchean (~2.5 Ga), Mesoproterozoic (1.7-1.4 Ga), Grenvillian (~0.95 Ga) and Pan-African (0.65–0.5 Ga)

ages. Similarity of age distribution and Hf isotope compositions of Indochina and those of Tethyan Himalaya, W Cathaysia, and Qiangtang suggests Indochina was outboard of Qiangtang and S of S China in Indian margin of Gondwana in E Paleozoic. Results consistent with paleontological correlations of E Gondwana margin)

Van der Meer, D.G., D.J.J. van Hinsbergen & W. Spakman (2018)- Atlas of the underworld: slab remnants in the mantle, their sinking history, and a new outlook on lower mantle viscosity. Tectonophysics 723, p. 309-448.
(online at: www.sciencedirect.com/science/article/pii/S0040195117304055)
(Global inventory of 94 subducted slabs in mantle, as identified from tomography. Including slabs from SE Asia: Arafura, Banda, Burma (formerly part of Sunda slab), Halmahera (15-0 Ma), Kalimantan (active from ~70- 20 Ma: interpreted by some as deeper part of Sunda slab)), Papua (base age 90-45 Ma, top age 26-20 Ma), Sangihe (base age 30-25 Ma; at shallow upper mantle levels separated into several slabs: Philippine Trench slab, Molucca Sea West slab, Sulu and Celebes Sea South slab) and Sunda slab (active since 50-45 Ma). (see also associated website: www.atlas-of-the-underworld.org/)

Von Hagke, C., M. Philippon, J.P. Avouac & M. Gurnis (2016)- Origin and time evolution of subduction polarity reversal from plate kinematics of Southeast Asia. Geology 44, 8, p. 659-662.
(online at: http://web.gps.caltech.edu/~avouac/publications/vonHagke-Geology-2016.pdf)
(Regional model of plate geometry and kinematics of SE Asia since Late Cretaceous and origin of subduction polarity reversal currently observed in Taiwan)

Wang, Q., J. Deng, C. Li, G. Li, L. Yu & L. Qiao (2016)- The boundary between the Simao and Yangtze blocks and their locations in Gondwana and Rodinia: Constraints from detrital and inherited zircons. Gondwana Research 26, p. 438-448.
(Simao (N Indochina) and Yangtze (S China) continental blocks amalgamated in Late Paleozoic- Triassic by closure of Paleotethys branch (Ailaoshan ocean). Detrital and inherited zircons suggest Laowangzhai-Mojiang suspect terrane belongs to Simao-Indochina block, so Paleotethys suture along Ailaoshan late-Devonian- E Carboniferous ophiolite belt. Precambrian detrital zircon ages suggest Yangtze block not part of Australia or India in Rodinia, while Simao-Indochina block derived from Indian Gondwana)

Wang, X., I. Metcalfe, P. Jian, L. He & C. Wang (2000)- The Jinshajiang suture zone: tectono-stratigraphic subdivision and revision of age. Science in China, ser. D, 43, 1, p. 10-22.
(Jinshajiang suture zone in W Yunnan- W Sichuan is remnants of backarc basin in E part of Paleo-Tethys. Basin started in Late Devonian, closed in E-M Triassic)

Wang, X.D., T. Sugiyama, K. Ueno, Y. Mizuno, Y. Li, W. Wang et al. (2000)- Carboniferous and Permian zoogeographical change of the Baoshan Block, SW China. Acta Palaeontologica Sinica 39, 4, p. 493-506.
(Carboniferous- Permian of Baoshan block three main sequences: (1) Lower Carboniferous carbonates (warm, diverse, and abundant 'Eurasian' faunas), (2) Lower Permian siliciclastics (cold, low diverse faunas; conodont Sweetognathus fauna at top; glacio-marine diamictites, Sakmarian- E Artinskian ;'peri-Gondwanan') (3)M Permian carbonates (warm water but low diverse fauna; 'marginal Cathaysian/Cimmerian'). Cimmerian blocks comparable in Carboniferous- E Permian. In M Permian E Cimmerian blocks (Sibumasu s.s, Baoshan, Tengchong) not far from palaeoequator, but further than W Cimmerian blocks (lack of Eopolydiexodina and Neoschwagerina fusulinids, corals Thomasiphyllum, Wentzellophyllumm)

Wang, Y., X. Qian, P.A. Cawood, H. Liu, Q. Feng, G. Zhao, Y. Zhang, H. He & P. Zhang (2018)- Closure of the East Paleotethyan Ocean and amalgamation of the Eastern Cimmerian and Southeast Asia continental fragments. Earth-Science Reviews, 36p. *(in press)*
(Review of geological features of Paleotethys suture zones, bounding continental fragments and magmatic, metamorphic and sedimentary records. Data from Changning-Menglian, Inthanon and Bentong-Raub suture zones argue for linkage with Longmu Co-Shuanghu suture zone in C Tibet and together constitute main E Paleotethys Ocean relict. E-ward subduction of ocean resulted in series of magmatic arc/ backarc basin/ continental fragments in SE Asia (from W to E: Lincang-Sukhothai-E Malaya arc, Jinghong-Nan-Sa Kaeo back-arc basin, Simao/ W Indochina fragment, Luang Prabang-Loei back-arc basin, S Indochina fragment, Wusu and Truong Son back-arc basins, N Indochina fragment, Jinshajiang-Ailaoshan-Song Ma branch/back-arc basin and

S China Block. Assembly of these fragments resulted in Triassic (Indosinian) metamorphism and related tectonothermal event. Switch from subduction of main E Paleotethyan Ocean to collision of Sibumasu with Simao/Indochina at ~ 237 Ma. Timing of collision events along Jinshajiang-Ailaoshan-Song Ma suture generally ~ 10 Ma older than along Changning-Menglian, Inthanon and Bentong-Raub suture zones)

Wu, J. & J. Suppe (2017)- Proto-South China Sea plate tectonics using subducted slab constraints from tomography. J. Earth Science (China), p. 1-15. *(in press)*
(online at: https://link.springer.com/article/10.1007/s12583-017-0813-x)
(Reconstruction of vanished Proto-South China Sea ocean from tomography imaging of subducted slab. Two slabs identified, now at depths of 750-900 km. Proto-South China Sea consumed by double-sided subduction: (1) 'N Proto-South China Sea' (now under N S China Sea- Philippines) subducted in Oligo-Miocene under Dangerous Grounds southward, expanding S China Sea by in-place 'self subduction' similar to W Mediterranean basins; (2) limited S-ward subduction of proto-S China Sea under Borneo before Oligocene (35 Ma), represented by 800-900 km deep 'S Proto-South China Sea' slab (now under S S China Sea- N Borneo))

Wu, J., J. Suppe, R. Lu & R. Kanda (2016)- Philippine Sea and East Asian plate tectonics since 52Ma constrained by new subducted slab reconstruction methods. J. Geophysical Research, Solid Earth, 121, 6, p. 4670-4741.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2016JB012923/epdf)
(Reconstructed Philippine Sea and E Asian plate tectonics since E Eocene from 28 slabs mapped from global tomography, with subducted area of ~25% of present-day global oceanic lithosphere. Slab constraints include subducted parts of existing Pacific, Indian and Philippine Sea oceans, plus subducted proto-S China Sea and newly discovered 8000 × 2500 km 'East Asian Sea' between Pacific and Indian Oceans at 52 Ma based on lower mantle flat slabs. Philippine Sea formed above Manus plume near Pacific- E Asian Sea plate boundary. Philippine Sea W-ward motion and post-40 Ma max. 80° CW rotation accompanied late Eocene-Oligocene collision with Caroline/Pacific plate. Philippine Sea moved N post-25 Ma over northern East Asian Sea, forming N Philippine Sea arc that collided with SW Japan-Ryukyu margin in Miocene (~20–14 Ma))

Xia, Y., X. Xu, Y. Niu & L. Liu (2017)- Neoproterozoic amalgamation between Yangtze and Cathaysia blocks: The magmatism in various tectonic settings and continent-arc-continent collision. Precambrian Research 309, p. 56-87.
(manuscript online at: http://dro.dur.ac.uk/21242/1/21242.pdf)
(Neoproterozoic amalgamation history of Yangtze and Cathaysia blocks, forming S China Block: (1) ~1000-860 Ma NW-ward intra-oceanic subduction and SE-ward ocean-continent subduction (with continental margin magmatism in Cathaysia Block); (2) ~860-825 Ma steepening subduction caused development of back-arc basin in intra-oceanic arc zone and slab rollback induced arc and back-arc magmatism in Cathaysia Block. NW-ward ocean-continent subduction formed continental margin magmatism in Yangtze Block; (3) ~825-805 Ma continent-arc-continent collision and final amalgamation between Yangtze and Cathaysia blocks (Jiangnan Orogen); (4) ~805-750 Ma collapse of Jiangnan Orogen and Nanhua rift basin formed)

Xu, C., H. Shi, C.G. Barnes & Z. Zhou (2016)-Tracing a late Mesozoic magmatic arc along the Southeast Asian margin from the granitoids drilled from the northern South China Sea. Int. Geology Review 58, p. 71-94.
(Granitoids drilled in N S China Sea two magmatic episodes: Late Jurassic (162-148 Ma) and E Cretaceous (137-102 Ma). Jurassic magmatism probably began in late M Jurassic, documented by inherited zircons. I-type granites, generated in continental arc environment. Arc granites of SCS, with accretionary wedge of Palawan terrane to SE and zone of lithospheric extension to N throughout SE China, define late Mesozoic SW-NE trench-arc-backarc setting for SE Asian continental margin , related to subduction of Paleo-Pacific slab beneath Asia)

Xu, C., L. Zhang, H. Shi, M.R. Brix, H. Huhma, L. Chen, M. Zhang & Z. Zhou (2017)- Tracing an Early Jurassic magmatic arc from South to East China Seas. Tectonics 36, 3, p. 466-492.
(E Jurassic granite and diorite in wells in NE S China Sea and SW East China Sea (198-187 Ma), probably part of arc-related granitoids,that, along with those from SE Taiwan, could define E Jurassic NE-SW trending Dongsha-Talun-Yandang magmatic arc zone along East Asian continental margin paired with Jurassic

accretionary complexes from SW Japan, E Taiwan to W Philippines. Arc-subduction complex associated with oblique subduction of Paleo-Pacific slab beneath Eurasia)

Xu, Y., P.A. Cawood, Y. Du, L. Hu, W. Yu, Y. Zhu & W. Li (2013)- Linking south China to northern Australia and India on the margin of Gondwana: Constraints from detrital zircon U-Pb and Hf isotopes in Cambrian strata. Tectonics 32, 6, p. 1547-1558.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/tect.20099/epdf)
(Cambrian sedimentary rocks in S part of S China Craton derived from source to S or SE, beyond current limits of craton. U-Pb ages and Hf isotope data on detrital zircons from Cambrian two age peaks at 1120 Ma and 960 Ma, with εHf(t) values similar to coeval detrital zircons from W Australia and Tethyan Himalaya zone, respectively. ~1120 Ma detrital zircons likely derived from Wilkes-Albany-Fraser belt (between SW Australia-Antarctica); ~960 Ma zircons possibly sourced from Rayner-Eastern Ghats belt (between India-Antarctica). Suggesting S China was at nexus between India, Antarctica, and Australia along N margin of E Gondwana)

Yan, Q.S. & X.F. Shi (2007)- Hainan mantle plume and the formation and evolution of the South China Sea. Geol. J. Chinese Universities 13, 2, p. 311-322.
(Seismic tomographic images suggest possible mantle plume beneath and around Hainan island (sub-vertical low-velocity column, extending from shallow depths to 660-km seismic discontinuity and continuously to depht of 1900 km. Large quantity of Cenozoic alkali basalts distributed in S China Sea and adjacent areas)

Yan, Q., X. Shi, I. Metcalfe, S. Liu, T. Xu, N. Kornkanitnan, T. Sirichaiseth, L. Yuan, Y. Zhang & H.Zhang (2018)- Hainan mantle plume produced late Cenozoic basaltic rocks in Thailand, Southeast Asia. Nature Scientific Reports 8, 2640, p. 1-14.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5805767/pdf/41598_2018_Article_20712.pdf)
(Intraplate volcanism started after 16 Ma, shortly after cessation of seafoor spreading in S China Sea, affecting large areas. Geochemistry of Late Miocene- Pleistocene basalts from Khorat Plateau and Sukhothai arc terrane in Thailand show Oceanic Island Basalt -like characteristics. Post-spreading intra-plate volcanism around S China Sea region probably induced by Hainan mantle plume)

Yang, J., P.A. Cawood & Y. Du (2015)- Voluminous silicic eruptions during late Permian Emeishan igneous province and link to climate cooling. Earth Planetary Sci. Letters 432, p.166-175.
(Case study for ~260 Ma Emeishan Large Igneous Province in S China, where silicic volcanic rocks are minor component of preserved rock due to extensive Late Permian erosion. Silicic volcanic rocks ~30% of volume of eroded Emeishan volcanics. Basalt-derived silicic eruptions released sulfur gases into higher atmosphere, contributing to climate cooling at Capitanian-Wuchiapingian transition at ~260 Ma)

Yang, J., P.A. Cawood, Y. Du, H. Huang & L. Hu (2014)- A sedimentary archive of tectonic switching from Emeishan plume to Indosinian orogenic sources in SW China. J. Geol. Soc., London, 171, 2, p. 269-280.
(U Permian- M Triassic sediments in Youjiang Basin, S China, record change from Late Permian within-plate mafic-dominated source to NW (zircons ages ~260 Ma; mainly from Emeishan Large Igneous Province), to E-M Triassic mixed magmatic arc-recycled orogenic source to W (subduction–collision rocks of Indosinian Orogeny) and E (recycled Precambrian- E Paleozoic rocks in S China hinterland))

Yu, C., X. Shi, X. Yang, J. Zhao, M. Chen & Q. Tang (2017)- Deep thermal structure of Southeast Asia constrained by S-velocity data. Marine Geophysical Research 38, 4, p. 341-355.
(Deep thermal structure of SE Asia, derived from empirical relation between S-velocity and T. Temperature at depth of 80 km in rifted and oceanic basins (Thailand Rift Basin, Gulf of Thailand, Andaman Sea and S China Sea) is ~200 °C higher than in plateaus (Khorat Plateau, Sumatra Island) and subduction zones (Philippine Trench). Surface heat flow in S China Sea mainly dominated by deep thermal state. Temperatures at 100-120 km depths more uniform. Estimated base of lithosphere corresponds to ~1400 °C isotherm; good correlation with tectonic setting.

Zahirovic, S., N. Flament, R.D. Muller, M. Seton & M. Gurnis (2016)- Large fluctuations of shallow seas in low-lying Southeast Asia driven by mantle flow. Geochem. Geophys. Geosystems 17, 9, p. 3589-3607.

(online at: http://ro.uow.edu.au/cgi/viewcontent.cgi?article=5216&context=smhpapers)
(On link between mantle flow and surface tectonics. SE Asia one of lowest lying continental regions in world, with half of continental area presently inundated by shallow sea. Widespread Late Cretaceous-Eocene regional unconformity in SE Asia likely driven by dynamic topography, i.e. several 100m of dynamic uplift and emergence of Sundaland between ~80-60 Ma due to slab breakoff after Late Cretaceous collision of Gondwana-derived terranes with Sundaland. Renewed subduction from ~60 Ma re-initiated dynamic subsidence of Sundaland, leading to submergence from ~40 Ma)

Zahirovic, S., K. Matthews, N. Flament, R. Muller, K. Hill, M. Seton & M. Gurnis (2016)- Tectonic evolution and deep mantle structure of the eastern Tethys since the latest Jurassic. Earth- Science Reviews 162, p. 293-337.
(Major review of plate tectonics of since 160 Ma. Rifting of 'Argoland' (E Java and W Sulawesi) in latest Jurassic from NW Australian shelf, likely colliding first with parts of Woyla intra-oceanic arc in mid-Cretaceous, and accreting to Borneo (Sundaland) core by ~80 Ma. Neo-Tethyan ridge likely consumed along intra-oceanic subduction zone S of Eurasia from ~105 Ma, leading to major change in motion of Indian Plate by ~100 Ma)

Zahirovic, S., K. Matthews, Ting Yang, N. Flament, D. Garrad, G. Brocard, J. Iwanec, K. Hill, M. Gurnis, R. Hassan, M. Seton & D. Muller (2018)- Tectonics and geodynamics of the eastern Tethys and northern Gondwana since the Jurassic. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, p. 1-6.
(Extended Abstract)
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2018abM1_1C)
(Evolution of E Neo-Tethys since latest Jurassic rifting along N Gondwana. New Guinea N-ward motion over subducted slabs (related to Sepik back-arc basin and Maramuni subduction system), resulted in long-term flooding of margin since ~20 Ma. Sundaland continental promontory dynamic uplift in latest Cretaceous-Eocene due to accretion of Woyla Arc at ~80 Ma, leading to slab breakoff and temporary interruption of subduction. Renewed subduction along Sunda margin resulted in renewed dynamic subsidence from ~30 Ma, amplified by regional basin rifting events. Sinking Sunda slab likely triggered mantle slab avalanche, resulting in contemporaneous basin inversion and dynamic subsidence from ~15 Ma)

Zhang, K.J. & J.X Cai (2009)- NE-SW-trending Hepuï Hetai dextral shear zone in southern China: penetration of the Yunkai Promontory of South China into Indochina. J. Structural Geol. 31, 7, p. 737-748.
(NE-SW-trending Hepu-Hetai shear zone extends for ~480 km along Guangdong-Guangxi provinces boundary in S China.Dextral ductile strike-slip deformation, with estimated displacement of >500 km. Inclusions in quartz within mylonite suggest that ductile shear deformation under medium T/P conditions of greenschist facies; 40Ar/39Ar muscovite ages of 213-195 Ma. Shear zone originated via penetration of Yunkai Promontory of South China into Indochina during Late Triassic)

Zhao, D. (2012)- Tomography and dynamics of Western-Pacific subduction zones. Monogr. Environ. Earth Planets 1, 1, p. 1-70.
(online at: www.terrapub.co.jp/onlinemonographs/meep/pdf/01/0101.pdf)

Zhao, T., Q. Feng, I. Metcalfe, L.A. Milan, G. Liu & Z. Zhang (2017)- Detrital zircon U-Pb-Hf isotopes and provenance of Late Neoproterozoic and Early Paleozoic sediments of the Simao and Baoshan blocks, SW China: Implications for Proto-Tethys and Paleo-Tethys evolution and Gondwana reconstruction. Gondwana Research 51, p. 193-208.
(Detrital zircons from Ordovician? Lancang Gp (separate Lancang Block?) and Mengtong and Mengdingjie Gps (Baoshan Block) with three age peaks: older Grenvillian (1200-1060 Ma), younger Grenvillian (~960 Ma) and Pan-African (650-500 Ma), with εHf(t) values similar to W Australia and N India. E Paleozoic Proto-Tethys represents narrow ocean basin separating 'Asian Hun superterrane' (N China, S China, Tarim, Indochina, N Qiangtang blocks) from N margin of Gondwana in Late Neoproterozoic- E Paleozoic. Proto-Tethys closed in Silurian at ~440–420 Ma when 'Asian Hun superterrane' collided with N Gondwana margin. Lancang Block separated from Baoshan Block in E Devonian when Paleo-Tethys opened as back-arc basin)

Zhao, T., X. Qin & Q. Feng (2015)- Zircon U-Pb-Hf isotopes and whole-rock geochemistry of the Late Triassic rhyolites from Lampang Zone, northern Thailand: implications for the closure of Paleo-Tethys. In: Proc. 4th Int. Symposium Int. Geosciences Program (IGCP) Project 589, Bangkok 2015, p. 102-106. *(Extended Abstract)* *(online at: http://igcp589.cags.ac.cn/4th%20Symposium/Abstract%20volume.pdf)*
(E Norian (225.1±1.2 Ma) ages of post-collisional rhyolites in Lampang area minimum age of final closure of E Paleo-Tethys between Sibumasu and Indochina blocks. Older age from inherited zircons (242±1.9 Ma) resembles arc volcanic rocks from Doi Luang belt in same area. High-K calc-alkaline Lampang rhyolites formed in post-collisional extensional environment, controlled mainly by lithospheric delamination or slab breakoff. Youngest pelagic sediments in Changning-Menglian and Inthanon Suture Zones M Triassic (Triassocampe deweveri radiolarian assemblage), suggesting Paleo-Tethys ocean not yet closed in M Triassic)

I.3. Volcanism, Volcanic rocks geochemistry (52)

Abdurrachman, M., S. Widiyantoro, B. Priadi & T. Ismail (2017)- Geochemistry and seismic tomogram beneath Krakatoa volcano, Sunda Strait, Indonesia. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 3p.
(S-wave tomographic image under Krakatoa shows subducted slab has been intruded by hot mantle material, suggesting possible tearing of subducting plate)

Abdurrachman, M., S. Widiyantoro, B. Priadi & T. Ismail (2018)-Geochemistry and structure of Krakatoa volcano in the Sunda Strait, Indonesia. Geosciences, 8, 4, 111, p. 1-10.
(online at: www.mdpi.com/2076-3263/8/4/111)
(Tomographic image and geochemical data of Krakatoa area lavas suggests subducted slab intruded by hot material of mantle upwelling. Partial melting of mantle wedge and mantle upwelling in upper mantle may be caused by thinning of subducted slab under Krakatoa Volcano)

Agangi, A. & S.M.Reddy (2016)- Open-system behaviour of magmatic fluid phase and transport of copper in arc magmas at Krakatau and Batur volcanoes, Indonesia. J. Volcanology Geothermal Res. 327, p. 669-686.

Bahar, I. & M. Girod (1983)- Controle structural du volcanisme indonesien (Sumatra, Java-Bali); application et critique de la method de Nakamura. Bull. Soc. Geol. France (7), 25, 4, p. 609-614.
('Structural control on Indonesian volcanism (Sumatra, Java-Bali); application and critique of the Nakamura method')

Bani, P., G. Tamburello, E.F. Rose-Koga, M. Liuzzo, A. Aiuppa, N. Cluzel, I. Amat, D.K. Syahbana, H. Gunawan & M. Bitetto (2018)- Dukono, the predominant source of volcanic degassing in Indonesia, sustained by a depleted Indian-MORB. Bull. Volcanology 80, 5, p. 1-14.
(Little known Dukono volcano on N Halmahera island regularly erupting since 1933. Gas emissions show huge magmatic volatile contribution into atmosphere, with annual output of ~290 kt SO2, 5000 kt H2O, 88 kt CO2, 5 kt H2S and 7 kt H2 (in top 10 volcanic SO2 sources on Earth). Degassing sustained by depleted Indian-MORB mantle source, currently undergoing lateral pressure from steepening of subducted slab, downward force from Philippine Sea plate and W-ward motion of continental fragment along Sorong fault)

Borisova, A.Y., A.A. Gurenko, C. Martel, K. Kouzmanov & S. Sumarti (2016)- Oxygen isotope heterogeneity of arc magma recorded in plagioclase from the 2010 Merapi eruption (Central Java, Indonesia). Geochimica Cosmochimica Acta 190, p. 13-34.

Bronto, S. & Surono Martosuwito (eds.) (2014)- Indonesian arc magmatism- a collection of papers by Professor Udi Hartono. Center for Geological Survey (CGS), Geological Agency, Bandung, p. 1-623.
(Reprint collection of 39 papers, originally published between 1987-2011)

Brouwer, H.A. (1916)- Het vulkaaneiland Roeang (Sangi eilanden) na de eruptie van 1914. Tijdschrift Kon. Nederlandsch Aardrijkskundig Gen. 33, p. 89-94.
('The volcanic island Ruang (Sangi Islands) after the eruption of 1914')

Brouwer, H.A. (1921)- Het vulkaaneiland Roeang. Jaarboek Mijnwezen Nederlandsch Oost-Indie 49 (1920), Verhandelingen 2, p. 6-30.
('The volcano island Raung'. Active volcano in Sangi islands group)

Budd, D.A., V.R. Troll, F.M. Deegan, E.M. Jolis, V.C. Smith, M.J. Whitehouse, C. Harris, C. Freda, D.R. Hilton, S.A. Halldorsson & I.N. Bindeman (2017)- Magma reservoir dynamics at Toba caldera, Indonesia, recorded by oxygen isotope zoning in quartz. Nature Scientific Reports 7, 40624, p. 1-11.
(online at: https://www.nature.com/articles/srep40624.pdf)

(Quartz crystals from 75ka Toba tuffs rel. high δ18O values (up to 10.2‰), due to magma residence within and assimilation of local granite basement. Decrease in δ18O values in outer growth zones suggests assimilation of altered roof material and may represente eruption trigger in large Toba-style magmatic systems)

Carter, N.L., C.B. Officer, C.A. Chesner & W.I. Rose (1986)- Dynamic deformation of volcanic ejecta from the Toba caldera: possible relevance to Cretaceous/Tertiary boundary phenomena. Geology 14, 5, p. 380-383.
(Plagioclase and biotite phenocrysts in ignimbrites erupted from Toba caldera show microstructures and textures indicative of shock stress levels >10 GPa)

Cooke, R.J.S., J.T. Baldwin & T.J. Sprod (1976)- Recent volcanoes and mineralization in Papua New Guinea. 25th Int. Geological Congress, Sydney, Excursion Guide 53AC, p. 1-32.

De Silva, S.L., A.E. Mucek, P.M. Gregg & I. Pratomo (2015)- Resurgent Toba- field, chronologic, and model constraints on time scales and mechanisms of resurgence at large calderas. Frontiers Earth Sci. 3, 25, p. 1-17.
(online at: http://journal.frontiersin.org/article/10.3389/feart.2015.00025/full)
(Samosir Island in Lake Toba caldera was submerged below lake level (~900m above s.l.) at 33 ka. Since then uplifted 700m as tilted block dipping to W. 14C ages and elevations of sediment reveal minimum uplift rates of ~4.9 cm/yr from ~33.7-22.5 ka, but diminished to ~0.7 cm/yr after 22.5 ka)

Faber, F.J. (1964)- Modderkogels, mergelconcreties of askogels van Krakatau. Geologie en Mijnbouw 43, 11, p. 467-475.
('Mudballs, marl concretions or ash bullets from Krakatoa'. Example of spherical mud balls or 'ash-balls' up to 7 cm in diameter. Origin somewhat unclear)

Fontijn, K., F. Costa, I. Sutawidjaja, C.G. Newhall & J.S. Herrin (2015)- A 5000-year record of multiple highly explosive mafic eruptions from Gunung Agung (Bali, Indonesia); implications for eruption frequency and volcanic hazards. Bull. Volcanology 77, 59, p. 1-15.

Gertisser, R. & S. Self (2015)- The great 1815 eruption of Tambora and future risks from large-scale volcanism. Geology Today 31, 4, p. 132-136

Guillet, S., C. Corona, M. Stoffel, M. Khodri, F. Lavigne, P. Ortega, N. Eckert, P. D. Sielenou, V. Daux et al. (2017)- Climate response to the Samalas volcanic eruption in 1257 revealed by proxy records. Nature Geoscience 10, p. 123-128.
(Eruption of Samalas volcano on Lombok in 1257 with sulfur in ice cores twice volume of 1815 Tambora eruption. >40 km3 of dense magma expelled; eruption column up to 43 km altitude. Years 1258 and 1259 some of coldest N Hemisphere summers of past millennium. Eruption aggravated existing famine crises)

Gunawan, H., Surono, A. Budianto, Kristianto, O. Prambada, W. McCausland, J. Pallister & M. Iguchi (2017)- Overview of the eruptions of Sinabung eruption, 2010 and 2013-present and details of the 2013 phreatomagmatic phase. J. Volcanology Geothermal Res., p. *(in press)*
(Small phreatic eruption of Sinabung Volcano, N Sumatra, in August 2010 marked first eruption in last ~1200 years. New eruption began on 15 September 2013 and continues to present. Ongoing eruption 5 major phases)

Harijoko, A., N.A.S. Mariska & F. Anggara (2018)- Estimated emplacement temperatures for a pyroclastic deposits from the Sundoro volcano, Indonesia, using Charcoal Reflectance analyses. Indonesian J. Geoscience 5, 1, p. 1-11.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/386/247)
(Maximum emplacement temperature of pyroclastic flows based on charcoal reflectance is 487°C)

Hasibuan, R.F., T. Ohba, M. Abdurrachman & T. Hoshide (2017)- Magmas characteristics of Rajabasa volcanic complex inferred by petrological approach. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.

(Rajabasa dormant Quaternary volcano at S tip of Sumatra. Volcanics mainly basaltic andesite, with K-Ar ages of volcanics 0.31-0.12 Ma (Pleistocene). Older volcanics SE of Rajabasa at nearby Tangkil (4.33 Ma; Pliocene). Two distinct type of magmas in Tangkil, calc-alkaline dacite and tholeiitic basalt)

Haslam, M. (2013)- Climate effects of the 74 ka Toba super-eruption: multiple interpretive errors in óA high-precision 40Ar/39Ar age for the Young Toba Tuff and dating of ultra-distal tephraô by D. Mark, et al.. Quaternary Geochronology 18, p. 173-175.
(Critique of Mark et al 2013 paper)

Isnawan, D. & S. Bronto (1997)- Penentuan sumber erupsi batuan gunungapi Tersier dan implikasinya terhadap bahan tambang. Proc. 26th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, p. 226-236.
('Determination of source of eruption of Tertiary volcanic rocks and their implications for minerals')

Kuenen, P.H. (1945)- Volcanic fissures, with examples from the East Indies. Geologie en Mijnbouw, N.S., 7, 3-4, p. 17-23.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0S3ZmOTNXYmR6Qk0/view)
(Review of volcanic fissures and volcanic lines, with examples of Halmahera, E Java, etc.)

Kurnio, H., S. Lubis & H.C. Widi (2015)- Submarine volcano characteristics in Sabang waters. Bull. Marine Geol. 30, 2, p. 85-96.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/78/79)
(Weh Island with Sabang City at NW tip of Sumatra with volcanic cone morphology and with fumaroles, on surrounding seafloor and coastal area vents. Fumarole vents associated with common rare earth elements (REE). Co-existence between active Sumatra fault of current volcanism produce hydrothermal mineralization)

Kurnio, H., I. Syafri, A. Sudradjat & M.F. Rosana (2016)- Sabang submarine volcano Aceh, Indonesia: review of some trace and Rare Earth Elements abundances produced by seafloor fumarole activities. Indonesian J. Geoscience 3, 3, p. 173-183.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/247/224)
(Rare earth elements at fumaroles surrounding submarine craters off Sabang island)

Kurnio, H. & E. Usman (2016)- Rare Earth Elements vapor transport by fumaroles in the post caldera complex of Weh Island submarine volcano, Aceh Province, Northern Sumatra. Bull. Marine Geol. 31, 2, p. 99-108.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/317/278)
(Fumaroles and solfataras are REE vapor transport agents in Weh Island submarine volcano, Aceh. Central part of Weh submarine volcano most active REE deposition, where normal faults and N-S grabens acted as channel for hydrothermal fluids reaching seafloor surface)

Liu, Z., C. Colin & A. Trentesaux (2006)- Major element geochemistry of glass shards and minerals of the Youngest Toba Tephra in the southwestern South China Sea. J. Asian Earth Sci. 27, p. 99-107.
(4cm thick ash layer in Core MD01-2393 from SW S China Sea at Marine Isotope Stage 4-5 transition at ~74 ka. Morphology and geochemistry of glass shards confirm origin from Youngest Toba eruption, N Sumatra)

Neumann van Padang, M. (1959)- Changes in the top of Mount Ruang (Indonesia). Geologie en Mijnbouw 21, 4, p. 113-118.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0QTJrWms0Rmd6cFk/view)
(Activity and changes in shape of Mt Ruang in S part of Sangihe Archipelago since 1808)

Pearce, N.J.G., J.A. Westgate, E. Gatti, J.N. Pattan, G. Parthiban & H. Achyuthan (2014)- Individual glass shard trace element analyses conýrm that all known Toba tephra reported from India is from the c. 75-ka Youngest Toba eruption. J. Quaternary Sci. 29, 8, p. 729-734.
(Glass shards from all Toba tephra samples from India thus far analysed, same multi-population composition as Young Toba Tuff and are products of ~75-ka Youngest Toba eruption. Composition different from Oldest Toba Tuff (OTT) in Layer D from ODP site 758 (~800 ka))

Rachmat, H. & I. Mujitahid (2003)- Gunungapi Nusa Tenggara Barat. Indon. Assoc. Geol. (IAGI), Spec. Publ. 1, p. 1-141.
('Volcanoes of West Nusa Tenggara')

Rohiman, Y., I G.B.E. Sucipta, M. Abdurrachman & S.R.A. Sugiono (2016)- Petrogenesis of Malabar Volcano, West Java, Indonesia. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 295-300.

Scher, S. (2012)- Fumarolic activity, acid-sulfate alteration and high sulfidation epithermal precious metal mineralization in the crater of Kawah Ijen Volcano (Java, Indonesia). M.Sc. Thesis McGill University, Montreal, p. 1-114.
(online at: digitool.library.mcgill.ca/dtl_publish/7/110439.html)

Scher, S., A.E. Williams-Jones & G. Williams-Jones (2013)- Fumarolic activity, acid-sulfate alteration, and high sulfidation epithermal precious metal mineralization in the crater of Kawah Ijen Volcano, Java, Indonesia. Economic Geology 108, 5, p. 1099-1118.
(Kawah Ijen crater in E Java ~1 km in diameter, and hosts one of world's largest hyperacidic lakes. With small actively degassing solfatara field, surrounded by much larger area of acid-sulfate alteration. Area exposed after phreatomagmatic eruption in 1817, which excavated crater to depth of 250m. Magmatic vapors caused (uneconomic) high sulfidation epithermal Cu-Au-Ag ore deposits at very shallow depth)

Schulz, H., K.C. Emeis, H. Erlenkeuser, U. von Rad & C. Rolf (2002)- The Toba volcanic event and interstadial/stadial climates at the marine isotopic stage 5 to 4 transition in the northern Indian Ocean. Quaternary Research 57, 1, p. 22-31.
(Toba volcanic event documented in marine sediment cores from NE Arabian Sea. Distinct concentration spikes and ash layers of rhyolithic volcanic shards near marine isotope stage 5-4 boundary with chemical composition of 'Youngest Toba Tuff'. Toba event between two warm periods lasting a few millennia. Toba had only minor impact on evolution of low-latitude monsoonal climate on centennial to millennial time scales)

Self, S., R. Gertisser, T. Thordarson, M.R. Rampino & J.A. Wolff (2004)- Magma volume, volatile emissions, and stratospheric aerosols from the 1815 eruption of Tambora. Geophysical Research Letters 31, L20608, p. 1-4.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2004GL020925/epdf)
(New estimates for mass of magma and aerosol generated by Tambora in 1815: 30 -33 km3 magma, 53-58 Tg SO2, and 93-118 Tg sulfate aerosols. Aerosol cloud distributed globally, but more in S than in N Hemisphere)

Sutawidjaja, I.S. (1990)- Evolusi kaldera Batur, Bali. Proc. 19th Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 2, p. 165-194.
('Evolution of the Batur caldera, Bali')

Van Bemmelen, R.W. (1949)- Volcanism. Chapter III in Van Bemmelen (1949)- The geology of Indonesia, vol. 1A, The Hague, p. 188-256.
(Review of active volcanism (177 volcanoes), products volcanic eruptions, composition of volcanic products and distribution and composition of associated igneous rocks)

Verbeek, R.D.M. (1886)- Krakatau. Landsdrukkerij, Batavia, Indonesia, p. 1-567. *(French edition)*
(With two Atlas volumes. Text volume online at: https://archive.org/details/krakatau00verbgoog)
(Classic account of the 1883 cataclysmic eruption and its effects (incl. human casualties, tuff and tsunami deposits, etc))

Vidal, C.M., N. Metrich, J.C. Komorowski, I. Pratomo, A. Michel, N. Kartadinata, V. Robert & F. Lavigne (2016)- The 1257 Samalas eruption (Lombok, Indonesia): the single greatest stratospheric gas release of the Common Era. Nature Scientific Reports 6, 34868, p. 1-13.

(online at: https://www.nature.com/articles/srep34868.pdf)
(Great 1257 eruption of Samalas (Lombok) released enough sulfur and halogen gases into stratosphere to produce reported global cooling during second half of 13th century)

Von Rad, U., K.P. Burgath, M. Pervaz & H. Schulz (2002)- Discovery of the Toba Ash (c. 70 ka) in a high-resolution core recovering millennial monsoonal variability off Pakistan. In: P.D. Clift et al. (eds.) The tectonic and climatic evolution of the Arabian Sea region, Geol. Soc., London, Spec. Publ. 195, p. 445-461.
(Toba Ash layer in NE Arabian Sea SW of Pakistan near base of 20.2m piston core. Also two younger ash layers, presumably from Indonesian volcanoes. Toba event (70 ±4 ka BP) well documented in Arabian Sea and Bay of Bengal records at end of Oxygen Isotope Stage 20. With map of known Toba ash distribution)

Wasmund, E. (1934)- Vulkano-telmatischer Melanientuff am Caldera-See Danau Batur auf Bali (Insulinde). Archiv fur Hydrobiologie, Suppl.-Band 13, p. 292-315.
('Vulkano-telmatic melanien tuff at the Danau Batur caldera lake on Bali (Indonesia)'. Recent tuffs of Batur)

Westgate, J.A. P.A.R. Shane, N.J.G. Pearce, W.T. Perkins, R. Korisettar, C.A. Chesner et al. (1998)- All Toba tephra occurrences across Peninsular India belong to the 75,000 yr B.P. eruption. Quaternary Research 50, 1, p. 107-112.

Wetzel, A. (2009)- The preservation potential of ash layers in the deep-sea: the example of the 1991-Pinatubo ash in the South China Sea. Sedimentology 56, p. 1992-2009.
(After 1991eruption of Mount Pinatubo, Philippines, volcanic ash transported W to S China Sea in atmospheric plume, formed up to 10cm thick graded layer over >400,000 km2. Immediately after deposition surviving deep-burrowing animals re-opened connection to sea floor. Later, small meiofauna and macrofauna recolonized sea floor, mixing newly deposited organic material with underlying ash. Ash deposits <1mm thick not often observed as continuous layer when cored 6 years after eruption; ash ~2mm thick now patchily bioturbated. Areas affected by deposition of turbidites ash layer often preserved due to rapid burial)

Whelley, P.L., C.G. Newhall & K.E. Bradley (2015)- The frequency of explosive volcanic eruptions in Southeast Asia. Bull. Volcanology 77, 1, p. 1-11.
(online at: http://link.springer.com/article/10.1007/s00445-014-0893-8?view=classic)
(~733 active and potentially active volcanoes in SE Asia region, of which 70 have erupted in last 100 years)

Wichmann, C.E.A. (1910)- Uber den Vulkan Soputan in der Minahassa. Zeitschrift Deutschen Geol. Gesellschaft, Monatsberichte 62, 8, p. 589-595.
('On the Soputan volcano in the Minahasa', NE Sulawesi. Critique of Ahlburg (1910) description of Soputan eruption history on date of last major eruption (1828 or 1838), etc.)

Wichmann, C.E.A. (1911)- Uber die Ausbruche des Soputan in der Minahassa. Zeitschrift Deutschen Geol. Gesellschaft, Monatsberichte 63, 4, p. 228-232.
(online at: https://www.biodiversitylibrary.org/item/182872#page/926/mode/1up)
('On the eruptions of the Soputan in the Minahasa', NE Sulawesi'. Continuation of unusually harsh critique of Ahlburg 1910 papers. Nothing new here)

Wille, M., O. Nebel, T. Pettke, P.Z. Vroon, S. Konig & R. Schoenberg (2018)- Molybdenum isotope variations in calc-alkaline lavas from the Banda arc, Indonesia: assessing the effect of crystal fractionation in creating isotopically heavy continental crust. Chemical Geology 485, p. 1-13.
(Large Mo isotope variability in Banda Arc convergent margin lavas)

Winchester, S. (2003)- Krakatoa: the day the world exploded, 27 August 1883. HarperCollins Publishers, New York, p. 1-416.
(Popular, but thorough account of the 1883 eruption of Krakatoa volcano in Sunda Strait that killed nearly 40,000 people)

Wirakusumah, A.D.& H. Rachmat (2017)- Impact of the 1815 Tambora eruption to global climate change. In: 2nd Int. Conf. Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conf. Series, Earth Environm. Science, 71, 012007, p. 1-9.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012007/pdf)
(April 1815 paroxysmal destructive eruption of Tambora formed caldera and emitted 60 to 80 megatons of SO2 to stratosphere. SO2 circled the world and oxidized to form H2SO4, an aerosol limiting sunlight to reach earth surface. 1816 was year without summer in Europe, epidemic diseases in Benggal, etc.)

Xia, L. & R. Clocchiatti (1986)- Magmatic inclusions in phenocrystals from andesitic lavas, Krakatau volcano, Indonesia. Chinese J. Geochemistry 5, 4, p. 331-346.

Zielinski, G.A., P.A. Mayewski, L.D. Meeker, S. Whitlow, M. Twickler & K. Taylor (1996)- Potential atmospheric impact of the Toba mega-eruption. Geophysical Research Letters 23, 8, p. 837-840.
(~6-year long period of volcanic sulfate recorded in Greenland GISP2 ice core at ~71.1 ± 5 ka may reflect Toba mega-eruption. Deposition of these aerosols at beginning of ~1000-year long stadial event, but not immediately before longer glacial period beginning ~67.5 ka. Toba aerosols may be responsible for enhanced cooling during initial 200 yrs of ~1000-year cooling event ('volcanic winter'))

I.4. Modern depositional environments, Oceanography, Indonesian Throughflow (96)

Aldrian, E. & R.D. Susanto (2003)- Identification of three dominant rainfall regions within Indonesia and their relationship to sea-surface temperature. Int. J. Climatology 23, p. 1435-1452.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/joc.950/epdf)
(Three rainfall regions in Indonesia, related to island topography and sea-surface Temperature variability: (A) S Indonesia (S Sumatera to Timor, S Kalimantan, Sulawesi and part of Irian Jaya); (B) NW Indonesia (N Sumatra to NW Kalimantan); (C) Maluku and N Sulawesi. All with strong annual and (except A) semi-annual variability. Region C strongest El Nino- Southern oscillation influence)

Amijaya, H. & Ngisomuddin (2007)- Textural characteristics of tsunamiite: study on recent tsunami deposit at Pangandaran coast, Ciamis and Parendog coast, Yogyakarta. Proc. Joint Conv. 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 1103-1109.
(Recent tsunamiites of Java S coast have erosional base, homogeneous m-f sand grain size and no fining-upward trend. Sedimentary structures parallel lamination in lower part and ripples in upper part)

Ashton, P.S. (2014)- On the forests of tropical Asia- lest the memory fade. Royal Botanic Gardens Kew and Arnold Arboretum, Harvard University, p. 1-670.

Ashton, P.S. (2017)- Patterns of variation among forests of tropical Asian mountains, with some explanatory hypotheses. Plant Ecology Diversity 10, 5-6, p. 361-377.
(online at: https://www.tandfonline.com/doi/abs/10.1080/17550874.2018.142902)
(Review of modern forests zonation in tropical Asia: lowland forests, lower montane forests, upper montane forests, subalpine thicket/ shrublands)

Atmadipoera, A., S.M. Horhoruw, M. Purba & D.Y. Nugroho (2016)- Variasi spasial dan temporal arlindo di Selat Makassar. J. Ilmu dan Teknologi Kelautan Tropis 8, 1, p. 299-320.
(online at: http://journal.ipb.ac.id/index.php/jurnalikt/article/view/13221/10223)
('Spatial and temporal variation of Indonesian Throughflow in the Makassar Strait'. On the main axis of southward jet of Indonesian Throughflow in Makassar Straits, mainly following western shelf slope)

Atmadipoera, A., R. Molcard, G. Madec, S. Wijffels, J. Sprintall, A. Koch-Larrouy, Indra Jaya & A. Supangat (2009)- Characteristics and variability of the Indonesian throughflow water at the outflow straits. Deep Sea Research I, 56, 11, p. 1942-1954.
(Revised structure and variability of Indonesian Throughflow Water in major outflow straits (Lombok, Ombai, Timor))

Atmadipoera, A. & P. Widyastuti (2014)- A numerical modeling study of upwelling mechanism in southern Makassar Strait. J. Ilmu dan Teknologi Kelautan Tropis 6, 2, p. 355-371.
(online at: http://journal.ipb.ac.id/index.php/jurnalikt/article/view/9012/7080)
(On upwelling events in S Makassar Strait during SE Monsoon period, associated with low sea surface temperature and high chlorophyll-a concentrations in seawater. Upwelling controlled by SE monsoon winds and enhanced by Indonesian Throughflow TF Makassar jet that creates large circular eddies flow due to complex topography in triangle area of S Makassar- E Java Sea- W Flores Sea)

Brune, S., A.Y. Babeyko, S. Ladage & S.V. Sobolev (2010)- Landslide tsunami hazard in the Indonesian Sunda Arc. Natural Hazards Earth System Sci. 10, p. 589-604.
(online at: https://www.nat-hazards-earth-syst-sci.net/10/589/2010/nhess-10-589-2010.pdf)
(Review of tsunamigenic events triggered by submarine landslides. Largest documented recent slides (SE of Sumba, etc.) have volume of 15-20 km3. Many large recent tsunamigenic landslides have been ultimately triggered by earthquakes)

Cappelli, E.L.G. (2015)- Late Pleistocene variability in Timor Sea hydrology: evidence from paleotemperature proxies. Doct. Thesis Kiel University, p. 1-194.

(online at: http://macau.uni-kiel.de/...)

Cappelli, E.L., G.A. Holbourn, W. Kuhnt & M. Regenberg (2016)- Changes in Timor Strait hydrology and thermocline structure during the past 130 ka. Palaeogeogr. Palaeoclim. Palaeoecology 462, p. 112-124.
(Data from core from 485m depth at S edge of Timor Trough suggest lower thermocline warming during globally cold periods (MIS 4-MIS 2), related to weaker and contracted thermocline ITF and advection of warm-salty Indian Ocean waters)

Chabangborn, A., K.K.A. Yamoah, S. Phantuwongraj & M. Choowon (2018)- Climate in Sundaland and Asian monsoon variability during the last deglaciation. Quaternary Int. 479, p. 141-147.

Christensen, B.A., W. Renema, J. Henderiks, D. de Vleeschouwer, J. Groeneveld, I.S. Castaneda, L. Reuning et al. (2017)- Indonesian Throughflow drove Australian climate from humid Pliocene to arid Pleistocene. Geophysical Research Letters 44, 13, p. 6914-6925.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2017GL072977/epdf)
(Late Miocene- M Pleistocene sedimentary proxy records (incl. IODP Site U1463) show NW Australia underwent abrupt transition from arid to humid climate conditions at 5.5 Ma, likely receiving year-round rainfall. After ~3.3 Ma climate shift to increasingly seasonal precipitation, back to arid interval after 2.4 Ma. Linked to progressive restriction of flow of warm surface currents from Pacific (Indonesian Throughflow))

Clift, P.D. & R.A. Plumb (2008)- The Asian monsoon: causes, history and effects. Cambridge University Press, p. 1-288.
(Asian monsoon large-scale seasonal reversal of normal atmospheric circulation pattern. Low-pressure systems develop in tropics due to rising hot air that cools and descends in subtropics (arid regions). In contrast, summer heating of Asian continent (mainly Tibetan Plateau) generates low-pressure cells and summer rains in S and E Asia. In winter reversed high-P system established, with dry, cold winds blowing out of Asia. Monsoon intensity varies in 21, 40 and 100 thousand year timescale, with periods of glacial advance and retreat: summer monsoons strong and winter monsoons weaker during warm, interglacial periods (reverse during glacial times)

Coleman, J.M., S.M. Gagliano & W.G. Smith (1970)- Sedimentation in a Malaysian high tide tropical delta. In: J.P. Morgan & R.H. Shaver (eds.) Deltaic sedimentation, modern and ancient. Soc. Econ. Min. Paleont. (SEPM), Spec. Publ. 15, p. 185-197.
(Study of sedimentation in Klang and Langat Rivers delta in Malacca Strait)

Consentius, W.U. (1974)- Die Kusten des Sudostlichen Asien. Ph.D. Thesis, Technische Universitat Berlin, p. 1-231.
('The coasts of SE Asia'. Geographic description of coastlines and processes in SE Asia)

Cresswell, G., A. Frisch, J. Peterson & D. Quadfasel (1992)- Circulation in the Timor Sea. J. Geophysical Research 98, C8, p. 14379-14389.
(Current measurements in Timor Strait suggest transport of about 7 Sv toward Indian Ocean, with about half of this in upper 350m)

Dawson, A.G., S. Shi, S. Dawson, T. Takahashi & N. Shuto (1996)- Coastal sedimentation associated with the June 2nd and 3rd, 1994 tsunami in Rajegwesi, Java. Quaternary Science Reviews 15, 8-9, p. 901-912.
(NE Java tsunami deposits)

De Deckker, P. (2016)- The Indo-Pacific Warm Pool: critical to world oceanography and world climate. Geoscience Letters (AOGS) 3, 20, p. 1-12.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-016-0054-3)
(Review of climatic significance of Indo-Pacific Warm Pool, a large area with permanent surface T >28 °C in SW Pacific/ Indonesian region ('heat and steam engine' of globe))

Dubois, N., D.W. Oppo, V.V. Galy, M. Mohtadi, S. van der Kaars, J.E. Tierney, Y. Rosenthal et al. (2014)- Indonesian vegetation response to changes in rainfall seasonality over the past 25,000 years. Nature Geoscience 7, p. 513-517.
(online at: http://www.whoi.edu/fileserver.do?id=186164&pt=2&p=17766)
(Climate proxy data 30 surface marine sediment samples from throughout Indo-Pacific warm pool. Sediment core from offshore NE Borneo show broadly similar vegetation during Last Glacial Maximum and Holocene, suggesting that, despite generally drier glacial conditions, no pronounced dry season. Core off Sumba indicates enhanced dry season aridity and water stress during most recent glaciation)

Fan, W., Z. Jian, Z. Chu, H. Dang, Y. Wang, F. Bassinot, X. Han & Y. Bian (2018)- Variability of the Indonesian Throughflow in the Makassar Strait over the last 30 ka. Nature Scientific Reports 8, 5678, p. 1-8.
(online at: https://www.nature.com/articles/s41598-018-24055-1.pdf)
(Thermocline T and salinity gradient across Makassar Strait increased during the last glacial period relative to Holocene and was significantly larger during 13.4~19 ka BP and 24.2~27 ka BP)

Feng, M., N. Zhang, Q. Liu & S. Wijffels (2018)- The Indonesian throughflow, its variability and centennial change. Geoscience Letters 5, 3, p. 1-10.
(online at: https://link.springer.com/content/pdf/10.1186%2Fs40562-018-0102-2.pdf)

Galey, M.L., A. van der Ent, M.C.M. Iqbal & N. Rajakaruna (2017)- Ultramafic geoecology of South and Southeast Asia. Botanical Studies 58,18, p. 1-28.
(online at: https://link.springer.com/content/pdf/10.1186%2Fs40529-017-0167-9.pdf)
(Globally, ultramafic outcrops known for floras with high levels of endemism, including plants adapted to nickel or manganese hyperaccumulation. Soils derived from ultramafic regoliths generally nutrient-deficient, with major cation imbalances and high concentrations of potentially toxic trace elements, especially nickel. SE Asian region large surface occurrences of ultramafic regoliths, but geoecology still poorly studied)

Gathorne-Hardy, F.J., Syaukani, R.G. Davies, P. Eggleton & D.T. Jones (2002)- Quaternary rainforest refugia in south-east Asia: using termites (Isoptera) as indicators. Biological J. Linnean Soc. 75, p. 453-466.
(online at: https://academic.oup.com/biolinnean/article/75/4/453/2639628)
(In SE Asia, during Quaternary glaciations increased seasonality and sea level drops of ~120m caused fragmentation of rainforest. During Last Glacial Maximum, most of Thailand, Peninsula Malaysia, W and S Borneo, E and S Sumatra, and Java probably covered by savannah. Rainforest refugia probably present in N and E Borneo, N and W Sumatra and Mentawai islands.)

Gordon, A.L., S. Ma, D.B. Olson, P. Hacker, A. Ffield, L.D. Talley, D. Wilson & M. Baring (1997)- Advection and diffusion of Indonesian throughflow water within the Indian Ocean South Equatorial Current. Geophysical Research Letters 24, 21, p. 2573-2576.
(Warm, low salinity Pacific water flows through Indonesian Seas into E Indian Ocean, spreading within S Equatorial Current. Low salinity throughflow trace, centered along 12°S, stretches across Indian Ocean, separating monsoon-dominated regime of N Indian Ocean from subtropical stratification to S)

Gordon, A.L., R.D. Susanto, A. Ffield, B.A. Huber, W. Pranowo & S. Wirasantosa (2008)- Makassar Strait throughflow, 2004 to 2006. Geophysical Research Letters 35, L24605, p. 1-5.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2008GL036372)

Hanebuth, T.J.J., U. Proske, Y. Saito, V. Nguyen & K. Thi (2012)- Early growth stage of a large delta-transformation from estuarine-platform to deltaic-progradational conditions (the northeastern Mekong River Delta, Vietnam). Sedimentary Geology 261-262, p. 108-119.
(Mekong Delta early delta growth during transgression-related inundation between 8 ka BP (maximum flooding) and 5.7 ka BP (sea-level highstand), characterized by tide-and marine-influenced nearshore conditions with extensive mangrove and tidal-flat deposits aggrading on wide abrasion platform. Onset of regression/ progradation at ~4.8 ka)

Harris, P.T., M.G. Hughes, E.K. Baker, R.W. Dalrymple & J.B. Keene (2004)- Sediment transport in distributary channels and its export to the pro-deltaic environment in a tidally dominated delta: Fly River, Papua New Guinea. Continental Shelf Research 24, 19, p. 2431-2454.

Hendrizan, M., W. Kuhnt & A. Holbourn (2017)- Variability of Indonesian Throughflow and Borneo Runoff During the Last 14 kyr. Paleoceanography 32, 10, p. 1054-1069.
(Reconstruction of hydrological changes in Makassar Strait over last 14 kyr from Core SO217-18517 off Mahakam Delta (698 m water depth). Sea surface T based on Mg/Ca of Globigerinoides ruber, etc. provide evidence for increased precipitation during Bølling-Allerød (BA) and E Holocene, and for warmer/ more saline surface waters and decrease in Indonesian Throughflow during Younger Dryas (YD). Changes in Makassar Strait surface hydrology reflect S-ward displacement of Intertropical Convergence Zone)

Hope, G.S. (2005)- The Quaternary in Southeast Asia. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 24-37.

Hope, G.S. (2015)- Peat in the mountains of New Guinea. Mires and Peat 15, 13, p. 1-21.
(online at: http://mires-and-peat.net/media/map15/map_15_13.pdf)
(Peatlands common in montane areas above 1000m in New Guinea and extensive above 3000m. Montane mires up to 4-8m deep and up to 30,000 years in age. Above 3000m peat soils form under blanket bog on slopes as well as on valley floors. Typical peat depths 0.5-1 m on slopes, but valley floors up to 10m of peat. Peats record vegetation shifts at 28, 17-14 and 9 ka and variable history of human disturbance from 14 ka)

Iwatani, H., M. Yasuhara, Y. Rosenthal & B.K. Linsley (2018)- Intermediate-water dynamics and ocean ventilation effects on the Indonesian Throughflow during the past 15,000 years: ostracod evidence. Geology 46, 6, p. 567-570.
(Ostracods in core from central part of Makassar Strait suggest warm water/ low oxygen water fauna and species diversity rapidly increased at ~12 ka, reaching maxima during Younger Dryas. Interpreted as response to stagnation of intermediate water due to decline in Inonesian Throughflow intensity. After ~7 ka, ostracod faunal composition changed to deeper, colder and high oxygen fauna, responding to deglacial E Holocene sea-level rise. Etc.)

James, N.P., L.B. Collins, Y. Bone & P. Hallock (1999)- Rottnest shelf to Ningaloo reef: coolwater to warm-water carbonate transition on the continental shelf of Western Australia. J. Sedimentary Res. 69, p. 1297-1321.
(W continental margin from Cape Naturaliste to NE Cape 1200km long and with carbonate deposition throughout. Temperate (cool) water in S to tropical in N, influenced by Leeuwin current)

Kamaludin B. & B.Y. Azmi (1997)- Interstadial records of the last glacial period at Pantai Remis, Malaysia. J. Quaternary Science 12, 5, p. 419-434.
(Two eustatic high sea stands during last glacial period recognised at Pantai Remis, both lower than present-day sea-level: (1) -14.6m , synchronous with Oyxgen Isotope Stage 5a ; (2) -4.3 m , dated as ~54ka. Palynology data show interstadial coastal Pandanus and mangrove swamps, succeeded by mixed freshwater swamp forests of Campnosperma- Calophyllum assemblage, followed by drier mixed swamp forest)

Kamikuri, S. & T.C. Moore (2017)- Reconstruction of oceanic circulation patterns in the tropical Pacific across the Early/Middle Miocene boundary as inferred from radiolarian assemblages. Palaeogeogr. Palaeoclim. Palaeoecology 487, p. 136-148.
(Reconstruction of changes in tropical Pacific oceanic circulation patterns across E-M Miocene boundary based on radiolarian assemblages at IODP Site U1335 in E tropical Pacific. Upwelling taxa increased during four intervals between 18.4-13.4 Ma. Sea surface T relatively high from 16.8-16.0 Ma and gradually decreased from 16.0-14.6 Ma and thereafter to 12.7 Ma. Starting around 17 Ma radiolarian assemblages dominated by different taxa in E and W tropical Pacific, indicating deeper thermocline in W. Increasing difference between E and W since latest E Miocene tied to closure of Indo-Pacific seaway and development of W Pacific warm pool along with development of strong Equatorial Undercurrent)

Kershaw, A.P., D. Penny, S. van der Kaars, G. Anshari & A. Thamotherampillai (2001)- Vegetation and climate in lowland southeast Asia at the Last Glacial Maximum. In: I. Metcalfe et al. (eds.) Faunal and floral migration and evolution in SE Asia-Australasia. Balkema, Lisse, p. 227-236.
(Pollen records from SE Asia suggest that during Lst Glacial Maximum (~18 ka) precipitation was probably lower by ~30-50% than today, and temperature was reduced by as much as 6-7°. Rainforest was replaced by grassland in some areas. Montane forest elements descended to low altitudes. Exposed continental shelves covered largely by rainforest in wetter areas, by grassland and open woodlands in drier areas)

Kershaw, A.P., S. van der Kaars & J.R. Flenley (2011)- The Quaternary history of Far Eastern rainforests. In: M.B. Bush et al. (eds.) Tropical rainforest responses to climatic change, 2nd Ed., Springer-Praxis, Chapter 4, p. 85-123.

Khider, D. (2011)- Paleoceanography of the Indonesian Seas over the past 25,000 years. Ph.D. Thesis University of Southern California, p. 1-233.

Konecky, B., J. Russell & S. Bijaksana (2016)- Glacial aridity in central Indonesia coeval with intensified monsoon circulation. Earth Planetary Sci. Letters 437, p. 15-24.
(Last Glacial Maximum was cool and dry over Indo-Pacific Warm Pool region. Pervasive aridity and reduced rainfall coincided with apparent increase in circulation intensity in IPWP)

Korus, J.T. & C.R. Fielding (2015)- Asymmetry in Holocene river deltas: patterns, controls, and stratigraphic effects. Earth-Science Reviews 150, p. 219-242.
(Review of sediment distribution patterns in 27 deltas worldwide, incl. Mahakam)

Li, D., T.L. Chiang, S.J. Kao, Y.C. Hsin, L.W. Zheng, J.Y. Terence Yang, S.C. Hsu, C.R. Wu & M. Dai (2017)- Circulation and oxygenation of the glacial South China Sea. J. Asian Earth Sci. 138, p. 387-398.
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Li, Z., X. Shi, M.T. Chen, H. Wang, S. Liu, J. Xu, H. Long, R.A. Troa, R. Zuraida & E. Triarso (2016)- Late Quaternary fingerprints of precession and sea level variation over the past 35 kyr as revealed by sea surface temperature and upwelling records from the Indian Ocean near southernmost Sumatra. Quaternary Int. 425, p. 282-291.
(Paleoclimate reconstructions from core SO184-10043, offshore S Sumatra, in 2171m water depth)

Linsley, B.K., Y. Rosenthal & D.W. Oppo (2010)- Holocene evolution of the Indonesian Throughflow and the western Pacific warm pool. Nature Geoscience 3, 8, p. 578ï 583.
(online at: https://marine.rutgers.edu/pubs/private/Holocene%20WPWP-ITF_N.Geo2010_w_SOM.pdf)
(Sediment cores from across the Indonesian Throughflow area suggest that from ~10,000 to 7000 years ago, (Holocene Climate Optimum) sea surface T in western W Pacific warm pool ~0.5 °C higher than during pre-industrial times. About 9500 years ago, when South China and Indonesian seas were connected by rising sea level, surface waters in Makassar Strait became relatively fresher)

Liu, J.P., D.J. DeMaster, T.T. Nguyen, Y. Saito, V.L. Nguyen, T.K.O. Ta & X. Li (2017)- Stratigraphic formation of the Mekong River Delta and its recent shoreline changes. In: Sedimentation and survival of the Mekong Delta, Oceanography 30, 3, p. 72-83.
(online at: https://tos.org/oceanography/assets/docs/30-3_liu.pdf)
(Mekong River discharges into S China Sea and formed third largest delta plain in world (~50,000 km2; after Amazon and Ganges-Brahmaputra). Subaerial delta prograded ~220 km SE-ward in last 7500 years, showing 15m thick sigmoidal clinoforms immediately off distributaries. Mekong-derived sediment extends ~300 km along shelf to SW. From 1973- 2005 seaward shoreline growth decreased gradually, due to construction of dams, sand mining, delta subsidence, increasing storms and sea level rise)

Luo, C., G. Lin, M. Chen, R. Xiang, L. Zhang, . Liu, A. Pan, S. Yang & M. Yang (2016)- Characteristics of pollen in surface sediments from the southern South China Sea and its paleoclimatic significance. Palaeogeogr. Palaeoclim. Palaeoecology 461, p. 12-28.
(Pollen-spores from 62 seafloor sediments of southern Sh China Sea dominated by trilete spores (from ferns). Most pollen and spores on Kalimantan Island coast from herbaceous plants and trees, with few trilete spores)

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(Simulated total Indonesian Throughflow (-13.4 Sv) is similar to observational estimate (-15.0 Sv) and distributed among three outflow passages (Lombok Strait, Ombai Strait and Timor Passage). Makassar Strait carries ~75% of observed total ITF inflow. Wide and shallow Java and Arafura Seas carry -0.8 Sv of inflow)

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(online at: http://onlinelibrary.wiley.com/doi/10.1029/2011PA002132/pdf)
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Mohtadi, M., D.W. Oppo, S. Steinke, J.W. Stuut, R. De Pol-Holz, D. Hebbeln & A. Luckge (2011)- Glacial to Holocene swings of the Australian-Indonesian monsoon. Nature Geoscience 4, p. 540-544.
(online at: http://www.stuut.tv/Mohtadi_et_al_2011.pdf)
(Planktonic foraminiferal oxygen isotopes and faunal composition in a sediments offshore S Java show glacial-interglacial variations in Australian-Indonesian winter monsoon in phase with Indian summer monsoon system. Australian-Indonesian summer and winter monsoon variability closely linked to summer insolation and abrupt climate changes in N hemisphere)

Mohtadi, M., M. Prange, E Schefuss & T.C. Jennerjahn (2017)- Late Holocene slowdown of the Indian Ocean Walker circulation. Nature Communications 8, 1015, p. 1-8.
(online at: https://www.nature.com/articles/s41467-017-00855-3.pdf)
(Climate proxies in E Indian Ocean sediment cores off W and S Sumatra and S Java. During Last Glacial Maximum increased thermocline depth and rainfall, indicating stronger-than-today Walker circulation)

Mohtadi, M., S. Steinke, J. Groeneveld, H.G. Fink, T. Rixen, D. Hebbeln, B. Donner & B. Herunadi (2009)- Low-latitude control on seasonal and interannual changes in planktonic foraminiferal flux and shell geochemistry off south Java: a sediment trap study. Paleoceanography 24, 1, PA1201, p. 1-20.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2008PA001636/epdf)
(Planktonic foraminifera primary production rates in Indian Ocean off S Java highest during SE monsoon-induced coastal upwelling period in July- October, with Globigerina bulloides, Neogloboquadrina pachyderma (d) and Globigerinita glutinata 40% of total fauna. Habitats of 0-30m for G. ruber (mixed layer depth); 60-80m for P. obliquiloculata and 60–90m for N. dutertrei (upper thermocline depth); and 90-150 m for G. menardii (lower thermocline depth))

Mohtadi, M., S. Steinke, A. Luckge, J. Groeneveld & E.C. Hathorne (2010)- Glacial to Holocene surface hydrography of the tropical eastern Indian Ocean. Earth Planetary Sci. Letters 292, 1-2, p. 89-97.

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(online at: http://onlinelibrary.wiley.com/doi/10.1002/2017GL075504/epdf)
(Record of sea surface salinity in S Makassar Strait from 1927 to 2011, based on Porites coral δ18O from Doangdoangan Besar island. East Asian Winter Monsoon drives less saline surface waters from S China Sea into the Makassar Strait, obstructing surface Indonesian Throughflow, and strongly influences interannual sea surface salinity variability during boreal winter over 20th century)

Nienhuis, J.H., A.D. Ashton & L. Giosan (2015)- What makes a delta wave-dominated? Geology. 43, 6, p. 511-514.
(Morphology of deltas largely determined by balance between river inputs and ability of waves to spread sediments along coast. 'Fluvial dominance ratio' tested on 25 deltas on N shore of Java)

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(Seismic profiles in E Banda Sea area show evidence of several slumping- sliding events. High potential for slope failures in Banda Sea area due to high seismicity, steep submarine slopes and soft sediment deposits, especially below 1000m water depth)

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(Case study for interpretation of coastal sedimentation associated with large tsunamis)

Pilarczyk, J.E., T. Dura, B.P. Horton, S.E. Engelhart, A.C. Kemp, Y. Sawai (2014)- Microfossils from coastal environments as indicators of paleo-earthquakes, tsunamis and storms. Palaeogeogr. Palaeoclim. Palaeoecology 413, p. 144-157.
(Discussion of storm- and tsunami-related transport, with examples from Thailand, Malaysia, etc. Paleotsunami deposits commonly recognized as anomalous sand sheets that were washed into marsh or lake sediments. Marine microfossils often dominate tsunami overwash deposits because of landward transport and deposition of scoured marine sediment. Nearshore benthic foraminifera (Ammobaculites spp., Ammonia,etc.) may also be entrained by tsunami run-up and subsequently transported seaward by backwash, where they end up as allochthonous assemblages in low-energy submarine sediments)

Richmond, B.M., B.E. Jaffe, G. Gelfenbaum & R.A. Morton (2006)- Geologic impacts of the 2004 Indian Ocean tsunami on Indonesia, Sri Lanka, and the Maldives. Zeitschrift Geomorphologie, N.F., Suppl. 146, p. 235-251.
(December 26,2004 tsunami deposits generally characterized as relatively thin sheets (<80cm), mostly of sand)

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(Includes discussion of shallow southern Sunda Shelf/ Java Sea environments. Remnants of Pleistocene drainage channels still detectable on present sea floor. Java Sea modern carbonate buildups strong E-W orientation, response to dominant current directions triggered by monsoonal wind directions. Westerly monsoon brings large quantities of suspended terrigenous sediment to Sunda Shelf; easterly monsoon drives higher salinity water (33-35 ppt) into region from Banda Sea. Java Sea sediments mainly terrigenous muds derived from weathered volcanics (Sumatra and Java) and other crystalline rocks from Kalimantan, but with significant areas of carbonate sedimentation and reef development (Pulau Seribu, East Sunda Shelf margin))

Rodysill, J.R., J.M. Russell, S. Bijaksana, E.T. Brown, L.O. Safiuddin & H. Eggermont (2012)- A paleolimnological record of rainfall and drought from East Java, Indonesia during the last 1,400 years. J. Paleolimnology 47, 1, p. 125-139.
(Organic matter δ13C data from 6.8m core in Lake Logung, E Java indicate E Java became wetter over last millennium until ~1800 Common Era, consistent with evidence for S-ward migration of Intertropical Convergence Zone at this time. Century-scale hydrologic variability relates to changes in Walker Circulation)

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(online at: www.pnas.org/content/111/14/5100.full.pdf)
(Terrestrial sedimentary record of surface hydrology and vegetation in Indonesia in the last 60,000 yr, based upon geochemical data from Lake Towuti, Sulawesi. Wet conditions and rainforest ecosystems present during Holocene and during Marine Isotope Stage 3, alternating with severe drying between ∼33,000 and 16,000 ry B.P., when high-latitude ice sheets expanded and global temperatures cooled)

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(Analysis of recent changes of five major mangrove deltaic systems in Asia-Pacific region: Fly and Kikori-Purari, Ganges-Brahmaputra, Irrawaddyand Mekong. Overall net contraction in mangrove areas)

Sihombing, E.H., N. Oetary, I. Fardiansyah, R. Waren, E. Finaldhi, F. Fitris et al. (2016)- Modern fluvio-lacustrine system of Lake Singkarak, West Sumatra and its application as an analogue for Upper Red Bed Fm in the Central Sumatra Basin. Berita Sedimentologi 36, p. 9-33.
(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-36.html)
(Modern sediments of Sumpur axial-fluvial delta and Malalo alluvial fan delta in N part of Lake Singkarak, and comparison to Paleogene rift-fill of C Sumatra Basin)

Sprintall, J., J. Chong, F. Syamsudin, W. Morawitz, S. Hautala, N. Bray & S. Wijffels (1999)- Dynamics of the South Java Current in the Indo-Australian basin, Geophysical Research Letters 26, 16, p. 2493-2496.
(S Java Current poorly understood boundary current, reversing to SE-ward flow semi-annually around May and November. June-October SE monsoon winds lead to upwelling of cold, salty water)

Sprintall, J., A.L. Gordon, A. Koch-Larrouy, T. Lee, J.T. Potemra, K. Pujiana & S.E. Wijffels (2014)- The Indonesian seas and their role in the coupled ocean-climate system. Nature Geoscience 7, p. 487-492.
(online at: http://aoe.scitec.kobe-u.ac.jp/~mdy/library/papers/Sprintalletal2014NG.pdf)
(Indonesian Throughflow from Pacific to Indian Ocean through series of narrow straits. Strong velocities at depths of ~100 m. Intense vertical mixing within Indonesian seas, resulting in net upwelling of thermocline water, lowering sea surface temperatures by ~0.5 °C. Throughflow slows and shoals during El Nino events)

Steinke, S. M. Prange, C. Feist, J. Groeneveld & M. Mohtadi (2014)- Upwelling variability off southern Indonesia over the past two millennia. Geophysical Research Letters 41, p. 7684-7693.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2014GL061450/pdf)
(Along S coasts of Java, S Sumatra and Lesser Sunda Islands, SE winds from Australia generate intensive coastal upwelling in austral winter (June-September), bringing cooler nutrient-rich waters to surface resulting in enhanced biological productivity. Proxies for upwelling for last 2000 years in deep sea cores show strong upwelling during Little Ice Age and weak during Medieval War Period and Roman Warm Period)

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(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/106/96)

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(Tsunami deposits from Aceh earthquake of 26 December 2004 and Nias earthquake on March 2005. In 2004 tsunami sediments basal rip-up clasts and 6 (9?) fining-upward patterns and 6 coarsening upward patterns; in 2005 tsunami sediment only 1 fining upward pattern. With foraminifera assemblages from inner shelf (2004 and 2005) and middle shelf (2004 only))

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(Planktonic foraminifera O-isotope and Florisphaera profunda abundance data from Core MD06-3050 in W Philippine Sea on margin of W Pacific Warm Pool)

Surachmat, A. (1999)- Salinity of the modern Mahakam Delta, East Kalimantan. Berita Sedimentologi 12, p. 14-16.
(In Mahakam Delta upper delta plain (10-30 km from head-pass) only fresh water. Only last 10km of lower delta palain has brackish water withn salinties from 0-10 kppm. Brackish water in tidal channels with salinity 0-25 kppm. In active distributaries fresh water floats above saline water for 4-6 km)

Susanto, R.D., Z. Wei, T.R. Adi, Q. Zheng, G. Fang, B. Fan, A. Supangat, T. Agustiadi, S. Li, M. Trenggono & A. Setiawan (2016)- Oceanography surrounding Krakatau Volcano in the Sunda Strait, Indonesia. Oceanography 29, 2, p. 264-272.
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(Sunda Strait current velocity strongly affected by seasonal monsoon winds. During boreal winter monsoon NW winds draw waters from Indian Ocean into Java Sea. During the summer monsoon higher T, lower-salinity, and lower-density waters from Java Sea exported to Indian Ocean through Sunda Strait)

Syahrir, M.R., T. Hanjoko, A. Adnan, M. Yasser, M. Efendi, A.A. Budiarsa & I. Suyatna (2018)- The existence of estuarine coral reef at eastern front of Mahakam Delta, East Kalimantan, Indonesia, a first record. AACL Bioflux, Int. J. of the Bioflux Society 11, 2, p. 362-378.
(online at: http://www.bioflux.com.ro/docs/2018.362-378.pdf)
(Coral reef at NE front of Mahakam Delta with 30 genera of hard coral and 11 genera of soft coral

Szczucinski, W. (2012)- The post-depositional changes of the onshore 2004 tsunami deposits on the Andaman Sea coast of Thailand. Natural Hazards 60, 1, p. 115-133.
(online at: https://link.springer.com/article/10.1007/s11069-011-9956-8)
(2004 Indian Ocean tsunami flooded Andaman Sea coastal zone, leaving few mm to 10's of cm thick deposits over ~1 km-wide inundation zone. After 4 years tsunami deposits preserved at only half of studied sites)

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi & Y. Saito (2001)- Sedimentary facies, diatom and foraminifer assemblages in a late Pleistocene-Holocene incised-valley sequence from the Mekong River Delta, Bentre Province, Southern Vietnam: the BT2 core. J. Asian Earth Sci. 20, 1, p. 83-94.
(71m long core in incised vally fill shows post-glacial transgressive -regressive fill cycle. Maximum Holocene marine influence at ~5300 yr BP, with bay/estuary muds with common planktonic diatoms (Coscinodicus, Thalassionema, etc.) and open marine foraminifera (Bolivina, Bulimina, Quinqueloculina, Pararotalia). Regressive succession of prodelta- delta front (4000-3000 yr BP)- delta plain.)

Ta, T.K.O., V.L. Nguyen, M. Tateishi, I. Kobayashi, Y. Saito & T. Nakamura (2002)- Sediment facies and Late Holocene progradation of the Mekong River Delta in Bentre Province, southern Vietnam: an example of evolution from a tide-dominated to a tide- and wave-dominated delta. Sedimentary Geology 152, p. 313-325.

Tamura, T., Y. Saito, V.L. Nguyen, T.K.O. Ta, M.D. Bateman, D. Matsumoto & S. Yamashita (2012)- Origin and evolution of interdistributary delta plains; insights from Mekong River delta. Geology 40, 4, p. 303-306.
(Mekong River delta characterized by several shore-perpendicular elongate delta plains, with sequences of beach ridges, reflecting progradation in last 3.5 ka))

Tamura, T., Y. Saito, S. Sieng, B. Ben, M. Kong, I. Sim, S. Choup & F. Akiba (2009)- Initiation of the Mekong River delta at 8 ka: evidence from the sedimentary succession in the Cambodian lowland. Quaternary Science Reviews 28, 3-4, p. 327-344.
(Most modern deltas initiated around 7.5-9 ka, in response to deceleration of Holocene sea-level rise. Initial stage of Mekong River delta recorded in Cambodian lowland sediment cores: (1) aggrading flood plain and tidal-fluvial channels during postglacial sea-level rise (10- 8.4 ka); (2) aggrading to prograding tidal flats and mangrove forests around maximum flooding of sea (~8.0 ka;);(3) prograding fluvial system on delta plain (6.3 ka- Present). Delta progradation initiated as result of sea-level stillstand at around 8-7.5 ka. Thick mangrove peat accumulation from ~7.5- 6.3 ka. Since 6.3 ka fluvial system and delta progradation)

Tillinger, D. (2010)- The Indonesian Throughflow of the last 50 years. Ph.D. Thesis Columbia University, Palisades, New York, p. 1-101.
(Indonesian Throughflow transports ~15 Sv (1 Sv = 1 million m3/sec) of relatively cool and low salinity water from tropical Pacific Ocean into Indian Ocean. 50-year time series of transport calculated))

Tillinger, D. & A. Gordon (2009)- Fifty years of the Indonesian Throughflow. J. of Climate 22, 23, p. 6342-6355.
(online at: http://journals.ametsoc.org/doi/pdf/10.1175/2009JCLI2981.1)

Unverricht, D., W. Szczucinski, K. Stattegger, R. Jagodzinski, X.T. Le & L.L.W. Kwong (2013)- Modern sedimentation and morphology of the subaqueous Mekong Delta, southern Vietnam. Global and Planetary Change 110, B, p. 223-235.
(Mekong River Delta influenced by tides (meso-tidal system), waves, coastal currents, monsoon-driven river discharge and human impact. Subaqueous part large lateral variability, with two delta fronts, 200 km apart, one at mouth of Bassac distributary,one around Cape Ca Mau in SW. Two different sediment types in delta

Valsala, V. & S. Maksyutov (2010)- A short surface pathway of the subsurface Indonesian Throughflow water from the Java Coast associated with upwelling, Ekman transport, and subduction. Int. J. Oceanography 2010, 540783, 15p.
(online at: https://www.hindawi.com/journals/ijocean/2010/540783/)
(Circulation modeling suggests Pacific-origin Indonesian Throughflow water can upwell from position below 100m to surface along S Java coast during upwelling season)

Van Andel, T.H., G.R. Heath, T.C. Moore & D.F.R. McGeary (1967)- Late Quaternary history, climate, and oceanography of the Timor Sea northwestern Australia. American J. Science 265, p. 737-758.
(In late Quaternary climate in Timor Sea region more arid than adjacent land is today. Area mainly above sea level during last glaciation and covered by savanna vegetation. Subsequent transgression rapid. Supports Fairbridge contention that during glacial periods W-wind belts with associated rainfall displaced 5-10° N - ward and equatorial pluvial zone was compressed)

Van der Kaars, S. & G.D. van den Bergh (2004)- Anthropogenic changes in the landscape of west Java (Indonesia) during historic times, inferred from a sediment and pollen record from Teluk Banten. J. Quaternary Science 19, 3, p. 229-239.
(Palynological and charcoal analyses of core from coastal area of NW Java provide vegetation history for last few centuries. Effect of Krakatau eruption insignificant compared to human impact on vegetation in Banten)

Van Weering, T.C.E., D. Kusnida, S. Tjokrosapoetro, S. Lubis & P. Kridoharto (1989)- Slumping, sliding and the occurrence of acoustic voids in recent and subrecent sediments of the Savu Forearc Basin, Indonesia. In:

J.E. van Hinte et al. (eds.) Proc. Snellius II Symposium, Jakarta 1987, Netherlands J. Sea Research 24, 4, p. 415-430.
(High resolution seismic and acoustic profiles from Snellius-II Expedition in Savu Basin show widespread recent acoustic voids (transparent 'bright spots') that probably formed from local expulsion of pore-waters, caused by sediment mass movements down uplifted ridge between Sumba and Savu/Roti)

Webster, P.J.& N.A. Streten (1978)- Late Quaternary ice age climates of tropical Australasia: interpretations and reconstructions. Quaternary Research 10, 3, p. 279-309.

Wei, J., M.T. Li, P. Malanotte-Rizzoli, A.L. Gordon & D.X. Wang (2016)- Opposite variability of Indonesian Throughflow and South China Sea Throughflow in the Sulawesi Sea. J. Physical Oceanography 46, p. 3165-3180.
(online at: https://journals.ametsoc.org/doi/pdf/10.1175/JPO-D-16-0132.1)

Wetzel, A. (2002)-Modern *Nereites* in the South China Sea- ecological association with redox conditions in the sediment. Palaios 17, p. 507-515.
(Nereites trace fossil ichnofabrics in box cores from >4000m water depths in central S China Sea. Appear to be restricted to oxygenated sediments above redox boundary)

Wijffels, S.E., G. Meyers & J.S. Godfrey (2008)- A 20-yr average of the Indonesian Throughflow: regional currents and the interbasin exchange. J. Physical Oceanography 38, p. 1965-1978.
(online at: https://journals.ametsoc.org/doi/pdf/10.1175/2008JPO3987.1)

Wong, P.P. (2005)- The coastal environment of Southeast Asia. In: A. Gupta (ed.) The physical geography of Southeast Asia, Oxford University Press, p. 177-192.

Woodson, A.L., E. Leorri, S.J. Culver, D. J. Mallinson, P.R. Parham, R.C. Thunell, V.R. Vijayan & S. Curtis (2017)- Sea-surface temperatures for the last 7200 years from the eastern Sunda Shelf, South China Sea: climatic inferences from planktonic foraminiferal Mg/Ca ratios. Quaternary Science Reviews 165, p. 13-24.
(Temperature record in two cores from Holocene incised valley fills on Sunda Shelf off Sarawak)

Xu, Y., L. Wang, X. Yin, X. Ye, D. Li, S. Liu, X. Shi, R.A. Troa, R. Zuraida, E.Triarso & M. Hendrizan (2017)- The influence of the Sunda Strait opening on paleoenvironmental changes in the eastern Indian Ocean. J. Asian Earth Sci. 146, p. 402-411.
(With E Holocene sea level rise warm and low-salinity sea water from Java Sea was transported into E Indian Ocean after opening of Sunda Strait. Core CJ01-185 (1538m water depth) in E Indian Ocean off Sunda Strait sediments derived mainy from Java Island. Sedimentation rate increased from last glacial period to Holocene. Additional terrigenous nutrients from Java Sea induced paleoproductivity with higher TOC and TN concentrations after opening of Sunda Strait)

Yudhicara, A. Ibrahim, V. Asvaliantina, W. Kongko & W. Pranowo (2012)- Sedimentological properties of the 2010 Mentawai tsunami deposit. Bull. Marine Geol. 27, 2, p. 55-65.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/45/46)
(Thickness of 2010 Mentawai tsunami deposits on Sipora and Pagai islands off W Sumatra 1.5-22 cm. Generally composed of fine-coarse sand, in irregular contact with underlying soil. Commonly multiple layers: run up at bottom and back wash at top. Fining upward, parallel lamination and soil clasts observed. Fossils generally rare, but include shallow marine foraminifera and abundant sponge spicules)

Yudhicara, Y. Zaim, Y. Rizal, Aswan, R. Triyono, U. Setiyono & D. Hartanto (2013)- Characteristics of paleotsunami sediments, a case study in Cilacap and Pangandaran coastal areas, Jawa, Indonesia. Indonesian J. Geology 8, 4, p. 163-175.
(online at: http://oaji.net/articles/2014/1150-1408504454.pdf)

(In Pangandaran, S Java, two possible tsunami deposits on top of soil horizons: 5-6 cm layer of coarse sand at top as 2006 tsunami deposit and 5-10 cm sand layer at bottom as paleotsunami. Sands contain (Miocene?) planktonic and shallow marine foraminifera)

Zhang, P., R. Zuraida, J. Xu, & C. Yang (2016)- Stable carbon and oxygen isotopes of four planktonic foraminiferal species from core-top sediments of the Indonesian Throughflow region and their significance. Acta Oceanologica Sinica 35, 10, p. 63-76.
(Horizontal and vertical distributions of δ18O and δ13C investigated in Globigerinoides ruber, Gs sacculifer, Pulleniatina obliquiloculata and Neogloboquadrina dutertrei, from 62 core-top samples from Indonesian Throughflow region. In Makassar Strait depleted δ18O and δ13C linked to freshwater input. In Bali Sea depleted δ18O result of freshwater input, while depleted δ13C more likely due to Java-Sumatra upwelling. G. ruber and G. sacculifer calcify within mixed-layer, respectively at 0-50 m and 20-75 m water depth, and P. obliquiloculata and N. dutertrei within upper thermocline at 75-125 m water depth)

I.5. SE Asia Carbonates, Coral Reefs (24)

Cabioch, G., L. Montaggioni, N. Thouveny, N. Frank, T. Sato, V. Chazottes, H. Dalamasso, C. Payri, M. Pichon & A.M. Semah (2008)- The chronology and structure of the western New Caledonian barrier reef tracts. Palaeogeogr. Palaeoclim. Palaeoecology 268, p. 91-105.
(Development of New Caledonia barrier reef result of interplay between margin subsidence and sea-level changes. Major W shelf-margin building appears to have started during MIS 11 (400 ka) from shallow-water carbonate platform deposits older than 780 ka. Climatic conditions likely not optimal before late Quaternary, resulting in luxuriant reef expansion only in last 400,000 yrs)

Collins, L.B. (2002)- Tertiary foundations and Quaternary evolution of coral reef systems of Australia's North West Shelf. In: M. Keep & S. Moss (eds.) The sedimentary basins of Western Australia 3, Proc. West Australian Basin Symposium, Petroleum Expl. Soc. Australia (PESA), Perth, p. 129-152.
(NW Shelf is modern tropical ramp, underlain by Cretaceous-Tertiary carbonates. Late Tertiary-Quaternary, fringing to isolated coral reefs rise from deep-ramp settings. Scott Reef is isolated reef formed mainly during Last Interglacial (~125 ka). Other reefs that apparently grew to sea level are now 30m below present sea level, indicating significant subsidence in Late Quaternary. Contemporary reefs grew during Holocene in accommodation space provided by subsidence and are up to 35m thick. Rowley Shoals emergent annular reefs rise from depths of 200-400 m. Possible spatial association between reef systems and hydrocarbon seeps)

Collins, L.B., V. Testa, J. Zhao & D. Qu (2010)- Holocene growth history and evolution of the Scott Reef carbonate platform and coral reef. J. Royal Soc. Western Australia 94, p. 239-250.
(online at: www.rswa.org.au/publications/Journal/94(2)/Collinsetal.pp.239-250.pdf)
(Scott Reef is small carbonate platform located in distal ramp setting on Australia NW Shelf. Rising from depths of 400-700 m. Composed of of two large isolated coral reefs. Present-day reef morphology developed mainly in Holocene. Developed over Late Triassic anticline; area probably above sea level from Permian- Late Jurassic)

Flamand, B., G. Cabioch, C. Payri & B. Pelletier (2008)- Nature and biological composition of the New Caledonian outer barrier reef slopes. Marine Geology 250, p. 157-179.
(Grande Terre island of New Caledonia enclosed by one of longest barrier reefs in world. Forereef slopes from 40- 320m depth with 7 sedimentary facies. From upper reef slopes to ~90m thick coralline algal crusts dominant. Three groups: (C), shallowest, mainly mastophorids (Hydrolithon, Lithoporella, Neogoniolithon) and Lithophyllum); (B) Lithophyllum spp, Mesophyllum and Peyssonnelia from 15-40m; (A) rich in Mesophyllum, Peyssonnelia, Sporolithon on deep reef slopes up to 90m. Below ~90m encrusting foraminifera acervulinids progressively replace coralline algal crusts)

Gallagher, S.J., M.W. Wallace, P.W. Hoiles & J.M. Southwood (2014)- Seismic and stratigraphic evidence for reef expansion and onset of aridity on the North West Shelf of Australia during the Pleistocene. Marine Petroleum Geol. 57, p. 470-481.

(Previously unknown series of drowned fossil reefs in NW Australia shelf described. Reefs formed around 0.5 Ma with oldest ooids in Indian Ocean. Reef expansion partly due to increased Leeuwin Current intensity. Tropical facies expanded with onset of aridification of Australia after 0.6 Ma)

Huang, D., W.Y. Licuanan, B.W. Hoeksema, C.A. Chen, P.O. Ang, H. Huang, D.J.W. Lane, S.T. Vo, Z. Waheed, Y. Affendi, T. Yeemin & L.M. Chou (2015)- Extraordinary diversity of reef corals in the South China Sea. Marine Biodiversity 45, 2, p. 157-168.
(Reefs across S China Sea with 571 known species of reef corals)

Iryu, Y. (1997)- Pleistocene fore-reef rhodoliths from the Ryukyu Islands, southwestern Japan. In: H.A. Lessios and I.G. Macintyre (eds.) Proc. 8th Int. Coral Reef Symposium, Panama, 1, p. 749-754.
(Well-rounded rhodoliths 1-8 cm consist of multiple species of nongeliculatecoralline algae and encrusting foraminifer Acervulina inhaerens, together forming concentric internal structure. Thought to have formed in deep fore reef to shelf, at 50-150m depth. Often associated with Cycloclypeus- Operculina foram assemblage)

Keith, S.A., A.H. Baird, T.P. Hughes, J. S. Madin & S.R. Connolly (2013)- Faunal breaks and species composition of Indo-Pacific corals: the role of plate tectonics, environment and habitat distribution. Proc. Royal Society (London) B 280, 20130818, p. 1-9.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3774232/pdf/rspb20130818.pdf)
(On concordance between geological features and coral biogeographical structure)

Kench, P.S. & T. Mann (2017)- Reef island evolution and dynamics: insights from the Indian and Pacific Oceans and perspectives for the Spermonde Archipelago. Frontiers in Marine Science 4, 145, p. 1-17.
(online at: https://www.frontiersin.org/articles/10.3389/fmars.2017.00145/full)

Matsuda, S. &Y Iryu (2011)- Rhodoliths from deep fore-reef to shelf areas around Okinawa-jima, Ryukyu Islands, Japan. Marine Geology 282, p. 215-230.
(Rhodoliths common in deep fore-reef to shelf areas at 50-135m water depths around Okinawa-jima)

McNeil, M., J.M. Webster, R. Beaman & T. Graham (2016)- New constraints on the spatial distribution and morphology of the *Halimeda* bioherms of the Great Barrier Reef, Australia. Coral Reefs 35, 4, p. 1343-1355.
(Halimeda bioherm formation and distribution controlled by interaction of outer-shelf geometry, regional and local currents, coupled with morphology and depth of continental slope submarine canyons determining delivery of cool, nutrient-rich water upwelling through inter-reef passages)

Meltzner, A.J., A.D. Switzer, B.P. Horton, E. Ashe, Q. Qiu, D.F. Hill, S.L. Bradley, R.E. Kopp et al. (2017)- Half-metre sea-level fluctuations on centennial timescales from mid-Holocene corals of Southeast Asia. Nature Commun. 2017; 8, 14387, p. 1-16.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5309900/pdf/ncomms14387.pdf)
(Slabs of colonial coral from microatolls of Belitung Island on Sunda Shelf suggest sea level history between 6850-6500 yrs BP with two 0.6m fluctuations. Similar observations along S coast of China. Observed sea level fluctuations may reflect changes in dynamic sea surface height, local steric effects or eustatic changes)

Pandolfi, J.M., A.W. Tudhope, G. Burr, J. Chappell, E. Edinger, M. Frey et al. (2006)- Mass mortality following disturbance in Holocene coral reefs from Papua New Guinea. Geology34, 11, p. 949-952.
(Evidence for several episodes of coral mass mortality in uplifted E-M-Holocene reef terraces and reefs along Huon Peninsula. Most striking mortality event at 9100-9400 yr B.P., associated with volcanic ash horizon)

Phipps, C.V.G., P.J. Davies and D. Hopley, 1985)- The morphology of *Halimeda* banks behind the Great Barrier Reef East of Cooktown, QLD. In: M. Harmelin Vivien & B. Salvat (eds.) Proc. Fifth Int. Coral Reef Congress, Tahiti 1985, 5, Miscellaneous Papers, p. 27-30.
(Halimeda banks of Great Barrier reef consist of ridges up to 15m high. Two species of Halimeda. Reefs grown only in last 8000 yrs. Positions suggest association with ingressions of nutrient-rich water into lagoonal area))

Polonia, A.R.M., D.F.R. Cleary, N.J. de Voogd, W. Renema, B.W. Hoeksema, A. Martins & N.C.M. Gomes (2015)- Habitat and water quality variables as predictors of community composition in an Indonesian coral reef: a multi-taxon study in the Spermonde Archipelago. Science of the Total Environment 537, p. 139-151.

Santoso, W.D., Y. Zaim & Y. Rizal (2017)- Carbonate biofacies and paleoecology analysis based on *Acropora* coral in Ujunggenteng area, West Java Province, Indonesia. J. Riset Geologi Pertambangan (LIPI) 27, 2, p. 179-188.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/477/pdf)
(Limestone at Ujung Genteng, SW Java, with three Acropora coral associations, tied to 0-13m paleobathymetry. (Age?))

Solihuddin, T. (2017)- Atoll reef geomorphology of Sagori Island, SE Sulawesi: a reconnaissance study. Indonesian J. Geoscience 4, 3, p. 181-191.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/386/247)

Umbgrove, J.H.F. (1939)- Madreporaria from the Bay of Batavia. Zoologische Mededelingen 22, 1, p. 1-64.
(online at: www.repository.naturalis.nl/document/149596)

Utami, D.A. & A.R. Hakim (2018)- Carbonate sedimentology of Seribu Islands patch reef complex: a literature review. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conf. Series, Earth Environm. Science 118, 012013, p. 1-6.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012013/pdf)

Veron, J., M. Stafford-Smith, L. DeVantier& E. Turak (2015)- Overview of distribution patterns of zooxanthellate Scleractinia. Frontiers Marine Science 1, 81, p. 1-19.
(online at: http://journal.frontiersin.org/article/10.3389/fmars.2014.00081/full)
(Global study of present-day geographic distributions of corals. Birds Head- Sulu Sea region is global center of peak coral diversity))

Wallace, C.C. (2001)- Wallace's line and marine organisms: the distribution of staghorn corals (*Acropora*) in Indonesia. In: I. Metcalfe (ed.) Faunal and floral migrations and evolution in SE Asia-Australasia, Balkema, p. 168-178.
(Distribution patterns of 89 species of Acropora staghorn coral, which has highest diversity in Wallacea region (but is not center of origin). In Indonesian Archipelago overlap of Indian Ocean species (diminishing E-ward) and Pacific Ocean species (diminishing W-wards), with stronger Pacific influence)

Wilson, M.E.J. (2015)- Oligo-Miocene variability in carbonate producers and platforms of the Coral Triangle biodiversity hotspot; habitat mosaics and marine biodiversity. Palaios 30, 1, p. 150-168.
(Mainly review of Tertiary carbonates of Kutai Basin of E Kalimantan)

Wizemann, A., T. Mann, A. Klicpera & H. Westphal (2015)- Microstructural analyses of sedimentary *Halimeda* segments from the Spermonde Archipelago (SW Sulawesi, Indonesia): a new indicator for sediment transport in tropical reef islands? Facies 61, 2, p. 1-18.

Yamano, H., G. Cabioch, B. Pelletier, C. Chevillon, H. Tachikawa et al. (2015)- Modern carbonate sedimentary facies on the outer shelf and slope around New Caledonia. Island Arc 24, p. 4-15.
(Encrusted grains facies (rhodoliths, macroids) generally distributed at depths of 75-200m and associated with Cycloclypeus carpenteri. Ahermatypic coral facies on cone-like mounds at depths of 240-520m)

II. SUMATRA- SUNDA SHELF (283)

II.1. Sumatra - General, onshore geology, volcanism, minerals (90)

Abidin, H.Z. & T. Suwarti (2005)- Petrology and gochemistry of the Neogene granite in the Kerinci Regency Region, Jambi. Majalah Geologi Indonesia 20, 3, p. 155-164.
(Reprinted in 'Metalogeni Sundaland I (2014), p. 15-24. Mio-Pliocene Sungau Penuh granite pluton in Barisan Range, age 3.6- 13.9 Ma. S-type and transitional/ I-type granite, derived from island arc. Mineralization potential)

Abidin, H.Z. & Suyono (2004)- Indication of mineral deposit in the Kerinci Regency Region, Jambi. Majalah Geologi Indonesia 19, 3, p. 173-185.
(Reprinted in 'Metalogeni Sundaland I (2014), p. 3-13. Sulfide alteration in Hulu Simpang Fm volcanics ('Old Andesite') in Barisan Range W of Sungeipenuh, S Sumatra. Tied to granite with 3.6- 13.9 Ma fission track ages)

Abidin, H.Z. &.H. Utoyo (2014)- Mineralization of the selected base metal deposits in the Barisan Range, Sumatera, Indonesia (case study at Lokop, Dairi, Latong, Tanjung Balit and Tuboh). Indonesian Mining J. 17, 3, p. 122-133.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/316/199)
(Three types of base metal occurrences along Barisan Range: (1) skarn (e.g. Lokop, Latong, Tuboh) (2) sedimentary exhalative (sedex) (Dairi; in Kluet Fm) and (3) hydrothermal (Tanjung Balit; in Silungkang Fm)

Acocella, V., O. Bellier, L. Sandri, M. Sebrier & S. Pramumijoyo (2018)- Weak tectono-magmatic relationships along an obliquely convergent plate boundary, Sumatra, Indonesia. Frontiers Earth Sci. 6, 3, p. 1-20.
(online at: https://www.frontiersin.org/articles/10.3389/feart.2018.00003/full)
(Sumatra volcanic arc 48 active volcanoes; 46% within 10 km from dextral Great Sumatra Fault, which carries most horizontal displacement on overriding plate. Half of these show possible structural relation to GSF. Data suggest limited tectonic control of GSF on arc volcanism)

Advokaat, E., M. Bongers, A. Rudyawan, M. Boudagher-Fadel, C.G. Langereis & D. van Hinsbergen (2018)- Early Cretaceous origin of the Woyla Arc (Sumatra, Indonesia) on the Australian plate. Earth Planetary Sci. Letters 487, p. 151-164.
(online at: https://www.sciencedirect.com/science/article/pii/S0012821X18300463)
(Paper retracted 2018, shortly after publication due to erroneous paleomag data. Intra-oceanic Woyla Arc formed above W-dipping subduction zone in E Cretaceous and accreted to W Sundaland in Mid-Cretaceous. Oceanic plate that existed between Woyla Arc and Sundaland now lost to subduction. Paleomagnetic results indicate Woyla Arc formed at equatorial latitudes, presumably on edge of Australian plate. Accretion of Woyla Arc to W Sundaland margin diachronous. Continuing convergence of Australia- Eurasia accommodated by subduction polarity reversal behind Woyla Arc, possibly recorded by Cretaceous ophiolites in Indo-Burman Ranges and Andaman-Nicobar Islands. Biostrat from limestones in Woyla Gp: N Sumatra Lamno and Raba Lst Late Jurassic- E Cretaceous, C Sumatra massive Indarung/Lubuk Peraku Lst Aptian- E Albian)

Advokaat, E., M. Bongers, D. van Hinsbergen, A. Rudyawan & E. Marshal (2017)- Paleomagnetic tests for tectonic reconstructions of the Late Jurassic- Early Cretaceous Woyla Group, Sumatra. EGU General Assembly 2017, Geophysical Research Abstracts 19, EGU2017-4720, 1p. *(Abstract only)*
(Woyla Arc exposed in W Sumatra mainly basaltic- andesitic volcanics, dykes, volcaniclastics and limestones with volcanic debris, interpreted as fringing reefs. Interpreted as remnants of E Cretaceous intra-oceanic arc. New preliminary paleomagnetic data from U Jurassic- Lower Cretaceous limestones suggest Woyla Arc formed near equatorial latitudes, precluding origin from Gondwana, and more likely intra-oceanic arc formed above SW dipping subduction zone in E Cretaceous, thrusted over W Sumatra margin in M Cretaceous)

Aernout, W.A.J. (1927)- De ertsmijn Lebong Donok. De Mijningenieur 8, p. 162-177.
('The ore mine Lebong Donok'. Gold-silver mine in Barisan Mts of SW Sumatra)

Aribowo, S. (2018)- The geometry of pull-apart basins in the southern part of Sumatran strike-slip fault zone. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conf. Series, Earth Environm. Science 118, 012002, p. 1-5.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012002/pdf)
(On two lake-forming pull-apart basins between overstepping segments of Great Sumatra Fault zone in S Sumatra; Ranau and Suoh)

Aribowo, S., Munasri, M.M. Mukti, H. Permana & N. Supriatna (2016)- Geologi struktur pada daerah subduksi purba di Komplek Gunungkasih, Provinsi Lampung. In: R. Delinom et al. (eds.) Pros. Geotek Expo 2016, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 363-371.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2017/10/05/prosiding-2016/)
('Structural geology of ancient subduction zone in the Gunungkasih Complex, Lampung Province')

Barton, M.D., C. Kieft, E.A.J. Burke & I.S. Oen (1978)- Uytenbogaardtite, a new silver-gold sulfide. Canadian Mineralogist 16, p. 651-657.
(New mineral uytenbogaardtite (Ag3AuS2) from hydrothermally-altered Tertiary andesitic rocks of Tambang Sawah, Bengkulu District, W Sumatra)

Booi, M.(2017)- Innovation and stasis: gymnosperms from the early Permian Jambi flora. Ph.D. Thesis Leiden University, p. 1-220.
(parts online at: https://openaccess.leidenuniv.nl/handle/1887/57351)
(E Permian (296 Ma) 'Cathaysian' Jambi Flora from outcrops near Bangko in Sumatra characterized by plant groups known from classic coal swamp floras, as well as newly emerging groups that would play important role in vegetations of Permian era. Latter group with ecology generally drier than swamp flora species. Quantitative morphologic analysis of early gymnosperm woods suggests no individual species can be discerned)

Bronto, S., P. Asmoro, G. Hartono & S. Sulistiyono (2012)- Gunung api purba di daerah Bakauheni- Pulau Sangiang, Selat Sunda, Kabupaten Lampung Selatan. J. Geologi Sumberdaya Mineral 22, 1, p. 3-14.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/102/94)
('Paleovolcanoes in the Bakauheni area- Sangiang Island, Sunda Strait, South Lampung Regency'. Three paleovocanoes in N Sunda Straits, along planned Sunda Strait bridge route between Merak- Bakauheni)

Brouwer, H.A. (1915)- Uber einen Granitkontakthof in Mittelsumatra. Geol. Rundschau 5, p. 551-554.
(online at: https://www.digizeitschriften.de/dms/img/?PID=GDZPPN000452483)
('About a granite contact zone in Central Sumatra'. Hornfels contactmetamorphism rich in biotite at contact between granite and adjacent shales, between Rakan and Lubuk Bandhara))

Brouwer, H.A. (1915)- Pneumatolytic hornfels from the hill countries of Siak (Sumatra). Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 18, 1, p. 584-591.
(online at: www.dwc.knaw.nl/DL/publications/PU00012536.pdf)
(Contact-metamorphic hornfelsels near contact with tourmaline-bearing granites (without biotite?) in hill countries of Siak with common tourmaline. Also alluvial tin ores in area)

Costa, A., V.C. Smith, G. Macedonio & N.E. Matthews (2014)- The magnitude and impact of the Youngest Toba Tuff super-eruption. Frontiers Earth Sci. 2014, 2, 16, p. 1-8.
(online at: http://journal.frontiersin.org/article/10.3389/feart.2014.00016/full)
(Model of ash distribution and volume of Youngest Toba Tuff, erupted 75,000 years ago. Eruption dispersed ~8600 km3 of ash (= ~3800 km3 dense rock equivalent/ DRE), covering ~40 million km2 with >5 mm of ash. Total volume (incl. 1500 km3 DRE pyroclastic density current deposits on Sumatra) was ~5300 km3 DRE)

Crow, M.J., C.C. Johnson, W.J. McCourt & Harmanto (1993)- The simplified geology and known metalliferous mineral occurrences, Padang Quadrangle, Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geol. Survey, Spec. Publ. 49-B, p. 1-18.

(Brief review of W Sumatra Padang map sheet geology and metallic mineral occurrences (Au-Ag, Cu, Pb-Zn). With old gold-silver mines Mangani, Balimbing, Pamicikan, Pagadis, etc., in epithermal quartz veins, associated with Plio-Pleistocene andesitic volcanics and young extensional faults. Also Pb-Zn anomalies at Salodako NNE of Padang near skarn associated with Tertiary granite)

Crow, M.J., C.C. Johnson, W.J. McCourt & Harmanto (1993)- The simplified geology and known metalliferous mineral occurrences, Solok Quadrangle Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geol. Survey, Spec. Publ. 50-B, p. 1-19.
(Summary of SW Sumatra Solok quad geology and metallic mineral occurrences (Cu, Au, Ag, Fe). Gold-silver in quartz veins hosted in Oligo-Miocene volcanics, copper mineralization in hydrothermal veins (Timbulan) and limestone skarns and alluvial gold deposits in Bengkalis area)

Crow, M.J., C.C. Johnson, W.J. McCourt & Harmanto (1993)- The simplified geology and known metalliferous mineral occurrences, Painan Quadrangle, Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geol. Survey, Spec. Publ. 52-B, p. 1-30.
(Painan Sheet of W Sumatra with basement of Carboniferous? and Permo-Triassic metasediments (with Permian arc volcanism, deep marine Triassic), Late Triassic- Jurassic granitoids, late Jurassic- E Cretaceous metalimestones and clastics (Woyla Gp), also serpentinite bodies. Unconformably overlain by Oligocene and younger sediments and volcanics. With listing of metallic mineral occurrences)

Crow, M.J., C.C. Johnson, W.J. McCourt & Harmanto (1993)- The simplified geology and known metalliferous mineral occurrences, Sungaipenuh and Ketaun Quadrangles, Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geol. Survey, Spec. Publ. 54-B, p. 1-17.
(SW Sumatra map sheets, with active Lebong Tandai gold-silver mine in mineralized breccia in Ketaun Quad. Oldest rock is extreme NE corner: M Permian volcanics of Palepat Fm, intruded by laterst Triassic- E Jurassic Tantan Granite. M-L Jurassic flysch-type Asai Fm and shallow marine Late Jurassic- E Cretaceous Peneta Fm (part of Woyla Gp foreland to island arc). With listing of metallic mineral occurrences (Cu, Pb, Zn, Au, Ag))

Crow, M.J., C.C. Johnson, W.J. McCourt & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Bengkulu Quadrangle Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geol. Survey, Spec. Publ. 57-B, p. 1-19.
(Map sheet dominated by Tertiary- Recent volcanic products of Barisan Range. In SE corner Gumai Mts with remnants of Late Mesozoic subduction Complex, similar to Woyla Gp in N Sumatra. With many former mines of Lebong Mining District, active between ~1906-1941. Etc. With listing of metallic mineral occurrences (Au, Ag, Pb, Zn, Cu))

Crow, M.J., C.C. Johnson, W.J. McCourt & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Manna Quadrangle (0911), Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geol. Survey, Spec. Publ. 59-B, p. 1-19.
(SW Sumatra map sheet dominated by Tertiary- Recent volcanic products of Barisan Arc and flanking Bengkulu forearc basin. With listing of metallic mineral occurrences (Au, Pb- Zn, Ag, Cu), mainly around Tanjungsakti of Sumatra Fault Zone)

Crow, M.J., W.J. McCourt & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Rengat Quadrangle, southern Sumatra (0915). Direct. Mineral Resources, Bandung/ British Geol. Survey, Spec. Publ. 51-B, p. 1-22.
(SE Sumatra map sheet with oldest exposed rocks metasediments and NW-SE striking low metamorphic Permo-Carboniferous Tigapuluh Gp meta-clastics and limestones (probaby correlative to glacial or debris flow Bohorok Fm of N Sumatra). Intruded by porphyritic granitoids with K-Ar ages from ~198-128 Ma (most whole rock radiometric ages too young; granites may be slightly younger (earliest Jurassic) continuation of Late Triassic (~220 Ma) Main Range-equivalent S-type granites of Malay Peninsula). Three deformation phases. Many small alluvial Sn, W(cassiterite) occurrences near granites of Tigapuluh Mts in S, Au occurrences in W. Also primary cassiterite veins in greisen at Sungei Isahan granite))

Crow, M.J., W.J. McCourt & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Muarabungo and Jambi Quadrangles Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geol. Survey, Spec. Publ. 53-B, p. 1-19.
(Oldest rocks exposed in Tigapuluh Mts: NW-SE striking low metamorphic Permo-Carboniferous Tigapuluh Gp meta-clastics and limestones, intruded by Late Triassic- E-M Jurassic granitoids (K-Ar mineral ages ~198, 180 Ma). With Permian pebbly mudstones, probaby correlative to glacial Bohorok Fm of N Sumatra. Etc. With listing of metallic mineral (Sn, Au) deposits (rel. common alluvial cassiterite, but non-economic))

Crow, M.J., W.J. McCourt, C.C. Johnson & Harmanto (1994)- The simplified geology and known metalliferous mineral occurrences, Baturaja Quadrangle, Southern Sumatra. Direct. Mineral Resources, Bandung/ British Geol. Survey, Spec. Publ. 60-B, p. 1-19.
(Oldest rocks exposed in Baturaja Sheet in Garba Mts and are ?Carboniferous- Mesozoic metasediments. Mesozoic of Garba Mts includes highly tectonized late Jurassic- E Cretaceous radiolarian cherts, associated with metavolcanics, melange and ultrabasic rocks; can be correlated with Lingsing series of Gumai Mts and oceanic sequences of Woyla Gp. Granitoids along E side of Barisan Range of M-L Cretaceous age (115-80 Ma), postdating accretion of Woyla Gp. With listing of metallic (Au, Ag, Sn) mineral deposits)

Dahlius, A.Z., A. Purba & H. Wibowo (2007)- Geology and alteration-mineralization characteristics of Timbaan epithermal gold deposit in South Solok, West Sumatra, Indonesia. Proc. Joint Conv. 32nd HAGI, 36th IAGI and 29th IATMI, Bali, p. 1339-1346.

De Haan, W. (1929)- De Mangani breccia. De Mijningenieur 10, 3, p. 62-65.

Druif, J.H. (1934)- De bodem van Deli. II. Mineralogische onderzoekingen van de bodem van Deli. Bulletin Deli Proefstation Medan 32, p. 1-195.
('The soil of Deli. I1. Mineralogical investigations of the soil of Deli'. Part 2 of 3-volume series)

Druif, J.H. (1938)- De bodem van Deli (Slot). De Deli gronden en hun eigenschappen. Buitenzorgsche Drukkerij, p. 1-140.
('The soil of Deli (Final). The soils of Deli and their characteristics'. Part 3 of 3-volume series)

Detourbet, C. (1995)- Analyse des relations entre la Grande Faille de Sumatra (Indonesie) et les structures compressives del lôarriere arc. Ph.D. thesis, Universite de Paris-Sud, Orsay, p. *(Unpublished)*
('Analysis of the relations between the Great Sumatra Great Fault and the compressiional structures of the back arc'. Total young shortening in C Sumatra basin ~14 km since M Miocene, representing 4% of initial width of basin. Compressional movements in back-arc accommodate only small portion of oblique convergence in Sumatra)

Eklund, O. (1933)- Guldsilverbergsbruket i vastra Sumatra. Teknisk Tidskrift Bergsvetenskap 1933, 1, p. 1-5.
(online at: http://runeberg.org/tektid/1933b/0003.html)
(In Swedish; 'Gold-silver mines in West Sumatra'. Brief review of geology and mineralization at W Sumatra gold mines Mangani, Simau, etc. With follow-up on mining practices and reserves in 1933-2 issue, p. 12-16)

Fernandez-Blanco, D., M. Philippon & C. von Hagke (2016)- Structure and kinematics of the Sumatran Fault System in North Sumatra (Indonesia). Tectonophysics 693, B, p. 453-464.
(Study of northern sector of Sumatran Fault System at northernmost tip of Sumatra and islands to NW. Fault bifurcates into two fault strands and two independent kinematic regimes evolve: E branch is classic Riedel system, W branch features fold-thrust belt, accommodating ~20% of shortening of system in study area)

Furqan, R.A. (2014)- The geology of Pinang-Pinang Au-Cu±Mo skarn, Aceh, Indonesia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 291-299.
(Pinang-Pinang gold-copper±molybdenum project ~20km SE of Tapaktuan on SW coast of Aceh consists of two skarn deposits,~3km apart. Granitoids and limestones present but no ages discussed)

Hakim, A.S. (2003)- Cebakan Sedex Zn-Pb di daerah Pagar Gunung, Kabupaten Kotanopan, Kabupaten Madina, Sumatera Utara. Bul. Geologi, ITB, 35, 3, p. 117-131.
(Zn-Pb sedimentary-exhalative deposits in the Pagar Gunung area, Kotanopan and Madina regencies, North Sumatra')

Hakim, A.Y.A., M.N. Heriawan, T. Indriati, D.B. Darma & M. Sanjaya (2013)- Mineralogical observation of Fe-skarn deposit in Lhoong Prospect, Nanggroe Aceh Darussalam, Indonesia. Int. Symposium on Earth Science and Technology 2013, Fukuoka, p. 274-279.
(Fe-Cu skarn deposit at contact of Miocene? Geunteut granodiorite and E Cretaceous Raba and Lamno Limestones associated with Bentaro Volcanics in Barisan Mts of N Sumatra (= probably part of Woyla arc terranes; see also Susanto and Suparka 2012))

Hamid, D., S. Ardiansyah & B. Safrihadi (2014)- Discovery, exploration history and geology of the Upper Tengkereng porphyry gold and copper deposit, Gayo Lues, Aceh. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 219-244.
(Upper Tengkereng Au-Cu-(Mo) porphyry deposit in Gayo Lues regency, C Aceh. One of six porphyries in Tengkereng - Ise Ise mineralization belt, associated with Late Pliocene (~2.0 Ma) age intrusive complexes in M Jurassic? volcanics and limestones of the Woyla Gp)

Handini, E., N.I. Setiawan, S. Husein, P.C. Adi & Hendarsyah (2017)- Petrologi batuan alas cekungan (Basement) Pra-Tersier di Pegunungan Garba, Sumatera Selatan. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 2p.
('Petrology of basement rocks (Basement) Pre-Tertiary in Garba Mountains, South Sumatra'. Brief report on basement rocks in Garba Mts: (1) metamorphics dominated by phyllites (Carboniferous- E Permian Tarap Fm?);(2) andesites- gabbro (E Cretaceous); (3) polymict breccia of clay matrix with chert, marble blocks; (4) youngest unit Garba granite, with new K-Ar date of 91.3 ± 1.9 Ma. Garba Mts part of Jurassic- Cretaceous Saling volcanic arc, in E Cretaceous collision zone between Woyla and W Sumatra terranes?)

Harahap, B.H. & Z.A. Abidin (2012)- Karakteristik inklusi fluida dalam mineralisasi emas di daerah Lumban Julu, Tobasa, Sumatra Utara. J. Sumber Daya Geologi 22, 3, p. 155-168.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/117/108)
('Characteristics of fluid inclusions in gold mineralization in the Lumban Julu area, Tobasa, North Sumatra'. Quartz veins in Lumban Julu area with Ag-Au-Cu-Pb-Zn mineralization. Fluid inclusions in quartz consist of liquid and vapor. Two systems of mineral deposition in area: (1) associated with high-T with mesothermal system at ~1600m depth and (2) associated with ephythermal system at ~550m depth)

Harahap, B.H. & Harmanto (1987)- Tin mineralization in Pegunungan Tigapuluh, Central Sumatra. Indonesia. In: W. Gocht (ed.) Proc. Seminar on Importance of primary tin mining in Southeast Asia, Bandung 1986, Intertechnik 28, Aachen, p. 111-124.
(Cassiterite- arsenopyrite mineralization in 70-100cm quartz veins in marginal greisen zone of Sungei Isahan granite, Tigapuluh Mts, E C Sumatra. Up to 7.5 kg/m3 cassiterite in stream sediment (see also Schwartz 1987))

Hariawan, M.N. & T. Mulya (2017)- Spatial relations between gold, associated metals and lithologies at the Miwah acid-sulfate (high sulfidation) epithermal deposit, Aceh, North Sumatra, Indonesia. Proc. 14th SGA Biennial Meeting- Mineral resources to discover, Quebec 2017, 4, p.1353-1356.

Hastuti, E.W.D. (2017)- Geochemical study of pyroclastic rocks in Maninjau Lake, West Sumatra. In: 2nd Int. Conf. Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conf. Series, Earth Environm. Science, 71, 012034, p. 1-9.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012034/pdf)
(Pleistocene- Holocene pyroclastic deposits in Maninjau area in Barisan Mts range in composition from high-K rhyolite to calc-alkaline andesite)

Huguenin, O.F.U.J. (1854)- Mijnbouwkundig onderzoek der kopererts en in de Residentie Padangsche Bovenlanden. Natuurkundig Tijdschrift Nederlandsch-Indie 6, p. 223-254.
('Mining investigation of the copper ores in the Padang Highlands'. Old report on survey of relatively widespread copper mineralization in Batipo- Kotta's area of Barisan Range (Timboelon, etc.). No maps)

Indrajat, B., I. Bruce, H. Hardian, S. Prabowo & M.M. Sinaga (2009)- The geology and mineralization of the sedex and MVT deposits of the Dairi District, North Sumatra, Indonesia. Geologi Ekonomi Indonesia, 6, 1, p. 22-36.
(Sedimentary exhalative style mineralisation in Permo-Carboniferous Tapanuli Gp of Sopokomil dome of Dairi Regency)

Irwansyah, Panuju, D. Kurniadi & Y. Helmi (2017)- Paleogene bioevents in the Pematang Group, Central Sumatera Basin, Rokan Block Area, Riau. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 6p.
(M Eocene- Oligocene palynology of Pematang Gp of C Sumatra. Pematang Gp not older than Proxapertites operculatus zone to not younger than Meyeripollis naharkotensis subzone)

Jaxybulatov, K., N.M. Shapiro, I. Koulakov, A. Mordret, M. Landes & C. Sens-Schonfelder (2014)- A large magmatic sill complex beneath the Toba caldera. Science 346, 6209, p. 617-619.
(Size and level of maturity of large volcanic reservoir estimated from radial seismic anisotropy (ambient-noise tomography) below Toba caldera, N Sumatra. Many partially molten sills present in the crust below 7 km)

Johnson, C.C., W.J. McCourt & Suganda (1993)- A report on the geochemistry of stream sediment samples and simplified geology of the Palembang Quadrangle (1033). Direct. Mineral Resources/ British Geol. Survey, Bandung, Spec. Publ. 56-A, p. 1-32.
(No known metalliferous occurrences in Palembang Quadrangle, S Sumatra)

Koulakov, I., E. Kasatkina, N. Shapiro, C. Jaupart, A. Vasilevsky, S. El Khrepy, N. Al-Arifi & S. Smirnov (2016)- The feeder system of the Toba supervolcano from the slab to the shallow reservoir. Nature Communications 7, 12228, p. 1-12.
(online at: www.nature.com/ncomms/2016/160719/ncomms12228/pdf/ncomms12228.pdf)
(Toba Caldera site of several recent, large explosive eruptions, including world's largest Pleistocene eruption 74,000 years ago. Major cause may be subduction of fluid-rich Investigator Fracture Zone under continental crust of Sumatra and possible tear of slab. Seismic tomography model shows multi-level plumbing system. Large amounts of volatiles originate in subducting slab at of ~150 km depth, migrate up and cause melting in mantle wedge. Volatile-rich basic magmas accumulate at base of crust in a ~50,000 km3 reservoir. Overheated volatiles continue ascending through crust, cause melting of upper crust rocks, leading to shallow crustal reservoir responsible for supereruptions)

Kusnanto, B. & S. Hughes (2014)- Geology and mineralization of Beutong copper deposit, Nagan Raya, Aceh. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 245-269.
(Beutong porphyry copper deposit ~60 km NE of Meulaboh, Aceh. Two mineralized Cu-Mo-Au porphyry centers in E Pliocene (~4.2 – 4.6 Ma) Beutong Intrusive Complex, into Jurassic-Cretaceous Woyla Gp, which includes NW-SE-trending dismembered ophiolite slivers. Overprinted by high sulphidation epithermal event)

Lubis, H., T. Situmorang, A.M. Harsono & S. Digdowiroko (2000)- Sedex: a new type explortion target for lead and zinc in Indonesia. Proc. 29th Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 2, p. 121-140.
(Review of sedimentary-exhalative lead-zinc deposits. With example from Sopokomil in Permo-Carboniferous Tapanuli Gp in N Sumatra, with up to 8m thick massive sulphides over ~3km)

Lyu, X.M., L. Yang, R.H. Wang, W.H. Guo, Q.F. Han & Z.C. Li (2016)- A case study on multiple stratigraphic reservoirs related with weathered granite buried-hill. In: 78th EAGE Conf. Exh., Vienna 2016, Tu P5 01, 5p.

(Betara gas field complex in granite buried-hill at N margin of S Sumatra basin, with gas column height 280 m and area of 80 km2. Basement lithology phyllite, granite and metaquartzite. Reservoir facies in 40-50m thick granitic weathered rind (porosity 12-21%), leached fracture zones in granite and in onlapping/ overlying Eocene -Oligocene alluvial fans. Three groups of faults: NNW trending reactivated basement faults, NE normal faults and NW reverse faults)

Mark, D.F., P.R. Renne, R. Dymock, V.C. Smith, J.I. Simon, L.E. Morgan, R.A. Staff & B.S. Ellis (2017)- High-precision 40Ar/39Ar dating of Pleistocene tuffs and temporal anchoring of the Matuyama-Brunhes boundary. Quaternary Geochronology 39, p. 1-23.
(online at: www.sciencedirect.com/science/article/pii/S1871101417300055)
(New 40Ar/39Ar ages for tuffs from Toba volcano on Sumatra in core from ODP Site 758 in Indian Ocean. Tephra layers geochemically correlated to Young Toba Tuff (Ash A; 73.7 ± 0.3 ka) and Middle Toba Tuff (502 ± 0.7 ka). Ash units D (785.6 ± 0.7 ka) and E (792.4 ± 0.5) (tentatively correlated to 'Old Toba Tuff'). Ages and depth model used here to estimate ages for Matuyama-Brunhes boundary (~784 ka) and Australasian tektites layer (peak 8 cm below Ash D; ~786 ± 2 ka))

Matysova, P., M. Booi, M.C. Crow, F. Hasibuan, A.P. Perdono, I.M. Van Waveren & S.K. Donovan (2018)- Burial and preservation of a fossil forest on an early Permian (Asselian) volcano (Merangin River, Sumatra, Indonesia). Geological J., 19p. *(in press)*
(E Permian (Asselian) Mengkarang Fm of W Jambi Province preserves abundant evidence of E Permian forest, which grew at foot of active volcano, where pyroclastic flows often made way and destroyed vegetation and where epiclastic reworked pyroclastics rapidly entombed vegetation. In situ Agathoxylon close enough to volcanic slope to be buried rapidly, but shallow enough to avoid recrystallization)

Milch, L. (1899)- Ueber Gesteine von der Battak-Hochflache (Central Sumatra). Zeitschrift Deutschen Geol. Gesellschaft, Berlin, 51, p. 62-74.
(online at: https://www.biodiversitylibrary.org/item/148115#page/76/mode/1up)
('On rocks from the Batak Highlands (Central Sumatra)'. Petrography of volcanic-igneous and metamorphic rocks of the Batak Highlands, collected by Volz (liparite, dacite, andesites, tuff, granite-gneiss, biotite-gneiss))

Milsom, J. (2016)- The separated twins: Sumatra and Myanmar in a dynamic world. In: Development of the Asian Tethyan Realm: genesis, process and outcomes, 5th Int. Symposium Int. Geoscience Program (IGCP) Project 589, Yangon, p. 42. *(Abstract only)*
(online at: http://igcp589.cags.ac.cn/5th%20Symposium/Abstract%20Volume.pdf)
(For much of geological history Sumatra and Myanmar occupied adjacent positions at active southern margin of Asian continent. Impact of India on margin rotated them by different amounts and opened gap that is now Andaman Sea. Continuity between Sumatra forearc and Rakhine Yoma via Andaman-Nicobar ridge. Elements of subduction-related tectonics can still be observed in Myanmar despite its present orientation. In Sumatra significant hydrocarbons are produced only N and E of volcanic line; in Myanmar only to its W)

Monecke, K., W. Finger, D. Klarer, W. Kongko, B.G. McAdoo, A.L. Moore & S.U. Sudrajat (2008)- A 1,000-year sediment record of tsunami recurrence in northern Sumatra. Nature 455, p. 1232-1234.
(2004 tsunami in N Aceh deposited sand sheet up to 1.8 km inland on marshy beach ridge plain. Sediment cores from coastal marshes with two older similar extensive sand sheets, deposited soon after AD 1290-1400 and AD 780-990, probably from earlier tsunamis. Additional sand sheet of limited extent may correlate with smaller tsunami of AD 1907)

Mulyaningsih, S. (2014)- Vulkanisme Pratersier batuan gunung api Kelompok Woyla di Kecamatan Beutong dan Darul Makmue, Kabupaten Nagan Raya, Provinsi Nangroe Aceh Darussalam. Majalah Geol. Indonesia 29, 3, p. 183-198.
(Pre-Tertiary volcanism of the volcanic rocks of the Woyla Group in the Beutong and Darul Makmue sub-regency, Nagan Raya Regency, Nanggroe Aceh Darussalam'. Woyla Gp with intermediate volcanic rocks, metamorphic rocks and granodiorite intrusions. Metamorphic rocks thought to be alterations of volcanism)

Munasri, M.M. Mukti, H. Permana & A.M. Putra (2015)- Jejak subduksi Mesozoikum di Komplek Garba, Sumatra bagian Selatan berdasarkan fosil radiolaria dan data geokimia. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I63-I72.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf
('Traces of Mesozoic subduction in the Garba Complex, S Sumatra, from radiolarian fossils and geochemical analysis'. In S Sumatra trace of Mesozoic subduction complex(es) exposed in Gumai, Garba and Gunung Kasih (Lampung). In SE Garba Mts subduction complex rocks from continental margin and from oceanic plates. Presence of island arc basalts and radiolaria of possible Triassic age)

Natawidjaja, D.H. (2018)- Updating active fault maps and slip rates along the Sumatran Fault Zone, Indonesia. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conf. Series, Earth Environm. Science 118, 012001, p. 1-11.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012001/pdf)
(Latest geological and GPS studies suggest slip rates along Sumatran Fault Zone ~15 mm/yr. Total amount of extension in the Sunda-strait marine grabens ~18.7 km, almost identical with largest geomorphic offset along SFZ. Sumatran fore-arc moving N along SFZ like rigid block instead of being stretched)

Natawidjaja, D.H., K. Bradley, M.R. Daryono, S. Aribowo & J. Herrin (2017)- Late Quaternary eruption of the Ranau Caldera and new geological slip rates of the Sumatran Fault Zone in Southern Sumatra, Indonesia. Geoscience Letters (AOGS) 4, 21, p. 1-15.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-017-0087-2)
(Paleosols buried under Ranau Tuff constrain large caldera-forming eruption to ~33,830–33,450 yrs BP. In N Sumatra lateral displacement of river channels incised into Ranau Tuff show right-lateral channel offsets of ~350 ± 50m (minimum slip rate 10.4 ± 1.5 mm/yr). S of Suoh pull-apart depression. In SW Sumatra West Semangko segment offsets Semangko River by 230 ± 60m, (slip rate of 6.8 ± 1.8 mm/yr))

Natawidjaja, D.H., L. Handayani & C. Widiwijayantani (1994)- Proses subduksi miring pengaruhnya terhadap variasi slip-rate sesar Sumatra serta deformasi pada busur depan: pendekatan model kuantitatif tektonik dan elemen hingga. Proc. 23rd Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 1, p. 413-432.
(The oblique subduction process and its effects on slip-rate variation of the Sumatra fault and deformation of the forearc: quantitative tectonic model and finite element approach')

Permana, H., Munasri, S. Aribowo & M.M. Mukti (2016)- Petrologi batuan dasar Kompleks Gunungkasih, Tanjungkarang, Lampung Selatan. In: R. Delinom et al. (eds.) Pros. Geotek Expo 2016, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 623-636.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2017/10/05/prosiding-2016/)
('Petrology of basement rocks of the Gunungkasih Complex, Tanjungkarang, South Lampung'. Pretertiary Gunungkasih complex rocks in Lampung greenschist-facies metamorphics (derived from volcanic arc or oceanic crust rocks; Sikuleh-Sekampung arc?). Basement rocks of Ratai Bay mica schist, chlorite schist and quartzite (meta-sediments; part of Woyla Accretionary Complex?))

Permana, R., B. Sutopo, Y.P. Simanjuntak, R. Pitaloka & E. Sukmawan (2014)- High sulfidation epithermal Au-Cu and porphyry Cu-Au mineralization in Bujang prospect, Batangasai, Jambi Province, Indonesia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 281-290.

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/289/260)
('Morphotectonics and Sumatran fault reactivation in Padangpanjang, West Sumatra'. Remote sensing study)

Poedjoprajitno, S. (2008)- Morfostratigrafi tuf ignimbrit Maninjau di Ngarai Sianok, Dusun Belakang Balok-Bukittinggi, Sumatera Barat. J. Sumber Daya Geologi 18, 3, p. 171-184.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/264/244)

('Morphostratigraphy of the Maninjau ignimbrite tuff in Sianok Gorge, Belakang Balok village, Bukittinggi, West Sumatera'. Ignimbrite plateau of Sianok Valley produced by two periods of Maninjau volcanic eruptions, separated by fluvio-volcanic sands and conglomerates. Pyroclastic deposits faulted, forming terrace morphology. Sianok Valley formed by reactivation of basement faults)

Prasetyono, B., H. Irdhan, P. Ibnu, M. Farmer & D. den Boer (2014)- Review of geology and mineral resources at the Tembang Deposit, Sumatra, Indonesia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 271-279.
(Tembang low-sulphidation epithermal Au-Ag vein system in Barisan Mts, 130km NNE of Bengkulu, S Sumatra. Hosted in volcanics of E Miocene Hulusimpang Fm ('Old andesites') and M Miocene andesitic intrusions. Age of mineralization assumed to be similar to known epithermal Au-Ag deposits in S Sumatra and W Java. Near Rawas open pit mine, operational from 1997-2000)

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(online at: https://repository.ugm.ac.id/273463/)
(Sumatran Fault zone 1900 km long NW-SE trending transcurrent fault. 19 segments from Aceh to Sunda Strait with stepoves with pull-apart basin. CCW rotation of Sundaland in M Miocene triggered activation of fault in right-handed kinematics, facilitated by pre-existing basement grain (obduction of Woyla nappe))

Putra, A.M. & Munasri (2016)- Characteristics of Radiolaria and its bearing rocks in the Garba mountains, South Sumatra. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 576-578.
(Massive chert of Situlanglang Mb of Garba Fm in Garba Mts with poor-moderate preserved radiolaria, low diversity and abundance. Presence of Triassocampe suggests Triassic age (older than supposed Jurassic-Cretaceous age of Woyla Group)

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('Characteristics of the 1883 Krakatau tsunami deposits in the Tarahan area, Lampung'. Tsunami deposit of 1883 Krakatau volcano eruption off Lampung Bay is f-c sand layer (10-30cm thick?) with pumice and volcanic ash. Shallow marine benthic foraminifera and molluscs show tsunami waves erode sea floor sediments down to 30-40m depth. Four fining upward patterns indicate at least four tsunami waves inundated study area.

Rampino, M.R. & S. Self (1993)- Climate- volcanism feedback and the Toba eruption of ~74000 years ago. Quaternary Research 40, p. 269-280.
(Toba eruption (~74,000 yrs ago) during δ18O Stage 5a-4 transition period of rapid ice growth and falling global sea level, which may have been a factor in creating stresses that triggered volcanic event. Stratospheric dust and sulfuric acid aerosol clouds may have created brief cooling ('volcanic winter'), with N Hemisphere surface T decreases of ~3°-5°C. Summer T decreases of >10°C at high N latitudes adjacent to regions already covered by snow may have increased snow/ sea-ice extent, accelerating cooling already in progress)

Reid, M.R. & J.A. Vazquez (2017)- Fitful and protracted magma assembly leading to a giant eruption, Youngest Toba Tuff, Indonesia. Geochem. Geophys. Geosystems 18, 1, p. 156-177.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2016GC006641/epdf)
(Eruption of 74 ka Youngest Toba Tuff of N Sumatra produced 2800 km3 of ignimbrite and coignimbrite ashfall. Relatively many zircons nucleated before earlier eruption at 501 ka, but most zircons yielded interior dates 100-300 ka thereafter. Zircon growth likely episodic over protracted time intervals of >100- >500 ka. Repeated

magma recharge may have contributed to development of compositional zoning in YTT, but perturbations to magma reservoir over >400 ka did not lead to eruption until 74 ka)

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(online at: http://www.tj.kyushu-u.ac.jp/leading/pdf/06-2017Seminar-Proceedings_P23.pdf)
(Dairi sediment-hosted Zn-Pb±Ag deposit along E limb of Sopokomil dome, ~290km SW of Medan. Orebodies hosted by metasediments of Kluet Fm of Sibumasu Block. Minerals sphalerite, galena, chalcopyrite, arsenopyrite, etc.)

Robock, A., C.M. Ammann, L. Oman, D. Shindell, S. Levis & G. Stenchikov (2009)- Did the Toba volcanic eruption of ~74k BP produce widespread glaciation? J. Geophysical Research 114, D10107, p. 1-9.
(online at: https://pubs.giss.nasa.gov/docs/2009/2009_Robock_ro09900j.pdf)
(Climate simulation model of 'volcanic winter' following supervolcano eruption of size of Toba suggests devastating consequences for humanity and global ecosystems)

Rolker, C.M. (1891)- The alluvial tin deposits of Siak, Sumatra. Trans. American Inst. Mining Engineers 20, New York, p. 50-84.
(Old review of alluvial tin mining operations in headwaters of Siak (and Rokan and Kampar) rivers near Pakanbaru, in east part of C Sumatra. Worked mainly by Chinese contract miners (tin deposits known to VOC agents since 1670's; Barnard 2013))

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/282/253)
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Setiawan, I. (2017)- Geology and REE geochemistry in granitoids at western part of North Sumatra, Indonesia. D.Engin. Thesis Akita University, Fukuoka, p. 1-208.
(online at: https://air.repo.nii.ac.jp/?action=repository_uri&item_id=3061&file_id...2)
(Geological, geochemical and isotopic study on granitoids at Sibolga, Panyabungan, Muarasipongi and Kotanopan, western N Sumatra. Metaluminous and I-type granitoids of Sibolga produced by Paleo-Tethys subduction under amalgamated W Sumatra- E Malaya- Indochina blocks in E Permian, followed possibly by tectonic translation which resulted in peraluminous, ilmenite-series and A-type granitoids in Sibuluhan Sihaporas, Sibolga Julu, Sarudik and Tarutung. Peraluminous, ilmenite-series and S-type granitoids at Panyabungan, and I-type granitoids from Muara Sipongi and Kotanopan formed due to E Triassic- E Jurassic subduction of Meso-Tethys beneath amalgamated W Sumatra and Sibumasu blocks)

Setiawan, I., R. Takahashi & A. Imai (2017)- Petrochemistry of granitoids in Sibolga and its surrounding areas, North Sumatra, Indonesia. In: 5th Asia Africa Mineral Resources Conf., Quezon City, Philippines 2015, Resource Geology 67, 3, p. 254-278.
(Granitoids in Sibolga area, N Sumatra, with characteristics of A- and I-type ilmenite series. REE enriched in syenites from Sibolga Julu, Sarudik, Tarutung and Sibuluhan Sihaporas: highly-differentiated granitoids formed within plate settings. In contrast, the ΣREE content of hornblende-bearing granitoids formed in volcanic arc settings is low)

Stegmann, H. (1909)- Die jungen Ergussgesteine der Bataklander (Sumatra). Neues Jahrbuch Mineral. Geol. Palaont., Beilage Band 27, p. 399-459.
('The young volcanic rocks of the Batak Lands (Sumatra'. Petrographic descriptions from Lake Toba area. From Greifswald University Inaugural-Dissertation)

Storey, M., R.G. Roberts & M Saidin (2012)- Astronomically calibrated 40Ar/39Ar age for the Toba supereruption and global synchronization of late Quaternary records. Proc. National Academy Sciences USA 109, 46, p. 18684-18688.
(online at: www.pnas.org/content/109/46/18684.full.pdf)
(Toba supereruption in N Sumatra largest Quaternary terrestrial volcanic event, with ash and sulfate aerosol deposits in both hemispheres. Astronomically calibrated 40Ar/39Ar age of 73.88 ± 0.32 ka for sanidine crystals from up to 5m thick Toba ash deposits in Lenggong Valley, Malaysia, 6 km from archeological site with stone artifacts buried by ash. If made by Homo sapiens, age indicates modern humans reached SE Asia by ~74 ka. Timing of eruption tied to peak in sulfate concentration in Greenland ice cores in middle of cold interval between Dansgaard-Oeschger events 20 and 19. Peak is followed by ~10 °C drop in Greenland surface temperature over ~150 yr, revealing possible climatic impact of eruption)

Subandrio, A.S. (2012)- Evolusi magmatik granitoid Tipe-A da metalogenesis bijih Molibdenum dan Uranium di kompleks granitoid Sibolga- Sumatra Utara. Doct. Thesis Padjadjaran University (UNPAD), Bandung, p. 1-230. *(Unpublished)*
('Magmatic evolution and metallogenesis of molybdenum and uranium ore in the Sibolga Type A granitoid complex, North Sumatra'. Late Paleozoic- E Mesozoic granites in SE Asia, incl. Bangka and Belitung islands marked generally by S-type granitoid emplacement with regional tin mineralization. Sibolga Granitoid Complex of N Sumatra shows different, A-type granitoid. Biotite granites most common. Sibolga granitoid intruded into Kluet Fm. K/Ar ages of ~219 Ma and 211 Ma by Rb/Sr on biotite (Late Triassic). A-type granitoid of Sibolga probably associated with anorogenic or rift related environment. Molybdenum anomalies imply magmas derived by partial melting of Late-Paleozoic lower-crustal rocks)

Suwarna, N., Suharsono & K. Sutisna (1999)- Stratigraphy, sedimentology and provenance analysis of the Jurassic-Cretaceous Asai-Rawas Group, Southern Sumatera. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 36-39.
(Thick (>2000m?), deformed Jurassic Cretaceous sediments at E flank of Barisan Range, at S Sumatra (Jambi) Basin margin, intruded by Cretaceous Arai- Angai granite. M-L Jurassic Asai Fm marine 'flysch-type' meta-sandstones and phyllite with minor limestone, rel. quartz rich, of continental provenance. Overlying Late Jurassic- E Cretaceous more variable, of recycled orogen and arc provenance. Paleomagnetic study suggests paleolatitude of 32°S. To N in tectonic? contact with Permian Mengkareng Gp)

Syafrie, I., E.T. Yuningsih & H. Matsueda (2015)- Geochemistry study of granitoid basement rock in Jambi Sub basin, South Sumatera, Indonesia, based on JSB-3, JSB-4 and JSB-6 wells data. In: ICG 2015, 2nd Int. Conf. and 1st Joint Conf. Faculty of Geology Universitas Padjaran and University of Malaysia Sabah, p. 305-311.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/Geochemistry-study-of-Granitoid-Basement-Rock-in-Jambi-Sub-Basin.pdf)
(Mesozoic? granitoid basement in Jambi sub basin is intermediate-acid, calc-alkaline, medium- high K, metalluminous (subduction at active continental margin). Granitoid basement rock of JSB-4 and JSB-6 shows magnetite series and I type (late orogenic). Mesozoic granitoid probably extension of Thailand and Burma granite province (see also Yuningsih 2006))

Van Waveren, I.M., M. Booi, M.J. Crow, F. Hasibuan, J.H.A .Konijnenburg-van Cittert, A.P. Perdono & S.K. Donovan (2018)- Depositional settings and changing composition of the Jambi palaeoflora within the Mengkarang Formation (Sumatra, Indonesia). Geological Journal, 22p. *(in press)*
(Merangin River section in W Sumatra exposes Lower Permian (late Asselian) Mengkarang Fm. Section ~400m thick, composed of 8 fining-upward of volcanic tuffs and volcaniclastic sedimentary rocks, incl. pyroclastic flows, overlain by their reworked alluvial products. Base of section marine, with common brachiopods. Zircon dating indicates duration of ~630,000 years (296.77 ± 0.04 near base to 296.14 ± 0.09 Ma near top). Change in paleobotanical composition from dominated by Cordaites, ferns or club mosses, to seed fern-dominant. Similar paleofloral trends observed in other areas of Paleotethys.)

Wardhani, R., E. Wiwik & A. Idrus (2017)- Granitoid petrology, geochemistry and occurrences of hydrothermal mineralization in Mehanggin area, Muaradua district, South Sumatra Province, Indonesia. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 4p.
(Lower Cretaceous(?) granitoid in Garba Mts near Mehanggin, Muaradua area, S Sumatra, classified as S-type, high-K, calk-alkaline (island arc or active continental margin))

Wheeler, R.S. (1999)- Alteration and epithermal zeolite-bearing quartz vein mineralisation at the Way Linggo Au-Ag deposit, southwest Sumatra, Indonesia. M.Sc Thesis, University of Auckland, p. *(Unpublished)*

Wheeler, R.S., P.R.L. Brown & K.A. Rodgers (2001)- Iron-rich and iron-poor prehnites from the Way Linggo epithermal Au-Ag deposit, southwest Sumatra, and the Heber geothermal field, California. Mineralogical Magazine 65, 3, p. 397-406.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1026.3514&rep=rep1&type=pdf)
(WayLinggo low sulphidation epithermal deposit of S Sumatra series of zeolite-bearing quartz veins emplaced along NW-NNW trending subsidiarystructures of Sumatra Fault Zone, in Miocene andesitic- dacitic pyroclastic rocks, intruded by porphyritic dacitic stock and minor andesite dykes. Prehnites formed below 220°C)

Widi, B.N. & Sukaesih (2016)- Mineralisasi besi tipe skarn di daerah Bukit Gadang Lange, Desa Tarung Tarung, Kecamatan Rao, Kabupaten Pasaman, Provinsi Sumatera Barat. Bul. Sumber Daya Geologi 11, 3, p. 144-156.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Skarn-type iron mineralization in Bukit Gadang Lange, Tarung Tarung Village, Rao Sub-district, Pasaman District, West Sumatra'. Magnetite-hematite associated with garnet in contact zone between Tertiary granodiorite intrusion and Permian Silungkang Fm marble/limestone at Bukit Gadang Lange, Barisan Mts.)

Wong, H., I. Taylor, M. Purwanto & H. Setyawan (2011)- Geology and discovery history of the Miwah gold deposit, Aceh, Sumatra, Indonesia. In: Proc. NewGenGold 2011 Conf., Case histories of discovery, Perth, p. 191-199.
(Miwah high sulphidation epithermal gold system in Aceh)

Yuningsih, E.T. (2006)- Mineralogi granitoid Bukit Pagias, Cekungan Ombilin, Sumatera Barat. Bull. Scientific Contr. (UNPAD) 4, 1, p. 67-77.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8116/3692)
('Mineralogy of the Bukit Pagias granitoid, Ombilin Basin, West Sumatra'. Petrography of (Jurassic?) granite)

Yuningsih, E.T. (2006)- Analisis kimia batuan basemen granitoid de sub cekungan Jambi, Sumatera Selatan berdasarkan data dari sumur JSB-3, JSB-4 and JSB-6. Bull. Scientific Contr. (UNPAD) 4, 2, p. 106-117.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8120/3696)
('Chemical analysis of granitoid basement rock of the Jambi sub basin, South Sumatra, based on data from wells JSB-3, JSB-4 and JSB-6'. Pre-Tertiary granitoid basement rocks in wells JSB-3 (~1990m) intermediate-acid magma, calc-alkaline, medium-high K, metalluminous (subduction at active continental margin). Granitoids at JSB-4 (2654m) and JSB-6 (2342m) magnetite series and I type, probably extension of Thailand-Burma granite province)

Zwierzycki, J. (1920)- Zijn de Indische petroleumterreinen, in het bijzonder die op Sumatra, peneplains of abrasievlakken? De Mijningenieur 1, 2, p. 3-5.
(online at: https://babel.hathitrust.org/cgi/pt?id=coo.31924081565537;view=1up;seq=25)
('Are the Indies petroleum-bearing areas, in particular those on Sumatra, peneplains or abrasion plains?' Landscape of petroleum terrains in N and S Sumatra and Java routinely viewed as peneplains on gently folded Tertiary sediments. Age of folding probably Pleistocene, not leaving much time for peneplanization by complete fluvial erosion cycle; wave abrasion on coastal plains probably faster, and more likely mechanism)

II.2. Sumatra - Cenozoic Basins, Stratigraphy, Hydrocarbons, Coal (109)

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(online at: http://jurnal.unpad.ac.id/bsc/article/view/8252/3800)

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(Discussion of shifting of Baturaja limestone buildup development towards SE margin of Muara Enim Deep/ Kuang High during Early Miocene (not Upper Miocene suggested in title; see also Pannetier 1994; JTvG))

Agustin, M.V., M.I. Novian, A. Darmawan & T. Agung (2017)- Sekuen stratigrafi sub-cekungan Palembang Selatan berdasarkan data pemboran pada sumur 'SSB'. Kabupaten Musi Waras, Provinsi Sumatera Selatan. Proc. 10th Seminar Nasional Kebumian, Dept. Teknik Geologi, Universitas Gadjah Mada (UGM), Yogyakarta, PSP-12, p. 921-934.
(online at: https://repository.ugm.ac.id/274230/1/PSP-12.pdf)
('Sequence stratigraphy of the South Palembang sub-basin stratigraphy based on drilling data of well 'SSB', Musi Waras District, South Sumatra Province'. Four sequences identified in Talang Akar- Air Benakat Fms interval (Early Miocene) in unspecified well 'SSB' in Pertamina block, S Sumatra)

Alaydrus, J., S. Nurida & H. Mohede (2018)- Optimizing well placement strategy in a giant fractured basement gas reservoir through integrated subsurface analysis. A case study of the Suban Field. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-110-G, 23p.
(Suban gas field in Corridor Block, S Sumatra, world-class fractured reservoir with commingled production from fractured Tertiary (carbonate and sandstone) and Carboniferous- Cretaceous igneous and meta-sedimentary basement rocks. Fractures flow hydrocarbon down to 250-450m TVD below top basement. New wells to be placed: (a) high on fractured structure; (b) close to faults; (c) where brittle reservoir facies exist)

Alfian & P. Manik (1993)- Penyebaran dan proses pembentukkan CO2 serta kaitannya dengan nilai kekonomian prospek di Cekungan Sumatera Utara. Proc. 22nd Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 2, p. 803-813.
('Distribution and process of CO2 formation and its relation with the economic value of prospects in the North Sumatera Basin'. Gases in wells from the N Sumatra basin locally high in CO2 (1-80%). CO2 probably originated from thermal breakdown of carbonate rocks, both in Pretertiary basement and Eocene(?) Tampur Fm dolomites). With map of CO2% distribution)

Aryanto, N.C.D. (2015)- Penentuan sistem petroleum di subcekungan Palembang Selatan dan Utara, Cekungan Sumatra Selatan berdasarkan analisis geokimia dan pemodelan cekungan. Ph.D. Dissertation Inst. Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Determination of the petroleum system in S and N Palembang subbasins, South Sumatra Basin, based on geochemistry analysis and basin modeling')

Ariyanto, P. & I.Y. Syarifuddin (2018)- New insights into the structural devlopment of the Block A area, North Sumatra basin: constraints from subsidence analysis and palinspatic reconstruction. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-587-G, 22p.
(Southern N Sumatra basin in E-M Miocene not just post-rift subsidence, but flexural basin (foredeep) in front of Barisan Mts thrust front after ~16-14 Ma)

Asmina, A., E. Sutriyono & E.W.D. Hastuti (2017)- Gas content appraisal of shallow coal seams in the South Palembang Basin of South Sumatra. Int. J. Geomate 12, 33, p. 45-52.
(online at: www.geomatejournal.com/sites/default/files/articles/45-52-2519-Edy-May%202017-33-g1.pdf)

(Gas content of Late Miocene low-rank coal seams in S Palembang basin from well log and core analysis varies from 4.1-5.3 m3/t, increasing with deeper burial. Total estimated gas-in-place ~3,019 MMm3. Onset of biogenic gas generation may be before Plio-Pleistocene inversion)

Aswan, M. Abdurrachman, B.S. Fitriana, M.F. Mustofa, W.D. Santoso, A. Rudyawan, W.D. Rahayu et al. (2017)- Paleoenvironmental study of Miocene sediments from JTB-1 and NRM-1 wells, in West Ogan Komering Block, Meraksa Area, South Sumatra Basin. In: 2nd Int. Conf. Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conf. Series, Earth Environm. Science, 71, 012033, p. 1-9.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012033/pdf)
(Comparison of E-M Miocene marine paleoenvironments in two wells in SE part of S Sumatra basin, based on benthic foraminifera)

Aswan, S. Graha, D. Suryadi, T. Wiguna & S.I. Qivayanti (2016)- Oligocene cyclic sedimentation deduced from taphonomic analysis of molluscs in lacustrine deposits of the Pematang Group, Pesada Well, Central Sumatra Basin. J. Mathematical and Fundamental Sciences (ITB) 48, 1, p. 66-81.
(online at: http://journals.itb.ac.id/index.php/jmfs/article/view/471/1155)
(Taphonomic analysis of gastropods used to interpret cyclicity in lacustrine Brown Shale. Four types of shell concentrations: (1) early transgressive deposits erosion surface at base, with abraded and broken shells; (2,3) late and maximum transgressive deposits with rel. common complete shells in life position; (3) early regressive deposits alternating shell-rich and shell-poor layers. Seven sedimentary cycles in Pesada well)

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(online at: www.iagi.or.id/fosi/files/2017/03/BS37-03032017.pdf)

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(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/470/335)
(Petrography of seams D and E of M-L Miocene coals from Air Laya mines. Deposited in upper delta plain environment with ombrotrophic peat type)

Barianto, D.H., F. Anggara, S. Husein, T.A. Pribadi & M. Ahmad (2017)- The advancement of Paleogene stratigraphy of South Sumatra Basin in Gumay Mountains. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
(Stratigraphy of volcanics-rich Paleogene in Gumai Mts area, S Sumatra, overlying Jurassic- Cretaceous volcanic arc basement complex. Kikim Tuffs and quartz-rich Lemat/ Lahat Fms sandstones. No age control)

Basundara, A.H., A. Mardianza, H. Purba, R.A. Tampubolon, S.A. Diria, D.R. Haryanto, H. Darman & J. Trivanty (2018)- A new insight of hydrocarbon potential in stratigraphic trap in the Keutupang Formation, North Sumatra Basin. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-590-G, 20p.
(On potential for hydrocarbons in stratigraphic traps in Late Miocene Lower Keutapang Fm sandstones from seismic amplitudes, and flat spots)

Brahmanthya, G.R., B. Syam, B.D. Safitri, M.N. Alamsyah, S. Husein & E. Widianto (2017)- Implication of tectonic inversion for the existence of hydrocarbons in fractured basement reservoirs: a case study from Jabung Block, South Sumatra Basin, Indonesia. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-177-G, 17p.
(In Jambi sub-basin NE Betara 1 well fractures in basement open and orientated WSW-ENE and good hydrocarbon reservoir (affected by both extensional and inversion tectonics). In NE Betara 2 closed fractures with NNE-SSW orientation)

Budiman, A. & Hendarsyah (2007)- Reservoir geology of fractured basement in Suban Barat-1 well - South Sumatra- Indonesia. Coord. Comm. Geosciences Programmes in SE Asia (CCOP), Seminar on fractured reservoir exploration & production, Hanoi 2007, p. *(Abstract only?)*

Budiyono & A. Maylana (2007)- Further development of the Kenali Asam field. Proc. Joint Conv. 32nd HAGI, 36th IAGI and 29th IATMI, Bali, p. 1675-1679.
(Kenali Asam field in Jambi sub-basin, S Sumatra, 1929 NIAM discovery on NNW-SSE anticline, 282 wells)

Cai, S., Y. Tang, X. Zhang & G. Hong (2014)- Fine description of delta front sand body in Miocene Intra-Gumai Formation of J Block in the Southern Sumatra Basin. J. Oil and Gas Technology, 2014, 12, p. 47-50.
(Eocene to Miocene strata in J Block of S Sumatra Basin divided into six sequences. Intra-Gumai Fm deltaic sands in highstand systems tract of SQ4. In the highstand system tract of SQ4,. Etc.)

Dahlan, Y.I., F. Utama, D. Yudhatama, Y. Yunus & E.M.I. Kusumah (2017)- New perspectives in regaining additional hydrocarbon from near-field prospects. A study case: Irin cluster. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 4p.
(On Irin cluster of small E Miocene Baturaja Lst buildup prospects on Musi Platform, S Sumatra basin. Irin 1 (2013) gas-bearing with 400' of limestone reservoir with up to 28% porosity. Baturaja carbonates six stages of development: oldest in SM-1 well in W part, youngest stage in SE part of Musi platform)

Dahlan, Y.I. & Y. Yunus (2016)- Future exploration in Musi area, South Sumatra: looking for new oil in an old area. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 30-TS-16, p. 1-9.
(S Sumatra mature basin, with only very small prospects remaining. In Musi Platform area clusters of small E Miocene Baturaja carbonate prospects still offer potential)

Du, Naizheng (1988)- On some silicified woods from the Quaternary of Indonesia. Proc. Kon. Nederl. Akademie Wetenschappen B 91, p. 339-361.
(Two specimens of silicified wood from Quaternary of S Sumatra identified as being similar to modern plants Shorea negrosensis (Dipterocarpaceae) and Lagerstroemia colletti (Lythraceae) and named as new species Shoreoxylon sumatraense and Lagerstroemioxylon benkoelense)

Fardiansyah, I., E. Finaldhi, S. Graha, M.I.S. Harris & A. Susianto (2017)- Early Miocene paleogeography of Central Sumatra Basin: impact on reservoir quality and distribution of the Upper Sihapas Group, Rokan Block. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-577-G, 19p.
(Updated E Miocene (17.5-22 Ma) depositional models of Bekasap and Bangko, Duri, Lower Telisa Fms in C Sumatra Basin. U Sihapas Gp deposited during marine transgression. Sediment source mainly Malayan Shield to NE, resulting in NE to SW depositional trend. Two major feeder systems controlled sedimentation in C Sumatra Basin, resulting in two major deltas in m-u Early Miocene (best reservoir quality))

Fathan, H.U., S.M. Tarigan, E. Sutriyono & A. Tarigan (2017)- The Neogene depositional history of Lemau and Bintunan Formations in Bengkulu Basin. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
(Facies study of Miocene- Pliocene clastic deposits in N Bengkulu Basin)

Fatimah (2016)- Studi awal potensi batubara Muaraenim untuk dikonversi menjadi bahan bakar cair berdasarkan karakter batubara. Bul. Sumber Daya Geologi 11, 3, p. 158-172.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Preliminary study of Muaraenim coal liquefaction potential based on coal characteristics'. Muara Enim coal of S Sumatra good potential to be converted into liquid fuel)

Fitriana, B.S., M.F. Mustofa & H.J. Sutrisno (2017)- BDA-1 well: fractured play discovery in the southern part of South Sumatra Basin. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-358-G, 12p.

(Bandar Agung (BDA)-1 exploration well drilled in 2014 in W of Ogan Komering block, S Palembang sub-basin, S Sumatra Basin, tested thermogenic gas (3.4 MMSCFD) and condensate (73.3 BCPD of 54.7° API) from fractured basement. Well penetrated >100m of fractured basalt with minor granodiorite and marble, underlain by ~25m of non-fractured phyllite. Basement part of Mutus Assemblage)

Gani, R.M.G. & Y. Firmansyah (2017)- Analisis skema pengendapan Formasi Pematang di sub-cekungan Aman Utara, cekungan Sumatera Tengah sebagai batuan induk. Bull. Scientific Contr. (UNPAD) 15, 1, p. 9-15.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/11773/pdf)
('Analysis of the deposition of the Pematang Formation in the North Aman sub-basin, Central Sumatra basin as the source rock'. Brown Shale Fm and Lower Red Bed Formation of Pematang Gp good source rock potential)

Habrianta, L., G. Matthew, F. Fakhrurozi, D. Auliansyah & I.P. Andhika (2018)- A semi-regional play analysis of the Ombilin basin to understand the tectono-stratigrapic framework and identification of potential exploration opportunities. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-482-G, 22p.
(Review of Ombilin intermontane rift basin (half-graben) in W Sumatra)

Hadiana, M. (2014)- Mekanisme rifting Paleogen Cekungan Sumatra Tengah. Ph.D. Thesis Inst. Teknologi Bandung (ITB), p.
('Paleogene rifting mechanism of the Central Sumatra Basin'. C Sumatra Basin Paleogene rifting result of dextral strike slip, mainly controlled by pre-existing basement faults. Modeling suggest synrift extension of 7.5% at end of Lower Red Bed Fm deposition, 13% for Brown Shale Fm and 15% for Upper Red Bed Fm)

Haris, A., H.A. Almunawwar, A. Riyanto & A. Bachtiar (2017)- Shale hydrocarbon potential of Brown Shale, Central Sumatera basin based on seismic and well data analysis. In: Southeast Asian Conference on Geophysics, Bali 2016, IOP Conf. Series, Earth Environm. Science 62, 012018, 6p.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012018/pdf)

Haris, A., N. Nastria, D. Soebandrio & A. Riyanto (2017)- Shale gas characterization based on geochemical and geophysical analysis: case study of Brown shale, Pematang formation, Central Sumatra Basin. In: Int. Symp. Current Progress in Mathematics and Sciences 2016 (ISCPMS 2016), Depok, AIP Conf. Proceedings 1862, 030167,4 p. *(Extended Abstract)*
(online at: http://aip.scitation.org/doi/pdf/10.1063/1.4991271)
(Eocene M Pematang Brown Shale TOC from 0.15-2.71%, classified as poor-very good. Maturity level: vitrinite reflectance Ro = 0.58%)

Haris, A., B. Seno, A. Riyanto & A. Bachtiar (2017)- Integrated approach for characterizing unconventional reservoir shale hydrocarbon: case study of North Sumatra Basin. In: Southeast Asian Conference on Geophysics, Bali 2016, IOP Conf. Series, Earth Environm. Science 62, 012023, 6p.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012023/pdf)
(On geochemical, rock mechanic and geophysics to characterize and map unconventional reservoir shale hydrocarbon potential in Baong field. Fair to very good gas potential of Baong Fm shale, with Kerogen Type II, at depth of 1500m)

Hidayatillah, A.S., R.A. Tampubolon, T. Ozza, M.T. Arifin, R.M.A. Prasetio, T.A. Furqan & H. Darman (2017)- North Sumatra Basin: a new perspective in tectonic settings and Paleogene sedimentation. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-719-G, 18p.
(Literature, etc. compilation of N Sumatra basin)

Ibrahim, M.I. & D. Widhiyatna (2017)- Karakteristik rekahan batubara pada eksplorasi Gas Metana Batubara di Cekungan Ombilin, Provinsi Sumatera Barat. Bul. Sumber Daya Geologi 12, 1, p. 39-53.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Characteristic of coal fractures for Coalbed Methane gas exploration in the Ombilin Basin, W Sumatra'. Cleat distribution in five Eocene coal seams in 451m deep CBM well. Deeper coal seam lower permeability)

Indah, M.S., M. Natsir, F. Suwidiyanto, Suwarto, F. Bahesti & D. Kadar (2017)- Paleoenvironment dan evaluasi lateral distribusi perangkap stratigrafi reservoir batupasir Baoung dan batupasir Belumai pada korelasi fosil absolut integrasi 2D seismik regional, Cekungan Sumatera Utara. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 4p.
('Paleoenvironment and evaluation of lateral distribution of stratigraphic traps of Baong and Belumai sandstone reservoirs by fossil correlation integrated with regional 2D seismic, North Sumatra Basin'. Bio-sequence stratigraphic correlation study of M Miocene sandstones in N Sumatra basin)

Irzon, R. & S. Maryanto (2016)- Geokimia batugamping Formasi Gumai dan Formasi Baturaja di wilayah Muaradua, Ogan Komring Ulu Selatan, Provinsi Sumatera Selatan. J. Geologi Sumberdaya Mineral 17, 3, p. 125-138.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/11/4)
('Geochemistry of limestones from the Gumai and Baturaja Formations in the Muaradua area, south Ogan Komering Ulu, South Sumatra')

Johansen, S.J. & A. Djamaoeddin (2003)- Sequence stratigraphy of Bangko Field, Sihapas Group (Miocene), Central Sumatra Basin, Indonesia. AAPG Ann. Convention, Salt Lake City, AAPG Search and Discovery Art. 90013, 1p. *(Abstract only)*

Julikah, Sriwijaya, J.S. Hadimuljono, R. Ginanjar, A.B. Wicaksono, Jakson A. & M. Syaifudin (2016)- Shale oil and shale gas potential of Talang Akar and Lemat/ Lahat Formations in the Jambi sub-basin. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 20-TS-16, p. 1-19.
(On unconventional oil and gas potential of Late Eocene- E Miocene shales of Jambi Basin, S Sumatra)

Julikah, Sriwidjaya, Jonathan S. & Panuju (2015)- Hydrocarbon shale potential in Talang Akar and Lahat Formations on South and Central Palembang sub basin. Scientific Contr. Oil and Gas, Lemigas, Jakarta, 38, 3, p. 213-223.
(online at: www.lemigas.esdm.go.id/publikasi/read/scientific/1/)
(S Sumatra basin with potential of shale hydrocarbons in Talang Akar and Lemat/Lahat Fms. Generally early maturity of oil (Ro = 0.6%) at ~2000m depth, oil formation (Ro 0.7-0.9%) between 2200 -3100m and formation of gas (Ro values 0.9-1.2%) at 3100-3500m. P50 assessment of non-conventional oil-gas resources up to 4200 MMBOE)

Kasim, S.A. & J. Armstrong (2015)- Oil-oil correlation of the South Sumatra Basin reservoirs. J. Petroleum Gas Engineering 6, 5, p. 54-61.
(online at: www.academicjournals.org/journal/JPGE/article-full-text-pdf/E2428FD53192)
(4 groups of oil in S Sumatra Basin: (1) marine/lacustrine (low pristane/phytane), (2) terrestrially derived (high pristane/phytane ratio), (3) lacustrine oils with bimodal distribution of n-alkanes and (4) biodegraded oils. Oils distributed randomly and sourced from terrestrial TalangAkar and lacustrine Lemat/Lahat formations)

Kesumajana, A.H.P. (2009)- Pengaruh mekanisme pembentukan Cekungan tersier terhadap sejarah temperatur dan pembentukan hidrokarbon di Cekungan Sumatra Selatan. Dokt. Dissertation Inst. Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('The influence of the formation mechanism of a Tertiary Basin and temperature history and the formation of hydrocarbons in the South Sumatra Basin'. S Sumatra basin categorized as hot basin, with average of heat flow value of 108 mWm-2. Start of rifting phase in Late Oligocene (30-25 Ma) re-activating three patterns of old basement faults. Thermal modeling along 3 sections. Thermal model and gravity models indicate Moho depth at 15.6 - 19.5 km (thin crust). Heat flow increased at 15-5 Ma, with average of 117 mW/m2, corresponding with onset of Bukit Barisan volcanic activity. Early mature oil generation reached at 25.2 Ma, end of gas generation at 16 Ma. Top Oil window at 1433m depth)

Khiram, S.U., A.B. Samudra & A. Budianto (2014)- Biogenic gas exploration in Karangringin Area, South Sumatra Basin, Indonesia. Majalah Geologi Indonesia 29, 1, p. 85-99.

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(Same as Khiram et al. 2013)

Koswara, R., N. Suwarna & I. Syafri (2014)- Karakteristik dan lingkungan pengendapan batubara Formasi Muaraenim berdasarkan petrologi organik di daerah Darmo, Lawang Kidul, Sumatra Selatan. Majalah Geol. Indonesia 29, 3, p. 161-182.
('Characteristics and depositional environment of Muaraenim Formation coal based on organic petrology at Darmo area, Lawang Kidul, South Sumatra'. Petrography of Late Miocene Muara Enim Fm coal in Banko Tenga coalfield, S Sumatra basin. Mainly vitrinite, followed by inertinite and exinite. Vitrinite reflectance ~0.40-0.45% (sub-bituminous B-C rank). Depositional environment lower delta plain)

Kusdiantoro, F., D.H. Amijaya & J. Setyowiyoto (2018)- Basin modeling for genesis and migration pattern determination of oil and gas in Musi and surrounding area, South Sumatra Basin. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-69-G, 12p.
(Petroleum system modeling suggests expulsion in Benakat subbasin started at 13 Ma while in Pigi subbasin it started from 9.5 Ma. Four migration patterns in Musi High, three charged from Benakat and one charged from Pigi subbasin. Saung Naga subbasin on Musi Platform still immature until present day)

Lelono, E.B. (2004)- Paleogene sediment in South Sumatera - where has it gone. Lemigas Scientific Contr. 2004, 3, p. 29-37.

Lelono, E.B. (2009)- Pollen record of Early/ Middle Miocene boundary in the South Sumatra Basin. Lemigas Scientific Contr. 32, 2, p. 71-81.
(Early- Middle Miocene boundary (= boundaries of foram zones N8/ N9 and calcareous nannoplankton zones NN4/ NN5) in S Sumatra characterized by lowering of sea level (decrease in foraminiferal and calcareous nannoplankton assemblages) and climate change from wet during zone N8 to seasonal/dry climate around N8/ N9 boundary. Gradual changes to wetter climate through zone N9)

Lelono, E.B., C.A. Setyaningsih & L. Nugrahaningsih (2014)- Paleogene palynology of the Central Sumatera Basin. Lemigas Scientific Contr. Oil and Gas, Jakarta, 37, 2, p. 105-116.
(online at: www.lemigas.esdm.go.id/publikasi/read/scientific/1/)
(Pollen assemblage of Paleogene sediments in C Sumatra Basin less rich than in C Java, SE Kalimantan, S Sulawesi. Occurrences of spore Cicatricosisporites dorogensis and pollen Palmaepollenites kutchensis and Meyeripollis naharkotensis suggest most likely Oligocene age for Brown Shale and Upper Red Beds. Surprising absence of lacustrine fresh water algae Pediastrum and Bosedenia))

Manik, P. & Soedaldjo (1984)- Prediction of abnormal pressure based on seismic data. A case study of exploratory well drilling in Pertamina UEP I and UEP II work areas. Proc. 13th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, p. 507-532.

Moestopo H.S., E. Jacobs, H. Nur, M. Reinhold, Y. Pramudyo & K. Purwanto (2007)- Utilize geosteering in horizontal wells to maximize value in mature fields, Central Sumatra, Indonesia. In: Soc. Petrol. Engineers (SPE) Asia Pacific Oil and Gas Conf. Exhib., Jakarta, 11p.
(Horizontal wells drilled by Chevron in C Sumatra Basin, mainly in Bekasap and Menggala sandstone reservoirs of 1960's Petani and Bekasap oil fields)

Mulyana, B. (2005)- Tektonostratigrafi Cekungan Ombilin Sumatera Barat. Bull. Scientific Contr. (UNPAD) 3, 2, p. 92-102.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/7455/3416) (without figures)
('Tectonostratigraphy of the Ombilin basin, West Sumatra'. Ombilin Basin intramontane basin in Barisan Mts. Basement two parts: Mergui terrane (with Permian Silungkang Fm limestone) and Woyla terrane. Early Paleogene Ombilin Basin rifting in transtensional setting along Sitangkai and Silungkang faults)

Musu, J.T., B. Widarsono, A. Ruswandi, H. Sutantog & H. Purba (2015)- Determination of shale gas potential of North Sumatra Basin: an integration of geology, geochemistry, petrophysics and geophysics analysis. Scientific Contr. Oil and Gas, Lemigas, Jakarta, 38, 3, p. 193-212.
(online at: www.lemigas.esdm.go.id/publikasi/read/scientific/1/)
(In N Sumatra basin potential for shale play with gas sweet spots in Bampo, Belumai and Baong Fms. Total shale gas resource estimated at 48.4 TCF gas)

Nasution, F. & S. Nalendra (2017)- Characterization of coal quality based on ash content from M2 coal-seam group, Muara Enim Formation, South Sumatra Basin. J. Geoscience Engineering Environm. Technol. (JGEET) 2, 3, p. 203-209.
(Discussion of M-L Miocene coals of M2 horizon (Petai, Suban and Mangus coals) in Muara Enim Fm of Bukit Kendi coalfield, S Sumatra. Average ash content of Seam C is 6%, Seam B is 5%, and Seam A2 is 3.8%)

Natasia, N., I. Syafri, M.K. Alfadli & K. Arfiansyah (2016)- Stratigraphy seismic and sedimentation development of Middle Baong Sand, Aru Field, North Sumatera Basin. J. Geoscience Engineering Environm. Technol. (JGEET) 1, 1, p. 51-58.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/7/299)
(Three sequences in M Miocene Baong deep marine sands in N Sumatra basin. Clastic deposits interpreted to come from S-SW, from Barisan Mts that started uplift at this time)

Natasia, N., I. Syafri, M.K. Alfadli & K. Arfiansyah (2017)- Analisis fasies reservoir A Formasi Menggala di lapangan Barumun Tengah, Cekungan Sumatra Tengah. Bull. Scientific Contr. (UNPAD) 15, 2, p. 139-149.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/13387/pdf)
('Facies analysis of the Menggala Formation A reservoir in the Central Barumun field, Central Sumatra Basin'. Tidal flat and lagoonal facies in E Miocene sandstones in BT-1 and BT-3 wells in NW-most part of Central Sumatra basin (TongaPSC?))

Ningrum, N.S. & B. Santoso (2009)- Petrographic study on genesis of selected inertinite-rich coals from the Jambi subbasin. Indonesian Mining J. 12, 3, p. 111-117.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/553/415)
(Coals of fluvio-deltaic Late Oligocene Talangakar Fm in Jambi Subbasin both rich in vitrinite (56-77%) and inertinite (17-36%). Vitrinite content associated with bright lithotype deposited in wet-swampy area; inertinite associated with dull lithotype from dry-swampy area. Vitrinite reflectance 0.45-0.47% (subbituminous). Low-medium sulphur (most Sumatra coals <5% inertinite and >80% vitrinite))

Permana, B.R., Y. Darmadi, I. Rahmawan & T. Siagian (2018)- Revealing hydrocarbon potential in a tight sand reservoir: a case study of the Baturaja sands in Sumpan Field, South Sumatra basin. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-318-G, 21p.
(Sumpal Field is large gas field in Corridor block, currently producing from fractured pre-Tertiary crystalline basement rocks. E Miocene silty sandstone (Baturaja Fm/ Lower Telisa equivalent) present in many wells and contains light oil. Thickness 7-18m, but low permeability and requires fracking)

Permana, B.R., Y. Darmadi, I.B. Sinaga, D. Kusmawan & A. Saripudin (2016)- The origin of oil in the Telisa Formation, Suban Baru Field, and the next exploration path. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 23-TS-16, p. 1-17.
(Oil discovered in Suban 3 and Suban Baru wells in sandstones in marine upper Telisa Fm (late E Miocene) in Suban Baru Field, Corridor Block of C Palembang sub-basin of S Sumatra. Variable reservoir quality. Oils sourced from mixed terrestrial-marine facies, probably from source rock below Telisa Fm, although Telisa Fm may be mature in deeper parts of S Sumatra Basin)

Pethe, S. (2013)- Subsurface analysis of Sundaland basins: source rocks, structural trends and the distribution of oil fields. M.Sc. Thesis Ball State University, Indiana, p. 1-79.
(online at: http://cardinalscholar.bsu.edu/handle/123456789/197811)

(Test of 'W. Ade Rule', stating that "95% of all commercial oil fields in the Sumatra region occur within 17 km of seismically mappable structural grabens in the producing basins". Graben mapping suggests in S Sumatra Basin 78% of oil fields located within 17 km margin from grabens. For Sunda/Asri basin number is 100%, for Ardjuna basin 92%)

Pradana, A.Y., Y. Indriyanto, A.W. Johanes & A.M. Adiwiarta (2017)- Facies, diagenesis, and depositional setting of carbonate build-up in the Merang High, Jambi sub-basin, Indonesia. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 6p.
(Miocene Baturaja Fm carbonate reservoir in Sungai Kenawang and Pulau Gading fields of Jambi Basin (buildups on NE-SW trending Merang and Ketaling Highs))

Pramudyo, Y.B., S.M. Hendar, H. Nur, M.R. Reinhold & G.W. Jacobs (2007)- An integrated study of low permeability reservoir in the Bekasap Field, Central Sumatra Basin, Indonesia. In: Soc. Petrol. Engineers (SPE) Asia Pacific Oil and Gas Conf. Exhib., Jakarta, 5p.
(On study of E Miocene Bekasap and Menggala Fms sandstones in mature Bekasap field (1955; 107 producing wells). Model delineates trends of estuarine, sand ridge and margin facies that reflect paleogeography. Thirty one horizontal wells drilled in field, predicted to improve ultimate recovery from 14% to 28%)

Pujobroto, A. & C. Hutton (2000)- Influence of andesitic intrusions on Bukit Asam coal, South Sumatra Basin Indonesia. Proc. Southeast Coal Geology Conference, Directorate General of Geology and Mineral Resources of Indonesia, Bandung, p. 81-84.

Purnama, A.B., S. Salinita, Sudirman, Y.A. Sendjaja & B. Muljana (2018)- Penentuan lingkungan pengendapan lapisan batubara D, Formasi Muara Enim, Blok Suban Burung, Cekungan Sumatera Selatan. J. Teknologi Mineral dan Batubara 14, 1, p. 1-18.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/minerba/article/view/182/533)
('Interpretation of depositional environment of coal seam D, Muara Enim Formation, Suban Burung Block, South Sumatera Basin'. M-L Miocene coal seam D of Muara Enim Fm dominated by vitrinite (~71%), inertinite (17.6%), liptinite (5.9%) and 6.4% mineral matter. Vitrinite reflectance Rvmax 0.25-0.38%, corresponding to lignite-subbituminous rank. Deposited in a limnic depositional environment)

Pustantra, F.Y., Sardjito & Y. Surtiati (2017)- Stratigraphic trap exploration on Paleogene deposit in Puspa area, East Jambi. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 8p.
(On potential for stratigraphic traps in Paleogene rift section of Puspa area in NE part of NE-SW trending Tempino-Kenali Asam Deep/ rift, NE part of Jambi Basin. Six sequences in M Eocene - Late Oligocene rift fill: early synrift (P10-P17; fluvial- lacustrine) and late synrift (P17-N4; fluvio-deltaic). Sediment source from NE)

Rahmat, G. (2017)- Quantitative biostratigraphy at Air Benakat Formation and sequence stratigraphy analysis in Tempino Field Jambi Subbasin. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 9p.
(Air Benakat Fm at Tempino Field, Jambi Basin, ~500m thick. Age from late E- M Miocene (NN4-NN6 or N7-N11?; ~18-12 Ma?). Four sequences)

Rahmat, G., Julikah, A. Kholiq & Sriwijaya (2016)- Paleogeography maps based on sequence stratigraphy analysis in Jambi sub-basin and implication to shale hydrocarbon play distributions. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 614-634.
(Jambi subbasin nine sequences from E Eocene- M Miocene. Paleogeography maps for sequences 1-4 (Lemat-Gumai Fms. Based on richness, maturation, facies and amount of shale highest shale hydrocarbon potential in Sequence 3 (U Talang Akar- lower Baturaja Fm (also as p. 706-726 in same volume))

Ratiwi, A.P. & Akmaluddin (2017)- Biostratigrafi nannofossil gampingan pada sumur 'SSB' sub-cekungan Palembang Selatan, Cekungan Sumatera Selatan. Proc. 10th Seminar Nasional Kebumian, Dept. Teknik Geologi, Universitas Gadjah Mada (UGM), Yogyakarta, PSP-01, p. 793-805.
('Calcareous nannofossil biostratigraphy of well 'SSB', South Palembang sub-basin, S Sumatra'. Nannofossils study of (unspecified) well, from Lahat to Air Benakat Formations. Five zones, from Sphenolithus ciperoensis

(NP 25) to Reticulofenestra minuta (NN5). Age of Lahat Fm NP25-NN1 (25.2-24.3 Ma), Talang Akar Fm NN1-early NN2 (24.3-23.9 Ma), Baturaja Fm NN2-NN4 (23.9-17.6 Ma), Gumai Fm NN4-early NN5 (17.6-14.9 Ma), and Air Benakat Fm NN5 (14.9-14.8Ma) or younger. Age of Lahat Fm younger than generally assumed Eocene (see also Agustin et al. 2017 for sequence strat interpretation of same well)

Redfern, J., P. Ebdale & S. Oesman (1998)- The deep gas potential of the Batu Raja Formation in South Sumatra. A case history : the Singa gas discovery. In: Offshore South East Asia Conf. (OSEA98), Singapore, SEAPEX, p. 123. *(Abstract only)*
(Singa 1 (1997) well tested Batu Raja reefal limestone buildup, deep in Lematang Trough (~12,000'), ~3000' deeper than any wells previously drilled in area. Tested gas at 30.7 MMSCFD from 258' gross interval)

Samudra A.B.S., J. Jaenudin, Y.A.M. Mizani & Y.S. Surtiati (2014)- Strike-slip fault system characterization and its implication to hydrocarbon entrapment in the Puja High, South Sumatra. In: 76th EAGE Conference and Exhibition 2014, p.
(Puja-1 gas-condensate well drilled by Pertamina in 2009 on local high in Tempino-Kenali Asam Deep, Jambi subbasin, S Sumatra Basin, Indonesia. Structure controlled by SE and NW dipping normal faults, developed in transtensional rift setting and affecting synrift clastic sedimentation)

Santoso, B. & B. Daulay (2007)- Comparative petrography of Ombilin and Bayah coals related to their origin. Indonesian Mining J. 10, 3, p. 1-12.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/608/470)
(Comparison of Eocene coals of Ombilin (W Sumatra) and Bayah (SW Java). Bayah with higher mineral matter; Ombilin higher vitrinite and liptinite contents, higher vitrinite reflectance and rank (sub-bituminous to anthracite). Thermally unaffected coals from both coalfields <90 % vitrinite. Variable vitrinite reflectances, due to igneous intrusions)

Sapiie, B., D. Aprianyah, E.Y. Tureno & N.A. Manaf (2017)- A new approach in exploring a basement-fractured reservoir in the Sumatra back-arc basin. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-260-G, 13p.
(Review of 3D fracture modeling in Pretertiary basement rocks of Sumatra, incl. outcrop fracture study in Ombilin Basin)

Schenk, C.J., T.R. Klett, M.E. Tennyson, T.J. Mercier, M. E. Brownfield, J.K. Pitman et al. (2016)- Assessment of Coalbed Gas resources of the Central and South Sumatra Basin Provinces, Indonesia. U.S. Geol. Survey, Fact Sheet 2016-3089, 2p.
(online at: https://pubs.usgs.gov/fs/2016/3089/fs20163089.pdf)
(Undiscovered total coalbed gas resource of C and S Sumatra basins is most likely 20 TCF of gas (8 in C, 12 in S Sumatra; F95-F5 range 4.8- 42 TCF). Measurements indicated coals undersaturated with gas. Presence of liptinite led to hydrogen indices as high as 300 mg/g, suggesting coals may be able to produce liquids)

Sefein, K.J., T.X. Nguyen & R.P. Philp (2017)- Organic geochemical and paleoenvironmental characterization of the Brown Shale Formation, Kiliran sub-basin, Central Sumatra Basin, Indonesia. Organic Geochem. 112, p. 137-157.
(Late Eocene?- E Oligocene lacustrine Brown Shale Fm of Pematang Group samped in Karbindo coal mine in Kiliran graben on W side of C Sumatra basin. Organic matter primarily from lacustrine organisms with minor terrestrial plant input. 4-Methylsterane concentrations and n-alkane distributions indicate non-marine dinoflagellates and Botryococcus braunii likely significant parts of local biosphere)

Setiadi, D.J., Hendarmawan, E. Sunardi, E.A. Sentani & J. Hutabarat (2017)- Miocene planktonic foraminiferal biozonation for South Sumatra Basin, Indonesia. J. Geol. Sciences Applied Geology (UNPAD) 2, 3, p. 89-99.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/15615/7344)
(General discussion of standard planktonic foram zonation (nothing on how applied to S Sumatra; HvG))

Setyaningsih, C.A. (2013)- Palynological study of the Pematang Formation of the Aman Trough, Central Sumatra Basin. Lemigas Scientific Contr. Oil and Gas 36, 3, p. 131-144.

Setyaningsih, C.A., E.B. Lelono & Firdaus (2015)- Palynological study of the Jambi sub-basin, South Sumatra. Lemigas Scientific Contr. Oil and Gas 38, 1, p. 1-12.
(online at: www.lemigas.esdm.go.id/publikasi/read/scientific/1/)
(Outcrop samples from Talang Akar and younger formations at Merangin River, Muara Jernih and Mengupeh areas show E-M Miocene ages. Top M Miocene age identified by pollen Florschuetzia levipoli and F. meridionalis, whilst base of E Miocene marked by appearance of nannoplankton Sphenolithus compactus)

Sijabat, H., T. Usman, Aliftama, H. Indrajaya, D. Susanti, M. Wahyudin & Sugiri (2016)- Petroleum geochemistry of Pre-Tertiary sediment, North Sumatra Basin. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 439-442.
(Geochemistry of five outcrop samples of shale near Kutacane, along Alas River, Aceh. With Jurassic-Cretaceous nannoplankton, but mapped as Paleozoic on Medan geologic map). TOC 0.29-0.57%, vitrinite reflectance 2.1-2.4% (overmature), gas prone source)

Sosrowidjojo, I.B. (2013)- Coal geochemistry of the unconventional Muara Enim coalbed reservoir, South Sumatra Basin: a case study from the Rambutan field. Indonesian Mining J. 16, 2, p. 71-78.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/425/290)
(Muaraenim coalbeds in Rambutan Field, S Sumatra, high vitrinitic coal (up to 83% huminite), making it target for CBM development. High sub-bituminous rank (Ro<0.5%), high moisture content (up to 21%). Minerals <5%, mostly iron sulfide. Cleat fillings dominated by kaolinite. Rambutan wells 3 main coal seams with thickness ~9-14m, between depths ~480-950m, Ro 0.3- <0.5%. Apparent high degree of undersaturation)

Subiyanto (2003)- Pola penyebaran kualitas batubara dan rencana pemboran eksplorasi di daerah Bukit Kendi, Tanjung Enim, Sumatera Selatan. J. Geologi Sumberdaya Mineral 13, 140, p. 30-60.
('Pattern of coal quality distrubution and exploration drilling plan in the Bukit Kendi area, Tanjung Enim, South Sumatra'. Muara Enim Fm Late Miocene- Pliocene coal in Bukut Kendi area, 12 km S of Bukit Asam coal mines. Folded in NW-SE anticlines. Coal rank increased by basaltic andesite intrusions)

Subiyantoro, G. (1998)- The application of sequence stratigraphy as a guidance for reactivating observation well to be producer well in Minas field, PT Caltex Pacific Indonesia. Proc. 27th Ann. Conv. Indon. Assoc. Geol. (IAGI), 2 (Sed. Pal. Strat.), Yogyakarta, p. 91-105.
(Sequence stratigraphic interpretations and correlatios in reservoir interval of Minas Field, C Sumatra)

Sukanta, U., M.M. Djamaludin, H, Semimbar, Yarmanto, B.S. Simanjuntak, G. Subiyantoro, Mulyadi & Pujiarko (2002)- Depositional environment and paleogeography of Miocene siliciclastic-rich outcrops in the northwest corner of the Central Sumatra basin. Proc. 31st Ann. Conv. Indon. Assoc. Geol. (IAGI), Surabaya, 2, p. 701-710.
(Sand-rich outcrops of Miocene age outcrop in NW corner of C Sumatra basin. Few 100m thick, correlated to Sihapas Group. No figures? and no supporting biostrat control?)

Suta, I.N. (2016)- Jabung Block exploration through time: discoveries and challenges. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 46-TS-16, p. 1-10.
(Exploration history of Jabung Block in Jambi subbasin of S Sumatra basin. CO2 content of gas major challenge)

Sutriyono, E., E.W.D. Hastuti & B.K. Susilo (2016)- Geochemical assessment of Late Paleogene synrift source rocks in the South Sumatra Basin. Int. J. Geomate (Japan) 11, 23, p. 2208-2215.
(online at: http://geomatejournal.com/sites/default/files/articles/2208-2215-1141-Sutriono-July-2016.pdf)
(Geochemistry of outcropping shales in U Oligocene Talang Akar Fm at Lengkayap and Napalan rivers, Garba Mts, S Sumatra basin.Low-moderate TOC's. Vitrinite reflectance indicates immature- early mature for oil)

Suwarna, N., M. Iqbal, H. Hermiyanto & R. Koswara (2015)- Organic petrographic and geochemical characteristics of Eo- Oligocene Kasiro shales, Southern Sumatra, Indonesia. In: Hydrocarbons in the tropics, Abstracts 32nd Ann. Mtg. Soc. Organic Petrology, Yogyakarta 2015, p. 132-133. *(Extended Abstract)*
(Late Eocene- E Oligocene lacustrine oil shales of Kasiro Fm from Sekeladi Village, Jambi, with high TOC (0.72- 16.1%) and kerogen mainly Type II. Good-excellent oil potential. Thermal maturity late immature- early mature; some samples mature- post mature (Rv 0.22- 0.63%, mainly 0.41%))

Syaifudin, M. & B. Triwibowo (2002)- Application of the correction vitrinite refectance model in Central Sumatra Basin. Proc. 31st Ann. Conv. Indon. Assoc. Geol. (IAGI), Surabaya, 1, p. 1-28.
(Vitrinite reflance commonly used hydrocarbon maturity parameter. Proven technique for coal samples, but often suppressed in source rocks, especially when rich in hydrogen (e.g. in Brown Shale of C Sumatra))

Syarifuddin, I.Y. & P. Ariyanto (2018)- Tectono-stratigraphy of Block A area, North Sumatra Basin: the impact of local tectonics and eustasy to accommodation space of the Tertiary interval. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-586-G, 16p.
(Review of N Sumatra basin. Major subsidence during Paleogene rifting and M Miocene- Recent syn-tectonic episodes, separated by period of tectonic quiescence in E-M Miocene. Very high rate of subsidence (N9-N11), likely related to activation of Barisan Mts uplift, with active thrusting along Barisan front)

Syukri, I.Y., B. Permana, M. Ginanjar, M. Firdaus & S. Windyarsih (2018)- Identifying new potential in a mature field: a mixed siliciclastic carbonate K-Limestone reservoir characterization in Supat Field, South Sumatra Basin. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-330-G, 28p.
(Supat Field in Corridor Block discovered in 1984 (Asamera), producing since 1988. Rel. thin latest Oligocene- earliest Miocene 'K-Limestone' at top of Talang Akar Fm along basin margin. Low-porosity sandy limestone with oil shows)

Syukri, I.Y., B. Permana, I. Rahmawan & I.B. Sinaga (2017)- An integrated subsurface study for evaluating potential in Teluk Rendah Field, South Jambi 'B' PSC, South Sumatera Basin. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-121-G, 25p.
(Study of Teluk Rendah Field, discovered in 1991 in NW corner of S Jambi “B” Block, S Sumatera Basin. Produced gas-condensate from 2004 to 2012 from fluvial Lower Pendopo Fm (= Talang AkarFm?) sandstones in young faulted anticline. Sands sourced from NE)

Tampubolon, R.A., S.A. Diria, H. Purba, A. Basundara & J. Trivianty (2017)- Kajian tektonik dan sedimentasi di Cekungan Sumatera Utara dan impikasinya untuk potensi gas serpih. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 51, 2, p. 107-113.
(?online at: http://www.journal.lemigas.esdm.go.id/ojs/index.php/LPMGB/article/view/22)
('Evaluation of tectonics and sedimentation in North Sumatra and its implication to shale gas potential'.)

Tampubolon, R.A., T. Ozza, M.T. Arifin, A. S. Hidayatillah, A. Prasetio & T. Furqan (2017)- A review of regional geology of the North Sumatra Basin and its Paleogene petroleum system. Berita Sedimentologi (Indon. Sediment. Forum, FOSI- IAGI) 37, p. 23-29.
(online at: www.iagi.or.id/fosi/files/2017/03/BS37-03032017.pdf)

Tarigan, Z.L. & R.T. Silaen (2013)- Dolomite diagenesis of Tampur Formation along Tampur River, Southeast Aceh. Proc. 37th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA13-SG-066, p. 1-9.
(Diagenesis of limestone outcrop samples along Tampur River, N Sumatra, includes dolomitization and fracturing. Tampur Fm generally assigned to Eocene- E Oligocene (but no biostrat support for this age ever published and thin sections published here do not show traditional Eocene limestone forams?; JTvG))

Tobing, R.L. (2016)- Kematangan termal dan estimasi kandungan minyak endapan serpih Formasi Sinamar di daerah Dusun Panjang, Provinsi Jambi. Bul. Sumber Daya Geologi 11, 2, p. 93-101.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)

('Thermal maturity and estimation of shale oil content of the Sinamar Fm in the Dusun Panjang area, Jambi Province'. Oligocene Sinamar Fm shales ~10- >25m thick in outcrop in W part of Jambi basin. Organic content up to 17% , dominated by Types I and II kerogen. Liptinite and vitrinite up to 10%, inertinite up to 0.49%. Immature to overmature. May produce 5- 90 liter oil/ ton shale, giving oil resource of ~69,535,298 barrels(!))

Utoyo, H. & Subiyanto (2002)- Batuan terobosan di daerah Bukit Kendi, Sumatera Selatan, kaitannya dengan pematangan dan peningkatan mutu batubara. Proc. 31st Ann. Conv. Indon. Assoc. Geol. (IAGI), Surabaya, 1, p. 103-137.
('Intrusive rocks in the Bukit Kendi area, South Sumatra, related to maturation and improved quality of coal'. Intrusives of Bukit Kendi and Bukit Cepadang and associated sills in Tanjung Enim area generated hydrothermal temperatures of ~230°C, causinglocal improved thermal maturation of Late Miocene- Pliocene Muara Enim Fm coals)

Van Dijk, P. (1864)- Bijdragen tot de geologische en mineralogische kennis van Ned. Indie, XXVII. Koperaders in de Padangsche Bovenlanden. Natuurkundig Tijdschrift Nederl.Indie 27, p. 87-109.
('Copper veins in the Padang Highlands'. Investigations in the canyon of Paningahan (low-Cu in veins in chlorite shale) and in the ore district of the Sibumbun-Djanten (multiple veins with malachite, etc.)

Van Heurn, F.C. (1923) Studien betreffende den bodem van Sumatra's Oostkust, zijn uiterlijk en zijn ontstaan. J.H. de Bussy, Amsterdam, p. 1-121.
('Studies on the soil of Sumatra's East coast, its appearance and origin'. With discussion of geologic context of soils of NE Sumatra. With simple map showing boundary between 'high-red soils' and 'low-white soils')

Vendrell-Roc, J. (2009)- Prospectivity of the offshore North Sumatra Basin and the southern part of the Andaman Sea. Proc. 2009 SE Asia Petroleum Expl. Soc. (SEAPEX) Conference, Singapore, p. 1-29. *(Abstract + Presentation)*

Von Ettingshausen, C. (1883)- Beitrag zur Kenntnis der Tertiarflora von Sumatra. Sitzungsberichte Akademie Wissenschaften, Wien, 87, p. 395-403.
(online at: www.zobodat.at/pdf/SBAWW_87_0395-0403.pdf)
('Contribution to the knowledge of the Tertiary flora of Sumatra')

Wibawa, I G.A.A.S., A. Syafriya, B. Syam, M.I. Nursina, M. Risyad & A.D. Fanzuri (2018)- Unlocking overlooked Gumai play potential at Jabung Betara complex: a best case study of gas while drilling classification in finding the new pays. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-131-G, 18p.
(Discussion of gas in E Miocene Gumai Fm sandstones) in area of NE Betara Field, Jabung Block, S Sumatra)

Wibowo, A. & I. Fardiansyah (2016)- Alluvial- fluvial architecture of synrift deposits: an observation from the Outcrops of Brani Fm., Ombilin Basin, West Sumatra. Berita Sedimentologi 36, p. 35-43.
(online at: www.iagi.or.id/fosi/berita-sedimentologi-no-36.html)
(Outcrops of Eocene synrift, alluvial- fluvial Brani Fm of Ombilin Basin useful analogue for subsurface rift-fill of C Sumatra Basin)

Wibowo, R.A., W. Hindadari, S. Alam, P.D. Silitonga & R. Raguwanti (2008)- Fractures identification and reservoir characterization of gas carbonate reservoir at Merbau Field, South Palembang Basin, Sumatra, Indonesia. AAPG Ann. Conv., San Antonio, Search and Discovery Art. 20064, 35p. *(Abstract + Presentation)*
(online at: http://www.searchanddiscovery.com/documents/2008/08149wibowo/ndx_wibowo.pdf)
(On fractures in Merbau field, a 1975 gas discovery in Baturaja Limestone buildup in S Sumatra basin)

Wibowo, S.S. & E.A. Subroto (2017)- Studi geokimia dan pemodelan kematangan batuan induk Formasi Talangakar pada Blok Tungkal, Cekungan Sumatera Selatan. Bulletin of Geology (ITB) 1, 1, p. 54-64.
(online at: http://buletingeologi.com/index.php/buletin-geologi/issue/view/2/08_BG201614)
('Geochemical study and maturation model of the Talangakar Formation rocks from the Tungkal Block, South Sumatera basin'. Talang Akar Fm sediments with immature - late mature organic matter. Dominated by mixed

type II/III and type III kerogen. Modeling at well locations shows presently at early to main oil generation stage (Ro 0.5-1.3%). Maximum burial in Pliocene)

Widayat, A.H. (2011)- Paleoenvironmental and paleoecological changes during deposition of the Late Eocene Kiliran oil shale, Central Sumatra Basin, Indonesia. Ph.D. Thesis, Johann Wolfgang Goethe University, Frankfurt am Main, p. 1-143.
(online at: https://core.ac.uk/download/pdf/18325618.pdf)
(Palynofacies and geochemical study of samples from 102m core in Late Eocene Kiliran oil shale ('Brown Shale', Pematang Gp). Represents ~240.000 years of lacustrine deposition in warm-humid climate)

Widodo, R. (2012)- Integrating wells and 3D seismic data to delineate the sandstone reservoir distribution of the Talang Akar Formation, South Sumatra Basin, Indonesia. In: AAPG Int. Conv. Exhib., Singapore 2012, Search and Discovery Art. 50748, 22p.
(online at: www.searchanddiscovery.com/documents/2012/50748widodo/ndx_widodo.pdf)
(Distribution and depositional environment of selected sandstone reservoirs in Late Oligocene- E Miocene fluvial-deltaic Talang Akar Fm in Jambi sub-basin. Mainly distributary channel fill facies)

Wisnugroho, P.H. (2014)- Coal deposits in Tanjung Enim coal field, Bukit Asam, South Sumatera Province. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 451-459.

Yarmanto (2010)- Perkembangan batupasir pada sekuen Telisa Cekungan Sumatra Tengah. Ph.D. Thesis Inst. Teknologi Bandung (ITB), p. 1- *(Unpublished)*
('Development of sandstones in the Telisa sequence in the Central Sumatra Basin')

Yeni, Y.F., R. Wulandari, F. Ruzi, A. Azlin, A. Regina, R. Bramantyo, M.H. Thamrin & Raihan (2017)- Fractured and weathered basement reservoirs in Beruk High, Central Sumatra Basin. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 6p.
(Beruk High part of Coastal Plain Pekanbaru Block in C Sumatra basin. Part of Sibumasu- E Sumatra Block. Oil produced from Permian- E Cretaceous fractured-weathered basement of Beruk High, with open fractures trending NW- SE. Lithologies: quartzite (E Permian K-Ar age: 276 Ma,), granites (Jurassic K-Ar ages: 203, 179, 150 Ma, hornfels (116 ± 6 Ma))

Yuningsih, E.T. (2007)- Studi provenance batupasir formasi-formasi di Cekungan Ombilin, Sumatra Barat. Bull. Scientific Contr. (UNPAD) 5, 1, p. 33-41.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8132/3705)
(Sandstone provenance studies of formations in the Ombilin Basin, West Sumatra'. Q-F-L triangle diagrams suggest provenance of quartz-rich (Eocene) Brani Fm is from continental block. (Oligocene) Sawahlunto and Sawahtambang Fms same or 'recycled orogen'. (Miocene) Sangkarewang and Ombilin Fms are 'transitional magmatic arc'. Etc.)

Yustiawan, R., B.A. Pramudhita, A. Prakoso, Y.A. Nagarani & H. Yusuf (2013)- Pematang Brown shale as potensial reservoir for the future Malaca Strait. Proc. Joint Conv. 38th Indon. Assoc. Geoph. (HAGI) - 42nd Indon. Assoc. Geol. (IAGI), Medan, p.

Zaim, Y., G.F. Gunnell, R.L. Ciochon, Y. Rizal, Aswan & N. O'Shea (2014)- Paleogene vertebrates from Tanahsirah, Talawi- Ombilin Basin, West Sumatra: a preliminary field result. Buletin Geologi (ITB) 41, 3, p. 175-184.
(Paleogene Sangkarewang/Sawahlunto Fms initially known only for fish fossils. Subsequent finds of crocodiles, turtles, small mammal bones and teeth (first Paleogene mammal finds in oceanic SE Asia), and bird trackways)

Zajuli, M.H.H., H. Panggabean, Hendarmawan & I. Syafri (2017)- Hubungan kelompok maseral liptinit dan vitrinit dengan tipe kerogen batuan sumber hidrokarbon pada serpih Formasi Kelesa bagian atas, Kuburan Panjang, Riau. J. Geologi Sumberdaya Mineral 18, 1, p. 13-23.

(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/101/126)
('Relationship between liptinite and vitrinite maceral groups with kerogen type of hydrocarbon source rock of upper Kelesa shale formation in Kuburan Panjang, Riau'))

Zulmi, I., A. Inabuy & R. Wisnu Y. (2016)- A hidden gas potential of alluvial fan deposits in Gebang Block, North Sumatra. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 544-548.
(Up to 300m thick Eo-Oligocene alluvial fan sandstones identified in Anggor and Secanggang Fields and Gebang Block wells in N Sumatra basin. Gas tested in Anggor and GB-04 wells. Risk of overpressure)

II.3. Sumatra - Offshore Forearc and islands (36)

Ammon, C.J., Chen Ji, H.K. Thio, D. Robinson, S. Ni, V. Hjorleifsdottir, H. Kanamori, T. Lay et al. (2005)- Rupture process of the 2004 Sumatra-Andaman earthquake. Science 308, p. 1133-1139.

Ardhyastuti, S., Y. Haryadi & T. Wiguna (2017)- Mapping of gas seepage zone in the fore arc basin Sumatra Region. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 6p.
(Description of active gas seep on seafloor in Simeulue- Siberut forearc basin: seismic expression, carbonate hardground cementation of seafloor. Seep vent fauna of white crabs, mytilid bivalves, Vestimentifera polychaete tube worms, etc.)

Arisbaya, I., M.M. Mukti, L. Handayani, H. Permana, M. Schnabel & K. Jaxybulatov (2015)- Tinggian Tabuan-Panaitan jejak sesar Sumatra di Selat Sunda berdasarkan analisis data geofisika. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I33-I39.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf)
('The Tabuan- Panaitan Ridge, trace of the Sumatran fault in Sunda Strait, based on geophysical data analysis'. Semangko pull-apart basin in Sunda Straits two sub-basins separated by NW-SE to N-S trending Tabuan-Panaitan Ridge, part of main Sumatra Fault zone in Sunda Strait. With likely magmatic intrusion activity)

Arisbaya, I., M.M. Mukti & H. Permana (2016)- Seismic evidence of the southeastern segment of the Sumatran Fault Zone in Sunda Strait and Southern Java. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 378-383.
(Bathymetry data and local seismicity in Sunda Strait suggest existence of extension segment of Sumatran Fault Zone S of Ujung Kulon towards Sunda Trench, and is active fault)

Berglar, K., C. Gaedicke, S. Ladage & H. Thole (2017)- The Mentawai forearc sliver off Sumatra: a model for a strike-slip duplex at a regional scale. Tectonophysics 710-711, p. 225-231.
(At Sumatran oblique convergent margin Mentawai and Sumatran Fault right-lateral fault zones accommodate most of trench- parallel component of strain and bound Mentawai forearc sliver that extends from Sunda Strait to Nicobar Islands. Set of wrench faults obliquely connect two major fault zones, separating at least four horses of regional strike-slip duplex forming forearc sliver, each comprising individual basin in forearc. Duplex formation started in M-L Miocene SW of Sunda Strait, then propagated N-wards over 2000 km until E Pliocene)

Delescluse, M., N. Chamot-Rooke, R. Cattin, L. Fleitout, O. Trubienko & C. Vigny (2012)- April 2012 intra-oceanic seismicity off Sumatra boosted by the Banda-Aceh megathrust. Nature 490, p. 240-244.
(Two large intra-oceanic earthquakes in NE Indian Ocean on 11 April 2012 largest strike-slip events in historical times. Triggered large aftershocks worldwide. Along fossil fabric of extinct Wharton basin and part of intraplate deformation between India and Australia that followed Aceh 2004 and Nias 2005 megathrust earthquakes. Australian plate, driven by slab-pull forces at the Sunda trench, is detaching from Indian plate, which is subjected to resisting forces at Himalayan front)

Farida, W.N., Y. B. Muslih, B.R. Irwansyah, T. Supratama, B. Novrian & D. Mindasari (2016)- Cenozoic Sumatra accretionary prisms: a new geological perspective and implications for hydrocarbon exploration. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 18-TS-16, p. 1-17.
(Literature review of Sumatra accretionary prism. High-risk frontier exporation area)

Feng, L., E.M. Hill, P. Banerjee, I. Hermawan, L.L.H. Tsang, D.H. Natawidjaja, B.W. Suwargadi & K. Sieh (2015)- A unified GPS-based earthquake catalog for the Sumatran plate boundary between 2002 and 2013. J. Geophysical Research, Solid Earth, 2015, 120, 5, p. 3566-3598.

Feng, L., E.M. Hill, P. Elosegui, Q. Qiu, I. Hermawan, P. Banerjee & K. Sieh (2015)- Hunt for slow slip events along the Sumatran subduction zone in a decade of continuous GPS data. J. Geophysical Research, Solid Earth, 120, 12, p. 8623-8632.

Frederik, M.C.G. (2016)- Morphology and structure of the accretionary prism offshore North Sumatra, Indonesia and offshore Kodiak Island, USA: a comparison to seek a link between prism formation and hazard potential. Ph.D. Thesis University of Texas at Austin, p. 1-136.
(online at: https://repositories.lib.utexas.edu/handle/2152/45947)
(Incl. study of accretionary prism offshore N Sumatra between 1-7°N. Steep outer slope (5-12°), plateau ~100-120 km wide, and steep inner slope adjacent to Aceh Basin. Predominantly landward vergence from deformation front for ~70 km landward. Prism toe region prominent mass failures. Etc.)

Frederik, M.C.G., S.P.S. Gulick, J.A. Austin, N.L.B. Bangs & Udrekh (2015)- What 2-D multichannel seismic and multibeam bathymetric data tell us about the North Sumatra wedge structure and coseismic response. Tectonics 34, 9, p. 1910-1926.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2014TC003614/epdf)
(Bathymetric and seismic surveys across accretionary prism off NW Sumatra. Accretionary wedge in study area up to~180 km wide, narrowing to 125km to S, near Simeulue island. Seafloor depths ~4.5 km near Sunda Trench to <1 km on fore-arc high near fore-arc basin. Wedge consists of steep outer slope (5-12°), plateau ~100-120 km wide with anticlinal folds spaced 2-15km apart, and steep inner slope adjacent to Aceh forearc Basin. Mainly landward-vergent folds at trench side, mainly seaward vergent folds at landward side)

Ghosal, D., S.C. Singh, A.P.S. Chauhan & N.D. Hananto (2012)- New insights on the offshore extension of the Great Sumatran fault, NW Sumatra, from marine geophysical studies. Geochem., Geophys. Geosystems 13, 11, Q0AF06, p. 1-18.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2012GC004122/epdf)
(High-res bathymetry shows NW offshore extension of Great Sumatra FZ near Banda Aceh into young SW transpressional Breueh and NE transtensional Weh basins, with Sumatran volcanic arc passing through Weh basin)

Handayani, L. & H. Harjono (2008)- Perkembangan tektonik daerah busur muka Selat Sunda dan hubungannya dengan zona sesar Sumatera. J. Riset Geologi Pertambangan (LIPI) 18, 2, p. 31-40.
('The tectonic development of the Sunda Strait forearc area and its relationship to the Sumatran Fault Zone'. Sunda Strait forearc interpreted as ongoing separation of area as Sumatra forearc plate moved NW, bounded by Sumatra Fault. Sumatra Fault can be viewed to extend across fore arc to trench as several graben systems)

Hupers, A., M.E. Torres, S. Owari, L.C. McNeill, B. Dugan, T.J. Henstock, K.L. Milliken, K.E. Petronotis, J. Backman et al. (2017)- Release of mineral-bound water prior to subduction tied to shallow seismogenic slip off Sumatra. Science 356, 6340, p. 841-844.

Kallagher, H.J. (1990)- K-Ar dating of selected igneous samples from the Sibolga Basin, Meulaboh and Semeulue Island, Western Sumatra. Lemigas Scientific Contr. 14, 1, Spec. Issue, p. 99-111.
(Biotite from granodiorite in Seumayam Complex in Barisan Mts K-Ar age of ~98.6 Ma; biotites from Meuko River granodiorite ~56.2 and 53.2 Ma, compatible with Cretaceous- E Paleogene granitic activity recorded elsewhere in N Sumatra. Gabbro from E Simeulue ophiolite 35.4± 3.6 and 40.1 ± 2.7 Ma (Late Eocene), possibly representing formation as part of Indian Ocean floor. Basaltic- andesitic volcanics from Barisan Mts on E margin of Sibolga Basin 16- 9 Ma (M-L Miocene). Start of volcanic activity in M Miocene coincided with uplift of Barisan Mts along E margin of Sibolga Basin (E- M Miocene sediments only minor evidence of contemporaneous volcanic activity))

Klingelhoefer, F., M.A. Gutscher, S. Ladage, J.X. Dessa, D.F. Graindorge, A. Camille, H. Permana, T. Yudistira & A. Chauhan (2010)- Limits of the seismogenic zone in the epicentral region of the 26 December 2004 great Sumatra-Andaman earthquake: Results from seismic refraction and wide-angle reflection surveys and thermal modeling. J. Geophysical Research 115, B1, B01304, p. 1-23.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2009JB006569/epdf)
(2004 Sumatra earthquake initiated at ~ 30km depth and ruptured 1300km of Indo-Australian- Sunda plate boundary. Seismic velocity model from tomography and forward modeling shows deep structure of earthquake

source region. 4-5km of sediments on oceanic crust at trench. Crystalline backstop 120 km from trench axis, below fore-arc basin. Shallow continental Moho (22 km depth), 170 km from trench. Seismogenic zone begins 5-30 km from trench. Deeper part of rupture along contact between mantle wedge and downgoing plate)

Lange, D., F. Tilmann, T. Henstock, A. Rietbrock, D. Natawidjaja & H. Kopp (2018)- Structure of the Central Sumatran subduction zone revealed by local earthquake travel time tomography using amphibious data. Solid Earth Discussions, p. 1-24.
(online at: https://www.solid-earth-discuss.net/se-2017-128/se-2017-128.pdf)
(Tomographic model of C Sumatra subduction zone suggests thinned continental crust below basin E of forearc islands (Nias, Pulau Batu, Siberut) at ~180 km from trench. Reduced vp velocities beneath forearc region between Mentawai Islands and Sumatra mainland possibly reflect reduced thickness of overriding crust)

Lestari, R.A., L. Fauzielly, Winantris & Yudhicara (2014)- Indikasi endapan tsunami berdasarkan subfosil di rawa daerah Simeulue, Sumatera Utara. Bull. Scientific Contr. (UNPAD) 12, 3, p. 163-170.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8377/3893)
('Indications of tsunami deposits by subfossils in the swamp of the Simeulue area'. Presumed tsunami deposit with mixed marine foraminifera from middle (Elphidium, Pararotalia) and outer neritic (Heterolepa subhaidingeri) environments)

McNeill, L.C., B. Dugan, J. Backman, K.T. Pickering, H.F.A. Pouderoux, T.J. Henstock, K.E. Petronotis, A. Carter, F. Chemale, K.L. Milliken, S. Kutterolf, H. Mukoyoshi et al. (2017)- Understanding Himalayan erosion and the significance of the Nicobar Fan. Earth Planetary Sci. Letters 475, 1 p. 134-142.
(online at: https://www.sciencedirect.com/science/article/pii/S0012821X17303977)
(First sampling of full sedimentary section of Bengal-Nicobar Fan W of N Sumatra by IODP Expedition 362. Sources for Nicobar Fan mainly Himalayan-derived Ganges-Brahmaputra and Indo-Burman Ranges/W Burma, with minor contributions from Sunda forearc and arc and Ninetyeast Ridge. Bengal-Nicobar Fan clearly developing before Late Miocene, but distinct increase in sediment accumulation rate at ~9.5 Ma suggests restructuring of sediment routing in submarine fan system, coinciding with inversion of E Himalayan Shillong Plateau and encroachment of W-propagating Indo-Burmese wedge)

Mukhopadhyay, B. & S. Dasgupta (2014)- Genesis of a new slab tear fault in the Indo-Australian plate, offshore northern Sumatra, Indian Ocean. J. Geol. Soc. India 83, 5, p. 493-500.
(Slab-tear fault within subducting Indian plate ruptured in 2005 across W Sunda Trench within marginal intra-plate region)

Mukti, M.M. (2015)- Struktur, evolusi dan tektonik daerah busur depan tepian aktif Sundaland bagian barat. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I41-I49.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf)
('Structures, evolution and tectonics of the forearc region in the western Sundaland active margin')

Mukti, M.M. (2017)- Deformation in the Andaman- Northern Sumatra forearc revisited: implication for tectonic reconstruction of the western Sundaland margin. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 3p.

Mukti, M.M., S. Singh, I. Arisbaya, I. Deighton, L. Handayani, H. Permana & M. Schnabel (2015)- Geodinamika daerah busur muka Selat Sunda berdasarkan data seismik refleksi. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I25-I31.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf)
('Geodynamics of Sunda Strait forearc area based on seismic reflection data'. Sunda Strait transition zone between Java frontal subduction and Sumatra oblique convergence. Disappearance of forearc basin off Sumatra and presence of horsts and grabens. Young faults formed in sediments formerly part of forearc. Horsts and grabens not only related to pull-apart system, but also connected to volcanic-magmatic activities)

Mukti, M.M. & Suwijanto (2016)- On the update of structural map of Sumatra, from on land to offshore observations: implication for the tectonic reconstruction. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 375-377.
(Brief review)

Mulyana, B. (2006)- Extension tektonik Selat Sunda. Bull. Scientific Contr. (UNPAD) 4, 2, p. 137-145.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8123/3699)
('Extension tectonics of Sunda Straits'. Sunda Straits pull-apart basin at SE termination of Great Sumatra Fault Zone, with main opening in Pliocene- Recent. Clearly expressed by bathymetry. Associated with magmatism, with N20°E-trending, S-ward younging volcanic line from Sukadana in N (1.2 Ma) to Krakatau (1 Ma) and Panjaitan(0.5 Ma) in S)

Natawidjaja, D.H., K. Sieh, M. Chlieh, J. Galetzka, B.W. Suwargadi, H. Cheng, R.L. Edwards, J.P. Avouac & S.N. Ward (2006)- Source parameters of the great Sumatran megathrust earthquakes of 1797 and 1833 inferred from coral microatolls. J. Geophysical Research 111, B06403, 37p.
(Large uplifts and tilts on Sumatran outer arc islands between 0.5°- 3.3°S during great historical earthquakes in 1797 and 1833)

Noda, A. & A. Miyakawa (2017)- Deposition and deformation of modern accretionary type forearc basins: linking basin formation and accretionary wedge growth. In: Y. Itoh (ed.) Evolutionary models of convergent margins: origin of their diversity, Intech, Japan, Chapter 1, p. 3-27.
(online at: http://repository.osakafu-u.ac.jp/dspace/bitstream/10466/15058/103/Chapter01.pdf)
(Includes brief review of Sumatra- Java forearc basins, classified as doubly-vergent 'two-wedge' accretionary-type forearc basins)

Omura, A., K. Ikehara, K. Arai & Udrekh (2017)- Determining sources of deep-sea mud by organic matter signatures in the Sunda trench and Aceh basin off Sumatra. Geo-Marine Letters 37, 6, p. 549-559.
(In Aceh basin frequency of turbidite mud decreased as sea level rose during Pleistocene- Holocene deglaciation. Terrigenous organic carbon content high at end of Last Glacial period, but during deglaciation most organic carbon of marine origin. In Sunda trench Holocene turbidites consisted of remobilized slope sediments from two sources: (1) old Bengal/Nicobar fan with thermally matured organic fragments, whereas those derived from trench slope contained little terrigenous carbon)

Philibosian, B., K. Sieh, J.P. Avouac, D.H. Natawidjaja, H.W. Chiang, C.C. Wu, C.C. Shen et al. (2017)- Earthquake supercycles on the Mentawai segment of the Sunda megathrust in the seventeenth century and earlier. J. Geophysical Research, Solid Earth, 122, 10.1002/2016JB013560, p. 1-35.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2016JB013560/epdf)
(At least five discrete uplift events identified at raised coral reef sites around Siberut, Sipora, Pagai islands in about 1597, 1613, 1631, 1658, and 1703, likely corresponding to large megathrust ruptures)

Prawirodirdjo, L., R. McCaffrey, C.D. Chadwell, Y. Bock & C. Subarya (2010)- Geodetic observations of an earthquake cycle at the Sumatra subduction zone: Role of interseismic strain segmentation. J. Geophysical Research 115, B03414, 15p.

Qiu, Z., X. Han and Y. Wang (2017)- Turbidite events recorded in deep-sea core IR-GC1 off Western Sumatra: evidence from grain-size distribution. Acta Geologica Sinica (English Ed.) 91, 4, p. 1448ï 1456.
(Seven deep-sea turbidite layers identified in Indian Ocean core off Sumatra, corresponding to events that occurred at 128-130, 105-107, 98-100, 86-87, 50-53, 37-41 and 20-29 ka. Possible triggering mechanisms for turbidite events include tsunamis, earthquakes, volcanic eruptions and sea-level changes)

Salman, R., E.M. Hill, L. Feng, E.O. Lindsey, D.M. Veedu, S. Barbot, P. Banerjee, I. Hermawan & D.H. Natawidjaja (2017)- Piecemeal rupture of the Mentawai patch, Sumatra: the 2008 Mw 7.2 North Pagai earthquake sequence. J. Geophysical Research, Solid Earth, 122, 11, p. 9404-9419.

(online at: http://onlinelibrary.wiley.com/doi/10.1002/2017JB014341/epdf)

Schippers, A., G. Koweker, C. Hoft & B.M.A. Teichert (2010)- Quantification of microbial communities in three forearc sediment basins off Sumatra. Geomicrobiology J. 27, 2, p. 170-182.

Sieh, K. (2012)- The Sunda megathrust: past, present and future. J. Earthquake and Tsunami, 1, 1, p. 1-22.
(online at: http://www.tectonics.caltech.edu/sumatra/downloads/papers/Snu.pdf)
('Sunda Megathrust' is name for 1600km long seismogenic subduction zone off Myanmar-Andaman- Sumatra-Java, which runs from deep trench on ocean floor under continental margins. Slippage events in 2004 and 2005 caused major earthquakes and tsunamis)

Siegert, M., M. Kruger, B. Teichert, M. Wiedicke & A. Schippers (2011)- Anaerobic oxidation of methane at a marine methane seep in a forearc sediment basin off Sumatra, Indian Ocean. Frontiers Microbiology 2, 249, p. 1-16.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3245565/pdf/fmicb-02-00249.pdf)
(Cold methane seep in forearc basin off Sumatra, with methane-seep adapted microbial community)

Wang, X., K.E. Bradley, S. Wei &, W. Wu (2018)- Active backstop faults in the Mentawai region of Sumatra, Indonesia, revealed by teleseismic broadband waveform modeling. Earth Planetary Sci. Letters 483, p. 29-38
(online at: www.sciencedirect.com/science/article/pii/S0012821X17306933)
(Fault plane solutions of 2005 and 2009 earthquakes in Mentawai offshore area suggest 'back-thrust' sequences occurred on steeply landward-dipping fault. Interpreted as 'unsticking' of Sumatran accretionary wedge along backstop fault that separates accreted material from stronger Sunda forearc lithosphere, or as reactivation of pre-Miocene normal fault under forearc basin)

II.4. Sunda Shelf (incl. 'Tin islands', Singkep, Karimata) (38)

Abidin, H.Z. (2004)- An NW-SE trending zone of primary tin mineralization in North Bangka, Indonesia: geology, distribution and origin. Majalah Geologi Indonesia 19, 3, p. 173-185.
(Same as Abidin 2001. Reprinted in Metalogeni Sundaland Vol. I (2014), p. 161-174. A 17x2 km NW-SE trending belt in NE Bangka with several primary tin deposits: Air Jangkang, Merawang, Sambung Giri and Pemali. Mineralization at contact with Late Triassic- E Jurassic Klabat granites and Permo-Triassic Pemali Fm meta-sediment, or in sediment bedding planes. Greisen mineralization common within granite. Granite emplacement ages peak in 213-217 Ma. Ore minerals mainly cassiterite, also wolframite, monazite, magnetite, chalcopyrite, sphalerite galena and REE elements)

Abidin, H.Z. & S. Permanadewi (2003)- Greisen tin deposit in the Old Merawang mine, Bangka. Majalah Geologi Indonesia 18, 3, p. 175-184.
(Reprinted in Metalogeni Sundaland Vol. I (2014), p. 195-203. Old Merawang mine operated since 1950's. At contact coarse biotite granite and Triassic Tanjung Genting Fm clastic sediments. Cassiterite mineralization as as greisen, veins and dissemination)

Abidin, H.Z. & E. Rusmana (2004)- Wolframite associated with tin deposit in Bangka: prospect and origin. Majalah Geologi Indonesia 19, 1, p. 39-48.
(Reprinted in Metalogeni Sundaland Vol. I (2014), p. 205-215)
(Wolframite/ tungsten is most common mineral associated with tin deposits all over Bangka. Traditionally viewed as uneconomic, but may have value. Genetic origin similar to tin. Most common as late hydrothermal deposit in cracks and fractures of quartz veins in Triassic Tanjung Genting Fm sandstones)

Aryanto, N.C.D. & U. Kamiludin (2016)- The content of placer heavy mineral and characteristics of REE at Toboali coast and its surrounding area, Bangka Belitung Province. Bull. Marine Geol. 31, 1, p. 45-54.

(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/318/273)
(Bangka Island and surrounding areas major tin producer (cassiterite), but also heavy mineral placers (magnetite, ilmenite, zircon, apatite, monazite) and potential REE producer (La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, etc.). Tectonic environment of Toboali granitoid of S Bangka continental magmatic arc)

Aryanto, N.C.D. & U. Kamiludin (2016)- Heavy mineral placers and REE potential at the Bangka coasts and its surroundings. In: Proc. 52nd Annual Session Coord. Comm. Geoscience Progr. E and SE Asia (CCOP), Bangkok, p. 175-184.
(online at: www.ccop.or.th/download/as/52as2.pdf)
(Presence of REE minerals in beach sand and tin mining tailings in S Bangka island. Bangka granites subdivided in Klabat batholith in N (10 plutons; S-type,Late Triassic- M Jurassic; comparable to Main granite belt of Malay Peninsula) and Bebulu batholith in S (5 plutons; S and IS-types))

Aryanto, N.C.D., Nasrun, A.H. Sianipar & L. Sarmili (2005)- Granit Kelumpang sebagai granit Tipe-I di pantai Balok, Belitung. J. Geologi Kelautan 3, 1, p. 19-27.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/121/111)
('I-type Kelumpan Granite at Balok beach, Belitung'. In Bangka- Beliting region biotite-granites associated with cassiterite; no cassiterite mineralisation in hornblende granites. Kelumpang granite of SE Belitung hornblende granite, rich in K-feldspar megacrystic minerals, of I-type, and no cassiterite. Age E Jurassic?)

Aryanto, N.C.D., J. Widodo & P. Rahardjo (2003)- Keterkaitan unsur tanah jarang terhadap mineral berat ilmenit dan rutil perairan Pantai Gundi, Bangka Barat. J. Geol. Kelautan 1, 2, p. 13-18.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/95/85)
(The relationship between Rare Earth Elements and heavy minerals ilmenite and rutile in waters off Gundi Beach, West Bangka'. Niobium (Nb) and Tantalum (Ta) occur in association with ilmenite ($FeTiO_2$) and rutile (TiO_2) in near-coastal sands off SW Bangka)

Hantoro, W.S. (2018)- Sunda epicontinental shelf and Quaternary glacial-interglacial sea level variation and their implications to the regional and global environmental change. In: Global Colloquium on GeoSciences and Engineering 2017, LIPI, Bandung, IOP Conf. Series: Earth and Environmental Sci. 118, 012053, p. 1-12.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012053/pdf)
(Sunda Shelf epicontinental shallow shelf since Pliocene. Sedimentation and erosion cycles follow glacial-interglacial sea level variation cycles that periodically changed area to open land. During eustatic lowstands important river drainage systems from SE Asia in N (Gulf of Thailand) and system from Malay Peninsula, Sumatra, Bangka-Belitung and Kalimantan, named Palaeo Sunda River)

Helfinalis (1993)- Rekaman peristiwa transgressi dan regressi Holosen P. Belitung serta kenaikan suhu muka bumi dewasa ini. Proc. 22nd Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 1, p. 126-134.
('Records of transgression and regression events of Holocene P. Belitung and the rise in temperature of the Earth surface today'. Around Belitung island Holocene transgression from -65m at 11000 BP to +7.5m at 3700 BP, followed by regression until today. Ancient beach ridges and coral at +5.75m)

Hidayat, S. & H. Moechtar (2009)- Interaksi faktor kendali tektonik, permukaan laut dan perubahan iklim di daerah Teluk Klabat, Kabupaten Bangka Induk, Bangka. J. Sumber Daya Geologi 19, 1, p. 23-36.
('Interaction of tectonic, sea-level and climate change factors in the Klabat Bay area, Bangka Regency, Bangka'. Study of depositional facies/ thickness of Quaternary deposits off N Bangka island)

Hovig, P. (1923)- Over billitonieten, ertslaag en woestijnklimaat. Verhandelingen Geologisch-Mijnbouwkundig Genootschap Nederland Kol., Geol. Serie 7, p. 1-13.
(Discussion of Belitung glass tektites, found on top of bedrock ('kong'), below tin-bearing alluvial deposits. Mainly critique of Wing Easton (1921) suggestion that billitonites formed from colloidal solutions. Many billitonites have fragile small 'tables' on a stem, suggesting limited or no transport)

Ikhsan, N. & A.D. Titisari (2016)- Mineralogi dan geokimia granitoid Bukit Baginda, Pulau Belitung, Indonesia. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 469-484.
(online at: https://repository.ugm.ac.id/273552/)
('Mineralogy and geochemistry of Baginda Hill granitoid, Belitung Island'. Granitoids widespread on Belitung; in NW associated with tin deposits, in SW, at Baginda Hill, extremely low Sn content. Magmatic affinity of granitoid calk-alcaline, high K alkaline/ shoshonitic, I-type metaluminous. Rb versus Y+Nb and Nb versus Y suggest Baginda Hill granitoid is Volcanic Arc Granite, associated with subduction)

Ikuno T., A. Imai, K. Yonezu, K. Sanematsu, L.D. Setijadji et al. (2010)- Concentration and geochemical behavior of REE in hydrothermally altered and weathered granitic rocks in Southern Thailand and Bangka Island, Indonesia. Proc. Int. Symp. Earth Science and Technology, Fukuoka, p. 269-273.

Irzon, R. (2017)- Geochemistry of Late Triassic weak peraluminous A-type Karimun Granite, Karimun Regency, Riau Islands Province. Indonesian J. Geoscience 4, 1, p. 21-37.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/268/229)
(Late Triassic Karimun Granite on Karimun island S of Singapore differs from other felsic intrusive rocks in Malay Peninsula because of A-type affinity, although it is classified as part of Tin Islands)

Irzon, R., H.Z. Abidin, Baharuddin, P. Sendjadja & Kurnia (2017)- Kandungan Rare Earth Elements pada granitoid Merah Muda dari daerah Lagoi dan perbandingan dengan granitoid sejenis lain. J. Geologi Sumberdaya Mineral 18, 3, p. 137-146.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/238/290)
('Rare Earth Element content in pinkish granite of the Lagoi area and its comparison with similar rocks of other regions'. Triassic granite intrusions on Bintan Island part of Main Range Granite belt of SE Asia. Different colours of granite. Granite in Lagoi area of N Bintan (226 ± 8 Ma) pink color, with high REE content (av. 295 ppm)

Johari, S. (1986)- Relationship between Sn mineralization and geochemical anomalies in non-residual overburden at Tebrong area, Belitung, Indonesia. In: N. Thiramongkol (ed.) Proc. Workshop on Economic geology, tectonics, sedimentary processes and environment of the Quaternary in Southeast Asia, Haid Yai, Thailand 1986, IGCP 218/ Chulalongkorn University, Bangkok, p. 157-172.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1986/5083...)
(Tebrong area of E Belitung underlain by Triassic granite plutons and metasediments with low-grade Sn mineralization in swarms of subvertical quartz-tourmaline-cassiterite veins. Overlain by Quaternary cassiterite 'kaksa' placers)

Keller, G.H. (1966)- Sediments of the Malacca Strait, Southeast Asia. Ph.D. Thesis University of Illinois, p. 1-109.
(Sediments in Malacca Strait largely derived from adjacent land provinces of Sumatra and Malay Peninsula, with highly variable provenance. Dominant NW current due to movement of water into strait from S China and Java Seas and to lesser extent from Andaman Sea)

Kurnio,H. & N.C.D. Aryanto (2010)- Paleo-channels of Singkawang waters, West Kalimantan, and its relation to the occurrences of sub-bottom gold placers based on strata box seismic record analyses. Bull. Marine Geol. 25, 2, p. 65-76.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/26/26)
(Sunda shelf off W Kalimantan with Pleistocene incised valleys seen on shallow seismic lines may contain gold placer accumulations, derived from Sintang Intrusives)

Kusnida, D., P. Astjario & B. Nirwana (2008)- Magnetic susceptibilities distribution and its possibly geological significance of submerged Belitung granite. Indonesian Mining J. 11, 2, p. 24-31.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/592/454)

(Marine magnetic anomalies over Belitung waters, where zone of <50 nT total magnetic anomaly interpreted to reflect submerged Belitung granite. Correlation between magnetic susceptibility and type of granites indicated submerged Belitung intrusive is biotite-granite, associated with cassiterite minerals)

Ng, S.W.P., M.J. Whitehouse, M.H. Roselee, C. Teschner, S. Murtadha, G.J.H. Oliver, A.A. Ghani & S.C. Chang (2017)- Late Triassic granites from Bangka, Indonesia: a continuation of the Main Range granite province of the South-East Asian Tin Belt. J. Asian Earth Sci. 138, p. 562-587.
(SE Asian Tin Belt tied to arc-related Eastern granite province and collision-related Main Range granite provinces, running across Thailand, Singapore and Indonesia, and separated by Paleo-Tethys sutures. E Province usually granites with biotite ± hornblende; Main Range granites sometimes characterised by biotite ± muscovite. On Indonesian Tin Islands both hornblende-bearing (previously I-type) and hornblende-barren (previously S-type), apparently randomly distributed. Bangka granites geochemically similar to Malaysian Main Range granites, with zircon U-Pb ages of ~225 Ma and ~220 Ma, within time of Main Range magmatism (~226-201 Ma) in Malay Peninsula. This suggests Paleo-Tethyan suture lies E of Bangka island)

Notosiswojo, S. & M.B. Sugeng (1987)- Primary tin mineralization in granite intrusion at Tempilang, Bangka Island. In: W. Gocht (ed.) Proc. Seminar on Importance of primary tin mining in Southeast Asia, Bandung 1986, Intertechnik 28, Aachen, p. 77-90.

Osberger, R. (1968)- Drilling for placer tin in Indonesia. Mining Magazine 118, 5, p. 306-313.

Pardiarto, B. (2016)- Karakteristik cebakan timah primer di daerah Parit Tebu, Kabupaten Belitung Timur, Provinsi Kepulauan Bangka Belitung. Bul. Sumber Daya Geologi 11, 2, p. 73-91.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Characteristics of primary tin reserves in the area of Parit Tebu, East Belitung Regency'. Primary tin mineralisation in quartz veins, hosted by quartz-arenite sandstone and metaclaystone, intruded by aplitic granite. Tin mineral cassiterite associated with realgar, molybdenite, pyrite, sphalerite, galena, etc.)

Raes, N., C.H. Cannon, R.J. Hijmans, T. Piessens, Leng Guan Saw, P.C. van Welzen & J.W. F. Slik (2014)- Historical distribution of Sundalandǒs Dipterocarp rainforests at Quaternary glacial maxima. Proc. National Academy Sciences USA 111, 47, p. 16790-16795.
(online at: www.pnas.org/content/111/47/16790.full.pdf)
(Climate of C Sundaland during Late Pleistocene Last Glacial Maximum suitable to sustain Dipterocarp rainforest; presence of previously suggested transequatorial savannah corridor at that time unlikely. Dipterocarp species richness lower at LGM, and areas of high species richness mostly off current islands and on emergent Sunda Shelf)

Rahman, M.M., E. Sathiamurthy, G. Zhong, J. Geng & Z. Liu (2016)- CHIRP acoustic characterization of paleo fluvial system of Late-Pleistocene to Holocene in Penyu Basin, Sunda Shelf. Bull. Geol. Soc. Malaysia 62, p. 47-56.
(online at: https://gsmpubl.files.wordpress.com/2017/04/bgsm2016007.pdf)
(Shallow acoustic profiles across paleo-incised valleys in Penyu Basin, S China Sea, formed during several phases of Late Pleistocene regression and subsequent Last Glacial Maximum when sea level was ~123m lower than present-day. Valleys filled during lowstand and subsequent post-glacial marine transgression. Holocene shallow-marine cover (3-10m thick) healed ravinement surface. Average late-Pleistocene surface 53-64m below present-day MSL, with ~16-50m of valley incision)

Rahman, M.M., E. Sathiamurthy, G. Zhong, J. Geng & Z. Liu (2018)- Variations of fluvial patterns and infilling history of a paleoincised valley system during Late Pleistocene to Holocene, Offshore Pahang River, Peninsular Malaysia. Interpretation 6, 1, p. T39-T50.
(Pahang River paleovalleys in S China Sea formed during regressive phase of last glacial cycle, and submerged and filled during postglacial marine transgression. Valley fills overlain by marine transgressive ravinement surface and 5-10m thick Holocene shallow marine deposits. Low-sinuosity lowstand valley system changed to

high-sinuosity meander belt and eventually into deltaic distributary channel system, before submergence. Average Late Pleistocene surface between 53-64m below sea level, with ~16-50 m of valley incision)

Roselee, M.H., A.A Ghani, S. Ng Wai Pan, S. Murtadha, G.J.H. Oliver, Quek Long Xiang &M.R. Umor (2017)- Geochemistry of Bangka granites, Bangka Island, Sumatera, Indonesia. Proc. 30th Nat. Geosc. Conf. Exhib. (NGC 2017), Kuala Lumpur, PDRG29-171, Warta Geologi 43, 3, p. 326. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_032.pdf)
(Bangka Island granites show evidence of mixed source of greywacke and amphibolite and formed in syn-collisional tectonic setting. Geochemistry of Bangka granites comparable to Main Range granite of Malay Peninsula, although overlapping fields between Main range and East Malaya- Sukhotai granites. Bangka Island is S-ward continuation of Malaysia Main Range granite province)

Rueb, J. (1915)- Ontstaan der alluviale tinerts afzettingen van Banka en Billiton. De Ingenieur 1915, 5, p.
('The origin of the alluvial tin ore deposits of Bangka and Belitung'. Discussion origin of two types of alluvial tin ore: 'koelit' (rel. in place weathered granite material; mainly formed in period of dry-warm climate) and 'kaksa' (erosional products transported by rivers))

Sathiamurthy, E. & M.M. Rahman (2017)- Late Quaternary paleo fluvial system research of Sunda Shelf: a review. Bull. Geol. Soc. Malaysia 64 (Geol. Soc. Malaysia 50th Anniversary Issue 2), p. 81-92.
(online at: http://www.gsm.org.my/products/702001-101716-PDF.pdf)
(Review of Late Pleistocene paleo-fluvial system on Sunda Shelf (first identified by Molengraaff, 1921). Regional reconstruction mainly based on modern sea floor bathymetry)

Setiady, D. & Faturachman (2004)- Tipe granit sepanjang pantai timur Pulau Batam dan pantai barat Pulau Bintan, perairan selat Batam Bintan. J. Geologi Kelautan 2, 2, p. 9-14.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/109/99)
('Granite types along the east coast of Batam Island and the west coast of Bintan Island, in waters of the Batam Bintan strait'. Granites of Batam and Bintan mainly S-type granites?)

Simamora (2007)- Penafsiran struktur bawah permukaan daerah Bangka Utara, berdasarkan anomali gaya berat. J. Sumber Daya Geologi 17, 3, p. 163-177.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/287/2580)
('Interpretation of subsurface structure of the North Bangka region, based on gravity anomalies' Identification of Pemali Fm Paleozoic basement and lighter Triassic granite intrusions across N Bangka island)

Soehaimi, A. & H. Moechtar (1999)- Tectonic, sea level or climate controls during deposition of Quaternary deposits on Rebo and Sapur nearshores, East Bangka- Indonesia. In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 1, p. 91-101.
(Survey of tin-bearing alluvial and fluvial deposits off NE Bangka island)

Van Overeem, A.J.A. (1960)- Geological control of dredging operation on placer deposits, Billiton, Indonesia. Geologie en Mijnbouw 39, 10, p. 458-463.
(Not much on geology)

Van Wees, H. & C.P. de Vente (1984)- The primary tin-magnetite deposit of Gunung Selumar, Belitung Island, Indonesia: interim results of an exploration research study and ore genetic implications. SE Asia Tin Research Development Centre (SEATRAD), Ipoh, Report 22, p. 1-77. *(Unpublished)*

Wang, X.M., X.J. Sun, P.X. Wang & K. Stattegger (2009)- Vegetation on the Sunda Shelf, South China Sea, during the Last Glacial Maximum. Palaeogeogr. Palaeoclim. Palaeoecology 278, p. 88-97.
(online at: http://ocean.tongji.edu.cn/pub/pinxian/eng/2009-04.pdf)
(Pollen from Sonne 1996 cruise sediment cores along paleo-valley of North Sunda River on Sunda Shelf of southern S China Sea. During Last Glacial Maximum (22-16 ka) high percentages of pollen from lowland rain

forests and lower montane rainforests, suggesting exposed shelf covered with humid vegetation. Marshy vegetation in valley along N Sunda River. Climate during LGM inferred from vegetation cooler today, but no significant decrease in humidity recorded)

Widana, K.S. & B. Priadi (2015)- Karakteristik unsur jejak dalam diskriminasi magmatisme granitoid Pulau Bangka. Eksplorium 36, 1, p. 1-16.
(online at: http://jurnal.batan.go.id/index.php/eksplorium/article/view/2766/pdf)
('Characteristics of trace elements in granitoid magmatism discrimination on Bangka Island'. Klabat granitoids on Bangka Island studied for trace elements. Granitoids in E (Belinyu) and C Bangka display crust-mantle mixing with calc-alkaline affinity, characteristic of I type(='Eastern Province'?). In S and W Bangka granitoids high K calc-alkaline and of S type (= 'Main Range'?))

Widana, K.S., B. Priadi & Y.T.Handayani (2014)- Profil unsur tanah jaring granitoid Klabat di Pulau Bangka dengan analisis aktivasi neutron. Eksplorium 35, 1, p. 1-12.
('Rare Earth Elements profile of Klabat Granitoid in Bangka Island by neutron activation analysis')

Zulfikar, M. & N.C.D. Aryanto (2016)- The study of seafloor tin placer resources of Quaternary sediment in Toboali waters, South Bangka. Bull. Marine Geol. 31, 2, p. 67-76.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/285/275)
(Boomer shallow seismic survey off S coast of Bangka to determine Quaternary sediment thickness (5-20ms))

II.5. Natuna, Anambas (10)

Arif, F. & C. Kenyon (2017)- Lama play assessment based on reservoir effectiveness using structural evolution modeling in Natuna A Block. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 8p.
(Play assessment of Eo-Oligocene early syn-rift Lama Fm quartz-rich fluvio-lacustrine clastics in Natuna A Block. Due to deep burial, reservoir effectiveness critical risk (especially due to quartz cementation. Two main erosion events: (1) base Miocene (Base Arang shale; ~25 Ma); (2)M Miocene unconformity (~16- 11 Ma). Sweet spots for Lama Play at rift flexural margin)

Darmadi, Y. (2005)- Three-dimensional fluvial-deltaic sequence stratigraphy Pliocene-Recent Muda Formation, Belida field, West Natuna Basin, Indonesia. M.Sc. Thesis, Texas A&M University, p. 1-72.
(online at: oaktrust.library.tamu.edu/bitstream/.../etd-tamu-2005C-GEOP-Darmadi.pdf)
(Pliocene-Recent Muda interval in W Natuna Basin contains five 3rd-order sequences, with depositional environments confined to shelf and consisting mainly of fluvial elements)

Darman, H. (2017)- Seismic expression of key geological features in the East Natuna Basin. Berita Sedimentologi 38, p. 50-61.
(online at: https://drive.google.com/file/d/0B35lLH-Cki2NV01LNEVCcGl2Z2M/view)
(Examples of reional seismic lines across East Natuna basin rifts and highs with carbonate buildups)

Indranadi, V.B., Y. Indra, A. Rifai, A. Saripudin, F. Kamil & R. Waworuntu (2018)- Outcrops in Natuna Island: new insights of reservoir potential and sediment provenance of the East Natuna Basin. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-319-G, 9p.
('Basement' outcrops on Natuna Islands Jurassic- E Cretaceous ophiolite (peridotite-gabbro- basalt) and (NE-dipping?) ?Cretaceous melange/ subduction complex of Bunguran Fm in SW, with intensely folded deep marine pelagic siltstones, radiolarian cherts and tuffs, and sandstones in scaly clay matrix. In NE and E intruded by Late Cretaceous granodiorites (~71-73 Ma) in Ranai area. Pre-Tertiary overlain by Tertiary fluvial-shallow marine basal conglomerates, stacked sandstones and interbedded siltstone-claystone. Sandstones mostly sub-litharenites, dominated by quartz, chert and metamorphic fragments, of good potential reservoir quality)

Jagger, L.J. & K.R. McClay (2018)- Analogue modelling of inverted domino-style basement fault systems. Basin Research 30, Suppl. 1, p. 363-381.
(Includes previously unpublished figure showing West Natuna M-L Eocene - Oligocene half-grabens, inverted in ?MMiocene time)

Kurniawan, B.A., A.E. Harahap & I.Y. Syukri (2017)- Fundamental work flow for improving static model using seismic data case study: Upper Gabus zones in Kerisi Field. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-682-G, 24p.
(Seismic- geologic study of Late Oligocene Upper and Lower Gabus Fm channelized sandstone reservoirs in 1990 Kerisi oil field in Block B)

Murti, N.A. & Minarwan (2000)- Natuna. In: H. Darman & F.H. Sidi, F. H. (eds.) An outline of the geology of Indonesia, Indonesian Geologists Association (IAGI), Spec. Publ., p.

Ozza, T., M. Mazied, F.H. Korah, M. Arisandy, H.I. Darmawan, I W.A. Darma, B.P. Putra & W.N. Farida (2018)- Geochemistry analysis and petroleum system modeling for "X" Block, West Natuna Basin. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-417-G, 18p.
(Geochemistry and hydrocarbon charge/ entrapment model for "X" Block close to NW tip of West Natuna Basin and with several inverted half-grabens (Anoa, Gajah, Kakap, Kambing) that delivered hydrocarbon charge. Inversion structures started at ~21 Ma; M Miocene erosion up to 1000m. Oil biomarkers indicate (Paleogene) lacustrine source facies. In deep grabens hydrocarbon expulsion started at 37, 31 Ma)

Rachmad, A., Djuhaeni & P. Sumintadireja (2017)- Tektonostratigrafi dan sikuen stratigrafi endapan lisu Blok Duyung, Cekungan Natuna Barat. Bulletin of Geology (ITB) 1, 2, p. 94-106.
(online at: http://buletingeologi.com/index.php/buletin-geologi/article/view/7/3)
('Tectonostratigraphy and sequence stratigraphy of rift deposits, Duyung Block, West Natuna Basin'. Stratigraphy of Lower Gabus Fm LateOligocene fluvial-deltaic-lacustrine syn-rift deposition in Duyung Block, W Natuna Basin. Syn-rift depositional system 3 sequences)

Riadini, P., A.B. Ritonga, F. Arif, Abdurahman & Budiyono (2017)- Structural evolution and hydrocarbon traps mechanism in the West Natuna Basin, Indonesia. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-522-G, 18p.
(W Natuna Basin Late Eocene- E Oligocene rifting, NNE-SSW trending inversion structures around M-Late Miocene boundary (right-lateral transpression), etc.)

III. JAVA, MADURA, JAVA SEA (379)

III.1. Java - General, Onshore geology, Forearc (273)

Abdurrokhim (2014)- A prograding slopeï shelf succession of the Middle- Late Miocene Jatiluhur Formation: sedimentology and genetic stratigraphy of mixed siliciclastic and carbonate deposits in the Bogor Trough, West Java. Ph.D. Thesis Graduate School of Science Chiba University, Japan, p. 1-134.
(online at: http://opac.ll.chiba-u.jp/da/curator/900117817/SGB_0019.pdf)
(Sedimentological study of M Miocene Jatiluhur Fm in N Bogor Trough, NE of Bogor. Lower and M Jatiluhur Fm interpreted as M Miocene S-ward prograding slope-shelf system, derived from Sundaland. Late Miocene deposits also suggest additional supply of volcanogenic sediments from volcanic terranes to S. Klapanunggal Limestone in middle part of formation with Katacycloclypeus and coral))

Abdurrokhim (2017)- Carbonate reef of the Klapanunggal Formation in the Bogor Trough, West Java. J. Geol. Sciences Applied Geology (UNPAD) 2, 1, p. 33-42.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/13422)
(On Late Miocene shelf-margin carbonate reef up to 240m thick, well exposed in Cibinong area, NE of Bogor, named Klapanunggal Fm. Thick and massive reefal limestone with large foraminifera. Interpreted a S-prograding shelf margin, facing Bogor Trough in S (with picture of Katacycloclypeus annulatus, suggesting Middle Miocene age;HvG))

Abdurrokhim, Y. Firmansyah, N. Natasia & M. Saputra (2017)- Lithofacies of the Halang Formation in the Cijurey River-Majalengka. J. Geol. Sciences Applied Geology (UNPAD) 2, 3, p. 83-87.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/15614/7343)
(450m thick section of M-L Miocene Halang Fm exposed along Cijurey River. Lithofacies interpreted as mass transport deposits (no maps and not much other detail))

Adeyosfi, M.M., A. Pradana, M. Wahdanadi, A.H. Purwanto, Muhajir & D. Juandi (2018)- Single well to field scale secondary porosity characterization in carbonate reservoir of Tuban Formation. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-224-G, 17p.
(E Miocene carbonates of Tuban Fm in Sukowati Field, NE Java basin, produced oil and gas since 2004. Two carbonate build ups, with different productivity rates. Highest productivity in N of field, with better-developed secondary porosity)

Adhiperdana, B. G. (2018)- Sedimentological study of a fluvial succesion of the Eocene-Oligocene Bayah Formation, West Java: reconstruction of paleohidrological features of an ancient fluvial system using empirical equations developed from modern fluvial systems in the Indonesian islands. Doct. Thesis Chiba University, Japan, p. *(Unpublished)*

Ahdyar, L.O., R.P. Sekti & I.M. Kerscher (2017)- Stratigraphic interpretation of Alas Tua west: a carbonate structure in Cepu Block, East Java. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-738-G, 11p.
(2011 Alas Tua W1 well in E Java Basin discovered gas in ~300m Early Oligocene platform carbonates overlain by ~200m of Late Oligocene deeper water marls)

Akbar, M.A. & N I. Setiawan (2015)- Petrogenesis batuan beku intrusi di daerah perbukitan Jiwo Barat dan Timur, Kecamatan Bayat, Kabupaten Klaten, Provinsi Jawa Tengah. Pros. Seminar Nasional Kebumian 8, Jurusan Teknik Geologi, Universitas Gadjah Mada, Yogyakarta, p. 675-683.
(online at: https://repository.ugm.ac.id/135503/1/...)
('Petrogenesis of igneous rock intrusions in the West and East Jiwo hills, Bayat District, Klaten, Central Java'. Three types of igneous rocks in Jiwo Hills: olivine gabbro (in SW), micro gabbro(W and E) and diorite (Gunung Pendul in W and Gunung Dowo, Butak and Desa Drajet in W Jiwo))

Akmaluddin (2011)- Cenozoic chronostratigraphy and paleoceanography of Southern Mountains, Central Java, Indonesia. Doct. Thesis, Kyushu University, Fukuoka, p. *(Unpublished)*

Akmaluddin & M.F. Al Hafizh (2017)- Stratigrafi dan biostratigrafi Formasi Sentolo bagian Atas. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
('Stratigraphy and biostratigraphy of the Upper Sentolo Formation'. U Sentolo in section near Kaliagung Village, SW of Sentolo, C Java, 24m thick , mainly calcareous sandstone. Age Late Pliocene (N20-N21))

Akmaluddin, A.R. Perdana, A.N. Fadhillah, Z. Nadirah & A. Hafiz (2017)- Studi awal kelimpahan fosil moluska pada Formasi Sentolo bagian atas. Proc. 10th Seminar Nasional Kebumian, Dept. Teknik Geologi, Universitas Gadjah Mada (UGM), Yogyakarta, PSP-10, p. 895-911.
(online at: https://repository.ugm.ac.id/274228/1/PSP-10.pdf)
('Preliminary study of abundance of fossil molluscs in the upper Sentolo Formation'. Molluscs in Late Pliocene (N20-N21) part of Sentolo Fm NW of Kaliagung village, Kulon Progo, C Java: 10 species of gastropods (incl. Corbicula gerthi, Conus spp., Amnicola, Sulcospira, Cypraea) and 5 species of pelecypoda (incl. Anomia boettgeri, Paphia cheribonensis, Meretrix, Pallium, Anadara). Most species shallow marine and transitional)

Akmaluddin & R.N. Saputra (2014)- Umur Formasi Kebo Butak berdasarkan nanofosil gampingan daerah Bayat, Kab. Klaten, Provinsi Jawa Tengah. Proc. 7th Nat. Seminar Nasional Kebumian, Jurusan Teknik Geologi, Universitas Gadjah Mada, Yogyakarta, M4P-07, p. 874-885.
(online at: https://repository.ugm.ac.id/135168/1/874-885%20M4P-0.pdf)
('Age of the Kebo Butak Formation based on calcareous nannofossils in the Bayat area, Klaten District, C Java'. Kebo Butak Fm of S Mountains of E Miocene age. Tegalrejo-Cermo section with Cyclicargolithus floridanus, Sphenolithus ciperoensis and Dictyococcites bisecta (zone NN1, earliest Miocene) and Discoaster druggii (zone NN2). Basal Karangnongko section with Sphenolithus heteromorphs and S. belemnos (NN4))

Amijaya, D.H., N. Adibah & A.Z.A. Ansory (2016)- Lithofacies and sedimentation of organic matter in fine grained rocks of Nanggulan Formation in Kulon Progo, Yogyakarta. J. Applied Geology (UGM) 1, 2, p. 82-88.
(online at: https://journal.ugm.ac.id/jag/article/view/26964/16605)
(Eocene shale at Nanggulan, south C Java, potential shale gas source. Deposited in estuarine to shallow marine environments. Core samples show TOC 0.36-1.0 % for shales and 12.8 % for coaly shales. Estuarine E Eocene higher TOC. Volcanic activity in M Eocene caused lower organic content)

Amijaya, H. & P.A. Pameco (2017)- Geochemistry of natural gas seepages in Boto Area, Bancak, Semarang, Central Java. Indonesian J. Geoscience 4, 2, p. 61-70.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/327/233)
(Gases from surface seeps in W Kendeng zone SE of Semarang and NE of Salatiga thermogenic gases with 53-85% methane, 10-35% N2, etc. Possibly derived from humic (coaly) organic matter))

Andreas, H., H.Z. Abidin, T.P. Sidiq, I. Gumilar, Y. Aoki, A.L. Hakim & P. Sumintadiredja (2017)- Understanding the trigger for the LUSI mud volcano eruption from ground deformation signatures. In: P. Cummins & I. Meilano (eds.) Geohazards in Indonesia: Earth science for disaster risk reduction, Geol. Soc, London, Spec. Publ. 441, p. 199-212.
(online at: http://www.eri.u-tokyo.ac.jp/people/yaoki/2017GSLSP.pdf)
(LUSI mud volcano in Sidoarjo, E Java, started to erupt on 29 May 2006, 200 m from drilling Lapindo oil-gas well, and continues to erupt. Ground deformation data from GPS monitoring do not support triggering of LUSI eruption by reactivation of underlying fault due to Yogyakarta earthquake)

Andreini, J., M.P. Bunds, R.A. Harris, E. Yulianto, D.M. Horns, C. Prasetyadi & P.S. Putra (2016)- Assessment of differential uplift along South Java, Indonesia from terrace elevations mapped with structure from motion photogrammetry. AGU Fall General Assembly 2016, Abstract #EP21D-0911, 1p.
(online at: http://adsabs.harvard.edu/abs/2016AGUFMEP21D0911A)
(Four Quaternary marine terraces identified along S coast of Java: T1 0-.05m, T2 2m, T3 17m, T4 22 m, suggest late Quaternary uplift of 0.17 mm/yr)

Andriany, S.S., M.F. Rosana & A. Hardiyono (2016)- Geowisata geopark Ciletuk: geotrek mengelilingi keindahan mega amfiteater Ciletuh. Bull. Scientific Contr. (UNPAD) 14, 1, p. 75-88.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/9796/pdf)
('Geotourism of the Ciletuh geopark: geotrek around the mega beauty of the Ciletuh amphitheater')

Angeles, C.A., S. Prihatmoko & J.S. Walker (2001)- Discovery history of the Cibaliung gold project, Banten, Indonesia. Proc. Indonesian Mining Conf. Exhibition, Jakarta, p. 1B33-IB39.
(High-grade, epithermal gold-silver deposits near Pandeglang, Banten, W Java)

Ansori, A.Z.A. & D.H. Amijaya (201)- Proses pengendapan dan lingkungan pengendapan serpih Formasi Nanggulan, Kulon Progo, Yogyakarta, berdasarkan data batuan inti. Proc. 7th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 708-720.
(online at: https://repository.ugm.ac.id/135165/1/708-720%20M4O-03.pdf)
(Depositional processes and setting of shales of the Nanggulan Formation, Kulon Progo, Yogyakarta, based on core data'. Depositional environment of Nanggulan Fm upward deepening, from fluvial to tide-dominant estuarine to shallow marine)

Ansori, C., Sujatmiko & H. Permana (2000)- Giok Jawa dari wawasan Karangsambung, Kebumen, Jawa Tengah, dan pemanfaatannya. Proc. 29th Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 2, p. 157-163.
('Java jade from the Karangsambung area, Kebumen, Central Java, and its utilization')

Anugrahadi, A., Y. Surachman D., S. Mulyono, E. Triarso, D. Muljawan, S. Hidayat, A. Lesanpura et al. (1999)-Oblique subduction zone in the southern West Java offshore. In: I. Busono & H. Alam (eds.) Developments in Indonesian tectonics and structural geology, Proc. 28th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 1, p. 73-82.
(In Indonesian. Some results of BGR SONNE cruise 1998-1999)

Ardhito, Y. (2013)- Biostratigrafi nannofossil gampingan, lintasan Gunung Temas dan Gunung Lanang Kecamatan Bayat, Kabupaten Klaten, Propinsi Jawa Tengah. S1 Thesis, Universitas Gadjah Mada, p. 1-143.
(Unpublished; see also Akmaluddin and Ardito 2014))
(parts online at: http://etd.repository.ugm.ac.id/...)
('Biostratigraphy of calcareous nannofossils of the Mount Temas and Gunung Lanang sections, Bayat District, Klaten Regency, Central Java'. Oyo Fm at Gunung Lanang section 4 zones (NN7- NN10), Gunung Temas two zones (NN10- NN11) (= Late Miocene). Paleoclimate: overall cooling, with four warming-cooling events)

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(Planktonic foraminifera assemblages in Late Miocene (N16-N17; ~8.6-6.1 Ma) part of Sentolo Fm in Jurang-Banjarharjo and Kalibawang sections, W Progo Hills, C Java, suggest paleoclimate fluctuations: Zone I warm (>~ 8.6 Ma); zone II cooling around ~7-8.6 Ma (cold peak at ~8 Ma); Zone III warming around ~ 6.1- 7 Ma (warm peak ~7 Ma) and Zone IV re-warmed to cool down at <~ 6.1 Ma. Pattern comparable to observations in Kepek Fm (S Mountains) on, Kerek Fm (Kendeng Zone) and ODP 806 in Pacific Ocean)

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(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012031/pdf)
(Re-examination of Preangerian and Odengian Java molluscan stages of Oostingh (1938), in outcrops of W Java. Preangerian stage represented by exposures along Cijarian, Citalahab rivers (M Miocene (N9-N14); Odengian stage in Cijariang river M Miocene- middle Late Miocene (N9-N16). The Nyalindung Fm in Cijarian river also contains Vicarya verneulli, an index fossil that marks global rise in sea level in M Miocene (12 Ma))

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('Fault structure in the western part of Java Island based on the results of geological interpretations'. Brief review of four major fault trends in Tertiary of W Java. E-W trending faults most common and mainly reverse faults, and of late Tertiary age and formed in N-S directed compressional system. Other faults (N-S, NW-SE and NE-SW) formed simultaneously with thrust fold belt structures, generally as strike slip faults or oblique transtensional or transpressional faults)

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(Baribis Fault in W Java continuation of E Java Kendeng zone N-directed thrust fault zone. Older than Plio-Pleistocene tectonics)

Haryanto, I., J. Hutabarat, A. Sudrajat, N.N. Ilmi & E. Sunardi (2017)- Tektonik sesar Cimandiri, Provinsi Jawa Barat. Bull. Scientific Contr. (UNPAD) 15, 3, p. 255-274.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/15103/pdf)
('Tectonics of the Cimandiri Fault, West Java'. WSW-ENE trending Cimandiri fault from Pelabuhan Ratu to Jampang to Rajamandala, etc. Formed at end of M Eocene, initially as thrust fault that developed paleo high and uplifted Ciletuh Formation in forearc basin. Evolved into normal fault today)

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(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/11/FULLPAPER_Iyan-POSTER.pdf)
(Two major fault patterns in Java: (1) NE-SW trending, related to Cretaceous subduction activity and (2) E-W trending, associated with Tertiary subduction. NE-SW trending faults caused formation of highs and basins, like Biliton Basin, Bawean Basin, Karimun High, etc; E-W fault pattern caused formation of fore arc basins, volcanic ridges and back arc basins. Tertiary subduction reactivated Cretaceous fault patterns and produced N-S faults, forming highs and lows like Sunda Basin, NW West Java Basin, Tanggerang High, Ujungkulon Basin and High, Bayah High, etc.)

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(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2015/03/HIPOTESIS-MENGENAI-SEJARAH-TUMBUKAN-LEMPENG-ZAMAN-KAPUR.pdf)
('Hypotheses about the history of the Cretaceous plate collision in western Indonesia'. Cretaceous subduction along Java and SE Kalimantan started by double subduction. Eurasian and Australian-origin plates with subduction under both margins were separated by narrow oceanic plate. Late Cretaceous collision produced Ciletuh, Rajamandala, Billiton, Bawean and Meratus highs)

Hastuti, E.D.W. (2017)- The study of ore minerals parageneses in Ponorogo area, East Java. In: Sriwijaya Int. Conf. Engineering, Science and Technology (SICEST 2016), MATEC Web of Conferences 101, 04018, p. 1-6.
(online at: /www.matec-conferences.org/articles/matecconf/pdf/2017/15/matecconf_sicest2017_04018.pdf)
(Mineralisation in Oligocene-E Miocene rocks in Ponorogo District, S Mountains at least two stages: (1) early hypogene processes, with pyrite-sphalerite-chalcopyrite-magnetite-galena; (2) later supergene enrichment with pyrite-sphalerite-covelite-bornite-limonite. Assemblages probably formed at ~100-360°C)

Heide, F. (1939)- Uber Tektite von Java. Zentralblatt Mineralogie Geol. Palaont., 1939 A, p. 199-206.
('About tektites from Java')

Hendrizan, M. (2016)- Nutrient level change based on calcareous nannofossil assemblages during Late Miocene in Banyumas Subbasin. Indonesian J. Geoscience 3, 3, p. 173-183.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/332/225)
(Late Miocene of Kali Pasir outcrop section, Banyumas, C Java, with abundant Discoaster (D. brouweri) and large Reticulofenestra in muddy facies of early Late Miocene (NN8-NN10a) representing deep thermocline. Decreasing Discoaster and small Reticulofenestra in turbiditic section of later part of Late Miocene (NN10b-NN11) indicate shallow thermocline/ nutricline. Strong eutrophication in Kali Pasir section probably driven by increased nutrient-rich terrestrial material, related to onset of Indian monsoon in Late Miocene/8-9 Ma)

Hendrizan, M. (2018)- A review of biostratigraphic studies in the olistostrome deposits of Karangsambung Formation. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conf. Series, Earth Environm. Science 118, 012011, p. 1-5.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012011/pdf)
(Age of Karangsambung Fm olistostrome deposits in C Java Oligocene, based calcareous nannofossils from matrix. Older reported ages (M-L Eocene, etc.) probably reworked)

Hendrizan, M., Praptisih & P.S. Putra (2009)- Kajian terbaru lingkungan pengendapan Formasi Batuasih berdasarkan kandungan foraminifera: studi kasus daerah Sukabumi, Propinsi Jawa Barat. Proc. 38th Ann. Conv. Indon. Assoc. Geol. (IAGI), Semarang, 12p.
('A recent study on the depositional environment of the Batuasih Formation based on foraminifera content: a case study in the Sukabumi area, West Java Province'. Batuasih marls with E Oligocene planktonic foraminifera. Same as Hendrizan et al. 2012, below))

Hirawan, A., A.S.V. Bangun, R.B. Pratiwi & A.D Titisari (2017)- Characteristics of basaltic pillow lava in Jarum Village, Bayat: magma evolution and petrogenetic model. Proc. 10th Seminar Nasional Kebumian, Dept. Teknik Geologi, Universitas Gadjah Mada (UGM), Yogyakarta, OVK-08, p. 1395-1413.

Husein, S., J. Jyalita & M.A.Q. Nursecha (2013)- Kendali stratigrafi dan struktur gravitasi pada rembesan hidrokarbon Sijenggung, Cekungan Serayu Utara. In: Proc. 6th Seminar Nas. Kebumian, Teknik Geologi Universitas Gadjah Mada, Yogyakarta 2013, p. 474-489.
(online at: https://repository.ugm.ac.id/135210/1/474-489%20S03.pdf)
('Stratigraphic control and gravity structure at the Sijenggung hydrocarbon seepage, North Serayu Basin'. N Serayu basin of C Java with many oil and gas seeps, indicative of active petroleum system. In Sijenggung Village (Banjarmangu District) surface seepage in outcrop of E-M Miocene Rambatan Fm. Dominant deformation of Rambatan Fm is gravity sliding to NNE in extensional regime)

Husein, S., M. Sakur & A. Setianto (2016)- Sebaran perlipatan en echelon pada antiklinorium Rembang. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 70-82.
(online at: https://repository.ugm.ac.id/273465/)
('Distribution of en echelon folding on the Rembang anticlinorium'. N Rembang anticlinorium of NE Java composed of E-W trending inverted folds arranged in ENE-WSW en echelon pattern, indicating reactivation of ENE-WSW trending basement fault. Two tectonic phases: (1) N-S compression (Pliocene), causing en-echelon folds and NE-SW sinistral shear; (2) NW-SE directed extension, causing formation of normal faults)

Hutabarat, J. (2011)- Karakteristik geokimia dan petrologi batuan volkanik Jatibarang di Jawa Barat Utara serta implikasinya terhadap sistem volkanisme Paleogen. Doct. Thesis Inst. Teknologi Bandung (ITB), p. 1-184.
('Geochemical and petrological characteristics of Jatibarang volcanic rocks in NW Java and its implications for the Paleogene volcanic system'. Jatibarang Fm composed of basalt, andesite and tuff, formed in NE-SW tranding continental arc subduction system. Pb isotopes suggest magma source with mixed oceanic and sediments components. K-Ar ages show two volcanic stages: (1) ~57.8- 50.3 Ma (Late Paleocene), dominated by tuffs; (2) 47- 39.2 Ma (M Eocene), lava-dominated in terrestrial environment. Calc-alkaline, potassic calc-alkaline to shoshonitic affinity)

Hutabarat, J. (2016)- Geokimia batuan volkanik Formasi Cikotok di segmen utara kubah Bayah, Banten. Bull. Scientific Contr. (UNPAD) 14, 2, p. 195-204.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/10963/pdf)
('Geochemistry of the Cikotok Formation volcanic rocks in the northern segment of the Bayah dome, Banten'. Cikotok Fm volcanics of Bayah Dome, SW Java, part of mid-Tertiary 'Old Andesites'. Geochemistry of andesite and basalt lavas suggests formation in island arc setting: SiO2 48-58%, Al2O3 12.5-17.2%, TiO2 0.5- 0.81%)

Idrus, A. & E. Handayani (2017)- Geology and characteristics of low sulphidation epithermal vein in Senepo area, East Java. Indonesian Mining J. 20, 2, p. 93-103.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/274/266)
(Senepo epithermal mineralization prospect in Southern Mts of C Java. Low sulphidation epithermal quartz vein, hosted by Oligo-Miocene andesite. Veins N-S-trending, 1-2m thick, with low Au, Ag, chalcopyrite, sphalerite, galena, hematite, covellite and malachite, etc.. Probably originated at 300-425m paleodepth)

Ilmi, N.N. & A. Ramadian (2018)- Karakteristik geokimia batuan induk Formasi Walat, Kabupaten Sukabumi , Provinsi Jawa Barat. Bul. Sumber Daya Geologi 13, 1, p. 31-43.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_13_NO_1_2018_3/pdf)
('Geochemical characteristics of source rocks of the Walat Formation, Sukabumi Regency, West Java'. On hydrocarbon source potential of Late Eocene- E Oligocene Walat Fm. Formation currently in mature stage (Tmax 439-458 °C), with fair-very good organic matter richness (TOC up to 3.7%) and mainly Type III gas-prone kerogen)

Indah, M.S., M. Natsir, F. Suwidiyanto, B. Parikesit & D. Kadar (2017)- Reconstruction chronostratigraphy for carbonate reservoirs surrounding wrench fault zone of RMKS, Sakala sub-basin, East Java Basin, Indonesia. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
(Summary of biostratigraphic correlation project around Rembang-Madura- Kangean- Sakala wrench fault zone. Not much detail)

Ismayanto, A.F., J.V. Rowland & J.D. Eccless (2016)- Structural characteristics of geothermal fields in West Java, Indonesia; insight from regional dataset analysis. Proc. 38th New Zealand Geothermal Workshop, Auckland, 6p.

Isnaniawardhani, V. & Nurdrajat (2015)- Miocene planktonic foraminiferal biodatum of the Jatiluhur sections in Northwest Java Basin. In: ICG 2015, 2nd Int. Conf. and 1st Joint Conf. Faculty of Geology Universitas Padjaran and University of Malaysia Sabah, p. 111-115.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/Miocene-Planktonic-Foraminiferal-Biodatum-of-the-Jatiluhur-Sections.pdf)
(Five planktonic foraminiferal biodatums identified in sections at Ciherang, Cikeo, Cigajah, etc. rivers and Jatiluhur reservoir: Orbulina suturalis (E-M Miocene boundary; N9); Top Globigerinoides subquadratus (M Miocene; near top N13); Base Globorotalia acostaensis (near base Late Miocene; N16); Base Globorotalia plesiotumida (Late Miocene; N17); and B Globorotalia margaritae (Miocene-Pliocene boundary; N18))

Isnaniawardhani, V., R. Rinawan & B. Prianggoro (2012)- The fossil assemblage features of limestones and clastic sedimentary rock in Lulut area, Cileungsi District, Bogor, West Java. Bull. Scientific Contr. (UNPAD) 10, 2, p. 96-107.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8281/3828)
(In Lulut area N of Bogor, W Java, M Miocene shallow marine Jatiluhur Fm clastics interfingers with Klapanunggal Fm limestone, rich in corals and algae. Planktonic foraminifera of Jatiluhur Fm zones N9-N14. Little detail: no sample localities, distribution charts, etc.)

Isnaniawardhani, V. E. Sunardi & (2014)- Middle Miocene to Early Pliocene nannofossil biostratigraphy on Jatiluhur area, Bogor Through, Indonesia. In: Proc. Seminar Nasional Fakultas Teknik Geologi, Geologi untuk meningkatkan kesejahteraan masyarakat, UNPAD, Bandung, p. 298-308.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2015/03/Middle-Miocene-to-Early-Pliocene-Nannofossil-Biostratigraphy.pdf)
(Upper Cibulakan, Parigi and Cisubuh Fms exposed near Jatiluhur reservoir dated as M Miocene-E Pliocene (NN5/CN4- NN13-CN10)

Jacobson, M.I. (1989)- Beta-quartz from Ciemas Kampung, Indonesia and other mineralogical finds. Mineral News 5, 11, p. 4-5
(Geology and mineralogy of common 6-25mm diameter hexagonal dipyramidal quartz crystals in dacite from Ciemas Village, SE of Pelabuhan Ratu, Jampang Plateau, W Java)

Jambak, M.A. (2014)- Analisis facies dan sejarah diagenesa batuan karbonat Formasi Rajamandala, Padalarang, Jawa Barat. In: Proc. Seminar Nasional Fakultas Teknik Geologi, Geologi untuk meningkatkan kesejahteraan masyarakat, UNPAD, Bandung, p. 3-16.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2015/03/ANALISIS-FACIES-DAN-SEJARAH-DIAGENESA-BATUAN-KARBONAT-FORMASI.pdf)
('Facies analysis and diagenetic history of carbonate rock formations Rajamandala, Padalarang, West Java'. Reef, back-reef, fore-reef and open shelf facies in Latest Oligocene Rajamandala Lst. Early and late diagenesis resulted in relatively tight rock, suitable for exploitation as marble)

Jambak, M.A., Ovinda & U.P. Nababan (2014)- Assosiasi fosil dan paleoekologi batuan karbonat Formasi Rajamandala, Padalarang, Jawa Barat. Bull. Ilmiah Mineral dan Energi (MINDAGI; Trisakti) 8, 2, p. 1-12.
(online at: www.trijurnal.lemlit.trisakti.ac.id/index.php/mindagi/article/view/73/73)
('Fossils and paleoecological associations of carbonate rocks of the Rajamandala Formation, Padalarang, West Java')

Jurnaliah, L. (2006)- Paleoekologi satuan batulempung Formasi Jatiluhur daerah Cileungsi, Kecamatan Cileungsi, Kabupaten Bogor, Jawa Barat. Bull. Scientific Contr. (UNPAD) 4, 1, p. 78-86.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8117/3693)
('Paleoecology of the claystone member of the Jatiluhur Formation, Cileungsi area, Bogor District, West Java'. Late E- early M Miocene (N8-N9) claystone in Cikarang and Cilegok River sections. With 20-31 species of shallow marine benthic foraminifera, dominated by Rotaliina. Interpretation of paleoecology using Diversity Index Fisher α index, etc., suggest Normal marine lagoons, Hyposaline lagoons and Hypersaline lagoons)

Jurnaliah, L., F. Muhammadsyah & N. Barkah (2016)- Lingkungan pengendapan Formasi Kalibeng pada kala Miosen Akhir di Kabupaten Demak dan Kabupaten Semarang, Jawa Tengah berdasarkan rasio foraminifera plangtonik dan bentonik (Rasio P/B). Bull. Scientific Contr. (UNPAD) 14, 3, p. 233-238.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/10965/pdf)
('Depositional environment of the Kalibeng Formation at the end of the Miocene in Demak and Semarang regencies, Central Java, based on planktonic/ benthic foraminifera ratios'. Late Miocene Lower Kalibeng Fm in Jragung River section with P/B ratios from 50- 99.4%, showing outer neritic- bathyal marine paleoenvironments)

Jurnaliah, L. I. Syafri, A. Sudrajat & R. Kapid (2017)- Perubahan pengendapan pada kala Miosen Akhir-Pliosen Awal berdasarkan kumpulan foraminifera bentonik kecil pada lintasan Kali Jragung, Kabupaten Demak, Jawa Tengah. Bull. Scientific Contr. (UNPAD) 15, 1, p. 45-52.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/11742/pdf)
('Change in paleobathymetry in the Late Miocene- Early Pliocene based on a collection of small benthic foraminifera from the Jragung Kali section, Demak regency, Central Java'. Four outer shelf- middle bathyal biofacies in Banyak Mb/ Kalibeng Fm of Jragung River section, reflecting eight fluctuations from bathyal to outer shelf paleobathymetry in Late Miocene- E Pliocene (N16-N19))

Khaing, S.Y., S.S. Surjono, J. Setyowiyoto & Y. Sugai (2017)- Facies and reservoir characteristics of the Ngrayong sandstones in the Rembang Area, Northeast Java (Indonesia). Open Journal of Geology 7, Scientific Research Publishing, p. 608-620.
(online at: http://file.scirp.org/pdf/OJG_2017051111291575.pdf)
(Study of reservoir characteristics of M Miocene Ngrayong Sandstone from outcrops N of Blora, Rembang zone. Ngrayong single transgressive-regressive cycle, with foreshore and tide-dominated shoreface facies. Sands f-m grained, subangular- poorly rounded, well-sorted, mainly composed of quartz, also orthoclase, plagioclase and micas. Texturally mature. Porosity 26- 40%, permeability 95- 3385 mD. Eight lithofacies)

Kholiq, A. (2007)- Stratigrafi foraminifera kelompok *Rotalia* Cekungan Jawa Barat Utara. Proc. Joint Conv. 32nd HAGI, 36th Indon. Assoc. Geol. (IAGI) and 29th IATMI, Bali, p.
('Stratigraphy of foraminifera of the Rotalia group in the Northwest Java Basin')

Khurniawan, S., N.R. Apriliani & Aswan (2015)- Penentuan lingkungan pengendapan Formasi Penosogan berdasarkan analisis fosil jejak di lintasan Kali Jaya, Karangsambung, Kebumen, Jawa Tengah. Buletin Geologi (ITB) 42, 1, p. 21- .
('Determination of depositional environment of the Penosogan Formation based on trace fossil analysis in the Kali Jaya section, Karangsambung, Kebumen, Central Java'. Outer neritic- upper bathyal environment of turbiditic clastic series)

Kurnio, H. (2007)- Review of coastal characteristics of iron sand deposits in Cilacap, Central Java. Bull. Marine Geol. 22, 1, p. 35-49.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/4/4)
(Mineable magnetite-bearing iron sand deposits in Cilacap, S coast of C Java. Coastal area successive sandy beach ridges separated by marshy valleys, typical of prograded coasts. Iron sand deposits derived mainly from denudation of Oligocene- E Miocene 'Old Andesite Fm' in hinterland. Serayu River main agent of sediment supply to coast (see also Sarmili et al. 1999))

Kristanto, A.S., F.D. Erdanto, M. Fadli, D.W. Widiyanto, Y. Nusantara & T. Diharja (2018)- A venture into Early- Middle Miocene clastics: an exploration opportunity in the western part of the East Java Basin. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-107-G, 14p.
(E-M Miocene shallow-marine clastic play in Tuban (Burdigalian) and Tawun Fms (Langhian) in Alas Dara Kemuning PSC (NW part of Cepu Block), NE Java basin. Coarsening-upward packages. Oil and gas-condensate in recent N-1 well (inversion structure?) and nearby NU-2 and NU-4 wells. Reservoirs moderate-good porosity, low permeability (carbonate cement), except in Ngrayong sands)

Kurniasih, A., I. Adha, H. Nugroho & P. Rachwibowo (2018)- Petrogenesis batuan metamorf di perbukitan Jiwo Barat, Bayat, Klaten, Jawa Tengah. J. Geosains dan Teknologi (UNDIP) 1, 1, p. 1-7.
(online at: https://ejournal2.undip.ac.id/index.php/jgt/article/view/2503/1494)
('Petrogenesis of metamorphic rocks in the West Jiwo Hills, Klaten, Central Java')
(Bayah Complex metamorphic rocks low grade greenschist facies, associated with Eocene Nummulites limestones, serpentinite/ gabbro. Schist-phyllite from protolith of continental origin (siltstone, claystone))

Kurnio, H. & T. Naibaho (2011)- Pematang Pantai Purba sebagai perangkap gas biogenik di pesisir Indramayu Provinsi Jawa Barat suatu kajian pendahuluan. J. Sumber Daya Geologi 21, 5, p. 275-281.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/154/151)
('Pematang Pantai Purba as a biogenic gas trap on the coast of Indramayu West Java Province a preliminary study'. Biogenic gas seepage at beach sands along N coast of Java near Indramayu)

Kurnio, H., T. Naibaho & M.A. Mustafa (2010)- Karaktertistik Pantai Indramayu dengan keberadaan gas biogenik. J. Sumber Daya Geologi 20, 1, p. 33-40.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/160/155)
('Characteristic of Indramayu Beach with presence of biogenic gas'. Indamayu coast at N coast of W Java with sandy coastal dunes between mangroves. Biogenic gas from mangroves may accumulate in dune sands)

Lelono, E.B. (2016)- Cooling event in the boundary of Middle/Late Eocene of Java. Proc. 5th Int. Conf. Earth Science & Climate Change, Bangkok, J Earth Sci. Climate Change 7, 5, (Suppl.), p. 63. *(Abstract only)*
(Eocene palynomorphs in Nanggulan Fm, C Java: M Eocene abundant and diverse lowland/rain forest elements suggesting warm- wet conditions with Palmaepollenites kutchensis, Retitricolporites equatorialis, Campnosperma sp., Marginipollis concinus and Dicolpopollis malesianus. Late Eocene marked by regular grass pollen and reduction of rainforest elements, indicating development of savanna in cool-dry climate condition (also recorded in Toraja Fm of S Sulawesi and Late Eocene of Makassar Strait. First occurrence of hinterland pollen Podocarpidites spp. marks M-L Eocene boundary)

Longley, I., C. Kenyon, A. Livsey & J. Goodall (2016)- A methodology for future exploration in mature Indonesian basins- why play mapping integrated with well failure analysis matters- an example from the East Java Basin, Indonesia. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 25-TS-16, p. 1-10.
(E Java Basin in back-arc geological setting onshore and offshore E Java. 380 exploration wells drilled, with ~90 discoveries. Seven main charge cells identified: Muriah, Cepu, Central Deep, N Madura, S Madura, Kangean and Southern Basin. Etc.)

Maha, M., B. Rahmad & H. Widiyanto (2007)- Facies dan petrografi batubara Formasi Nanggulan daerah Kalisonggo, Kecamatan Girimulyo, Kabupaten Kulon Progo, Daerah Istimewa Yogyakarta. Proc. Joint Conv. 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 593-616.
('Facies and petrography of Nanggulan formation coal of the Kalisonggo area, Girimulyo Subdistrict, Kulon Progo Regency, Special Region of Yogyakarta'. Coal bed 0.53m thick in M-L Eocene Nanggulan FmW of Yogya. Vitrinite 57-69%, lignite grade (vitrinite Rv max 0.34-0.44%))

Manaf, N.A. & Yarmanto (2016)- Integrating data sets and applying new approaches is the key to the exploration success in the North West Java area. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 36-TS-16, p. 1-17.
(Review of hydrocarbon plays in onshore and offshore NW Java sub-basins and 125 years of exploration history)

Martha, A.A., P. Cummins, E. Saygin, S. Widiyantoro & Masturyono (2017)- Imaging of upper crustal structure beneath East Java-Bali, Indonesia with ambient noise tomography. Geoscience Letters 4, 14, p. 1-12.
(online at: https://link.springer.com/content/pdf/10.1186%2Fs40562-017-0080-9.pdf)
(Ambient Noise Tomography used to image upper crustal structure under E Java- Bali. Main is thickness of sediment cover. Kendeng basin dominated by very low velocities)

Martha, A.A., S. Widiyantoro, P. Cummins, E. Saygin & Masturyono (2016)- Investigation of upper crustal structure beneath eastern Java. Proc. 5th Int. Symposium on Earth hazard and disaster mitigation, AIP Conf. 1730, Bandung, 020011, p. 1-7.
(Ambient Noise Tomography method used to detect structure under E Java. N Rembang zone and most of S Mountains zone areas of high gravity anomaly and high velocity zones. Kendeng zone and most of basin in Rembang zone associated with low velocity zones)

Martin, R. (1951)- Kort overzicht van de geologie en olievoering van het Kawengan terrein. BPM Report, Tjepu No. 1147, p. *(Unpublished)*
(' Brief review of the geology and oil occurrence in the Kawengan field'. Cross-section from this report in Situmorang (1985), shows asymmetric faulted anticline with M Miocene Ngrayong Sst main reservoir)

Martosuwito (2013)- Hubungan Lembah Sadeng, Cekungan Baturetno dan teras Bengawan Solo, Jawa bagian Tengah. J. Sumber Daya Geologi 23, 3, p. 155-165.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/88/82)
('Relationship between the Sadeng Valley, Baturetno Basin and Solo River terraces, Central Java')

Maryanto, S. (2009)- Mikrofasies batugamping Formasi Sentolo di lintasan Hargorejo, Kokap, Kulunprogo. Proc. 38th IAGI Ann. Conv. Exh. Indon. Assoc. Geol. (IAGI), Semarang, PIT IAGI 2009-002, 13p.
('Limestone microfacies in the Sentolo Formation in the Hargorejo section, Kokap, Kulunprogo', 180m thick section of Miocene Sentolo Fm in S C Java. Overlies Kebobutak volcanics. Dominated by limestones with abundant larger foraminifera (incl. Lepidocyclina))

Maryanto, S. (2015)- Microfasies dan diagenesis batugamping Formasi Wonosari di lintasan Goa Gong, Pacitan, Jawa Timur. Majalah Geol. Indonesia 29, 3, p. 143-159.
('Limestone microfacies and diagenesis of the Wonosari Formation at the Gong Cave traverse, Pacitan, East Java'. Petrographic study of 40m thick section of Miocene Wonosari Fm reefal limestone, W of Pacitan, Southern Moutains, E Java)

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(New gravity survey over Lusi mud volcano area, E Java, after 10 years of continuous eruption. Lusi mud edifice built over extended NW-SE gravity increase, interpreted as sediment density variation in basin)

Miller, S.A. & A. Mazzini (2017)- More than ten years of Lusi: a review of facts, coincidences, and past and future studies. Marine Petroleum Geol., p. *(in press)*
(Lusi mud eruption in E Java continued unabated for >10 years, continuously erupting mud breccia, gas, steam, and water. Suggested drilling trigger cannot explain subsequent observations; more likely volcanically-linked hydrothermal system)

Morina, H., I. Syafri & L. Jurnaliah (2014)- Lingkungan pengendapan satuan batulempung sisipan batupasir pada Formasi Kerek daerah Juwangi dan sekitarnya, berdasarkan karakteristik litologi, analisis struktur sedimen, dan kandungan fosil bentonik. Bull. Scientific Contr. (UNPAD) 12, 3, p. 147-154.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8375/3891)
('Depositional environment of the sandstones-claystones of the Kerek Formation in the Juwangi area and surroundings, based on lithology, structure analysis of sediment and benthic fossil content'. Foraminifera interpreted as outer neritic)

Moscariello, A., D. do Couto, F. Mondino, J. Booth, M. Lupi & A. Mazzini (2018)- Genesis and evolution of the Watukosek fault system in the Lusi area (East Java). Marine Petroleum Geol. 90, p. 125-137.
(Seismic structural interpretation in area around Lusi mud eruption in E Java. Watukosek fault originated as extensional lineament and evolved into sinistral shear zone in post-Miocene)

Mulyawan, R.S. & S. Husein (2014)- Kompleks sesar Trembono sebagai gravitational structures. Proc. 7th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, P4P-01, p. 676-689.
('The Trembono fault complex as gravitational structures'. Trembono fault complex in Gunung Kidul Regency, S Mountains, formed in late Oligocene- E Miocene Kebo-Butak Fm volcanoclastics in extensional regime with NE-SW extension direction. Timing of formation unclear. Possible gravitational structure. See also Nugraha et al. 2016)

Murwanto, H., Y. Gunnell, S. Suharsono, S. Sutikno & F.Lavigne (2004)- Borobudur monument (Java, Indonesia) stood by a natural lake: chronostratigraphic evidence and historical implications. The Holocene 14, 3, p. 459-463.
(9th century Borobudur Buddhist temple built on promontory extending into of existing lake. Fluctuating life history of lake spanned at least 20,000 years)

Murwanto, H., Sutikno & A. Subandrio (1998)- The ancient lake environment in the Borobudur area, Central Java. Proc. 27th Ann. Conv. Indon. Assoc. Geol. (IAGI), Yogyakarta, 3 (Geodin. Magmat. Volkanologi), p. 84-93.
(Area surrounding Borobudur hills once formed Quaternary lake environment. With black clays containing plants and pollen fossils of lake community vegetation. Former lake filled by lahar and pyroclastic deposits)

Muslih, Y.B. & A.F. Putra (2018)- Subsidence mechanisms in offshore South Java and its comparison to onshore geology: extensional and flexural tectonics. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-168-G, 15p.
(Offshore S Java displays extensional structures in fore-arc position, with structures trending mainly NE-SW to ENE-WSW. NE-SW structural trends continue into onshore S Java (unlike N-S faults in N Java))

Myaing, Y.Y., A. Idrus & A.D. Titisari (2018)- Fluid inclusion study of the Tumpangpitu high sulfidation epithermal gold deposit in Banyuwangi District, East Java, Indonesia. J. Geoscience Engineering Environm. Technol. (JGEET) 3, 1, p. 8-14.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/download/1039/784)
(Tumpangpitu epithermal Cu-Au-Ag deposit at S coast of SE Java, in area with Late Oligocene- M Miocene low-K calc-alkaline to alkaline andesitic volcanics and volcaniclastics and with low-K intermediate intrusions. Mineralization style high-sulfidation epithermal gold-copper system typically associated with deeper gold-rich porphyry copper system. Paleodepth of mineralization determined from fluid inclusions 650m- 1220m)

Nahrowi, Baharuddin & Aminuddin (1979)- Stratigrafi Paleogene muda- Neogen Tua daerah Tuban, Paciran dan Panceng, Jawa Timur. Presentation 8th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 47p.
('Stratigraphy of the late Paleogene- early Neogene in the Tuban, Paciran and Panceng areas, East Java')

Nainggolan D.A. (2008)- Struktur bawah permukaan daerah Semarang dan sekitarnya dari metode gaya berat dan magnet. J. Sumber Daya Geologi 18, 3, p. 185-202.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/265/245)
(Sub-surface structure of Semarang and surroundings from gravity and magnetic methods'. Semarang area mainly covered by young volcanic rocks. Cipluk oil field, S of Kendal already closed in 1930. Structures in area mainly E-W and N-S directions)

Nainggolan D.A. (2009)- Struktur geologi bawah permukaan daerah Pekalongan dan sekitarnya berdasarkan analisis anomali gaya berat dan magnet. J. Sumber Daya Geologi 19, 2, p. 127-138.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/200/191)
('Sub-surface geological structures of Pekalongan and surrounding areas based on gravity and magnetic anomaly analysis')

Natawidjaja, D.H. & M.R. Daryono (2016)- Present-day tectonics and earthquake history of Java, Indonesia. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 365-374.
(Java fewer major earthquakes than Sumatra, and focused along many smaller active faults (left-lateral Lembang fault, Cimandiri reverse fault, Baribis everse fault, Opak fault, Lasem fault and others)

Natawidjaja, D.H., B. Sapiie, A. Pamumpuni, G.I. Marliyani & M.R. Daryono (2017)- Baribis-Kendeng thrust-fold zone of Java, Indonesia: new evidences of active back-arc tectonics and their implications to seismic hazards. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
(Geologic studies and earthquake records suggest E-W trending Baribis (W Java) and Kendeng (C-E Java) thrust belts in back-arc zone are connected and still active fold-thrust belt. Connects E to Flores back thrust)

Ningrum, H.N.R. & Abdurrokhim (2016)- Study of paleoenvironmental changes based on lithofacies and foraminifera analysis in Padalarang Area, West Bandung Regency, West Java Province. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 524-532.
(Summary of Oligocene- M Miocene (bio-)stratigraphy of Padalarang area, W of Bandung. Oldest rocks deep marine M Oligocene (N2) Batuasih Fm shale. Overlain by Late Oligocene (N3-N4)Rajamandala Lst, overlain by E Miocene outer neritic- bathyal clastics (N5-N13), etc. (No references to many earlier papers on this area))

Norris, M., B.D. Rohrlach & A. Maryono (2011)- The discovery of the Tujuh Bukit porphyry epithermal copper-gold-silver deposits, East Java, Indonesia. In: Proc. NewGenGold 2011 Conf., Case histories of discovery, Perth, p. 201-211.

(Tujuh Bukit group of telescoped epithermal and porphyry copper-gold-silver deposits in E Java, ~205 km SE of Surabaya. Cluster of deposits, including Tumpangpitu, Candrian, Katak and Gunung Manis in area of ~5 km diameter. Tumpangpitu comprises high sulphidation Cu-Au-Ag epithermal mineralisation that is telescoped onto large underlying Au-rich porphyry Cu-Au-Mo system, associate with young tonalite intrusives)

Noya, Y. (1994)- Geology and mineralization of the Cikotok area, West Java, Indonesia. M.Sc. Thesis Curtin University of Technology, Perth, p. 1-219. *(Unpublished)*
(Cikotok gold-silver deposits discovered in 1936 in Bayah Dome of S Banten, ~200 km SW of Jakarta. Total production from 1940-1992 ~7704 kg of gold and 218,853 kg of silver. Pliocene-age mineralization in quartz veins infill brittle fractures, formed at low T, in Oligo-Miocene felsic volcanics('Old Andesite Fm') host rocks. Small andesitc and granodioritic intrusive rocks emplaced in M-L Miocene. Cikotok ore typified by high silver content which occurs as fine-grained argentite and possible as electrum. Ore minerals in large sulphide (chalcopyrite, sphalerite and galena)-bearing quartz veins and in hydrothermal breccias. Three zones. Epithermal origin, with average formation T 245°C. Depth below surface ~200 m at time of formation)

Noya, Y., D. Sukarna & S. Andi Mangga (1994)- The nature of mineralization at the Cikotok area, West Java. Proc. 23rd Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 2, p. 981-1000.
(Cikotok high-silver/ minor gold mineralization in SW Java large epithermal sulphide-quartz veins and in hydrothermal breccias. Host rocks Oligo-Miocene 'Old Andesite' volcanics. Ag-Au in sulphide minerals sphalerite, galena and chalcopyrite. Formed at 200m below surface (exploited from 1936-2008))

Nugraha, A.M.S., A. Ditya, M. Zamzam, Y. Hernawati & B. Sapiie (2009)- Fracture characteristics within carbonate rocks facies and its implication to reservoir characterization, case study Rajamandala Formation, West Java. Proc. 38th IAGI Ann. Conv. Exh. Indon. Assoc. Geol. (IAGI), Semarang, 18p.

Nugraha, A., F. Pambudi, V.S. Sundari, S. Sugiarto & S. Hussein (2014)- Karakteristik deformasi struktur pada sistem kompleks sesar mendatar Terombo di dusun Sumberan, Kecamatan Ngawen, Kabupaten Gunung Kidul. Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, P4P-01, p. 21-33.
(online at: https://repository.ugm.ac.id/137862/1/DOB-01.pdf)
('Characteristics of structural deformation in the complex Terombo horizontal fault system in Sumberan village, Ngawen sub-district, Gunung Kidul regency'. Trembono fault complex NE-SW trending strike-slip faults in Tertiary rocks in S Mountains near Sumberan, deforming Kebo-Butak submarine volcaniclastic rocks)

Nugraha, K., I. Haryanto, Faisal Helmi & M.F. Rosana (2016)- Gravity collapse- structural model of Ciletuh Amphiteatre, West Java, Indonesia. Proc. Asia Oceania Geoscience Conference, p.
(Ciletuh amphitheatre is Pliocene - Pleistocene gravitational failure, forming amphitheatre that now exposes Eocene quartz sandstone unit and Cretaceous melange rock)

Nugroho, D. (2016)- Evolusi sedimentasi batugamping Oligo-Miosen Formasi Rajamandala di daerah Padalarang, Jawa Barat. Ph.D. Thesis, Inst. Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Evolution of Oligo-Miocene Rajamandala Formation limestone in the Padalarang area, West Java')

Obermann, A., Karyono, T. Diehl, M. Lupi & A. Mazzini (2017)- Seismicity at Lusi and the adjacent volcanic complex, Java, Indonesia. Marine Petroleum Geol., p. *(in press)*
(Ongoing seismic events events in E Java mainly nucleate at 8-13 km depths below Arjuno-Welirang volcanic complex. Practically no seismicity in sedimentary basin hosting Lusi mud eruption. Focal mechanisms indicate mainly sinistral strike-slip faulting SW of Lusi and suggesting Watukosek fault system extends from volcanic complex towards NE of Java)

Oktariani, H., Winantris & L. Fauzielly (2018)- Fosil kayu *Dryobalanoxylon* sp. pada Formasi Genteng di Kabupaten Lebak Provinsi Banten dan paleofitogeografinya di Indonesia. Bulletin of Geology (ITB) 2, 1, p. 175-196.

(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/4/Paper-5%20vol.%202%20no.%201)
('Fossil wood Dryobalanoxylon sp. in the Genteng Formation in Lebak Regency, Banten, and its paleophytogeography in Indonesia'. E Pliocene fossilized wood of dipterocarp family in Genteng Fm tuff in Sindangsari Village, W Java. Genus known from Miocene- Pleistocene of Sumatra, W Java and Kalimantan)

Oktariani, H., Winantris, L. Fauzielly & R. Damayanti (2017)- *Dryobalanoxylon* sp.: a fossil wood preserved in the Genteng Formation from Lebak Regency, Banten Province, Indonesia. J. Geol. Sciences Applied Geology (UNPAD) 2, 3, p. 119-126.
(online at: jurnal.unpad.ac.id/gsag/article/download/15620/7347)
(English version of Oktariani et al. 2018)

Pandita, H. (2008)- Lingkungan pengendapan Formasi Sambipitu berdasarkan fosil jejak di Daerah Nglipar, Java. Jurnal Teknologi Mineral (ITB) 15, 2, p. 85-94.
('Depositional environment of the Sambipitu Formation based on trace fossils in the Nglipar Region')

Pandita, H. (2014)- Paleontologi moluska Neogen genus Turritella dari Pulau Jawa sebagai dasar penyusunan biozonasi Turritella. Ph.D. Thesis Inst. Teknologi Bandung (ITB), p.
('Neogene molluscan paleontology of the genus Turritella from Java as basis for development of a Turritella biozonation')

Pandito, R.H.B., R.M Zainal, I. Rahman & A. Haris (2017)- New perspective for exploration: hydrocarbon potential of Ngimbang Formation- Northeast Java Basin. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 4p.
(S well tested gas in Late Oligocene limestone in 2013 (In W Tuban block? Not real well name? Should be Lower Kujung Fm?; JTvG)

Panjaitan, S. (2009)- Aplikasi metode gaya berat untuk identifikasi potensi hidrokarbon di dalam cekungan Jakarta dan sekitarnya. J. Sumber Daya Geologi 19, 6, p. 341-350.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/218/208)
('Application of gravity methods for identification of hydrocarbon potential in the Jakarta basin and beyond'.)

Panjaitan, S. & N.Astawa (2010)- Studi potensi migas dengan metode gayaberat di lepas pantai utara Jakarta. J. Geologi Kelautan 8, 1, p. 23-35.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/183/173)
('Study of the oil and gas potential off the north coast of Jakarta with gravity methods'. N-S normal faults and E-W reverse faults shown on gravity model)

Panuju, G. Rahmat, A. Priyantoro, E. Wijaksono & B. Wicaksono (2017)- Analisis sikuenstratigrafi untuk identifikasi kompartmentalisasi reservoir karbonat Formasi Ngimbang Blok Suci, Cekungan Jawa Timur Utara. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 51, 3, p. 145-157.
(?online at: http://www.journal.lemigas.esdm.go.id/ojs/index.php/LPMGB/article/view/26/27)
('Sequence stratigraphic analysis for identification of carbonate reservoir compatmentalization of the Ngimbang Formation in the Suci Block, NE Java Basin'. Study of wells and seismic sections indicates Ngimbang carbonate reservoirs deposited in Late Eocene- E Oligocene in inner neritic- upper bathyal environments, shallow in W (KMI-1) to deeper in E (Suci- 2). Three separate units, including Late Eocene carbonate platform facies around Suci-2, Eocene- basal Oligocene carbonate platform facies around KMI-1 and Suci 2 and upper E Oligocene reef facies around Suci 1 well. Gas accumulation only in Suci-1)

Patriani, E.Y. (2011)- Studi biofasies formasi foraminifera berumur Miosen Tengah pada batuan karbonat di Pegunungan Selatan, daerah Wonosari, D.I.Yogyakarta. M.Sc. Thesis, Inst. Teknologi Bandung (ITB), p. *(Unpublished)*
('Study of foraminifera biofacies in the Middle Miocene carbonate formations in the Southern Mountains, Wonosari area, D.I.Yogyakarta')

Permana, H., E.Z. Gaffar, Sudarsono, H. Nurohman & S. Indarto (2015)- Struktur dan tektonik lereng selatan 'kaldera purba Garut-Bandung', Garut Selatan, Jawa Barat. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I51-I62.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf)
('Structure and tectonics of the southern slope of the 'Garut-Bandung ancient caldera', South Garut, W Java')

Permana, H., Munasri, M.M. Mukti, A.U. Nurhidayati & S. Aribowo (2018)- The origin of oceanic crust and metabasic rocks protolith, the Luk Ulo melange complex, Indonesia. Proc. Global Colloquium on GeoSciences and Engineering (GCGE2017), Bandung 2017, IOP Conf. Series, Earth Environm. Science 118, 012004, p. 1-5.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012004/pdf)
(Luk Ulo Paleocene-Eocene melange complex composed of tectonic slices of rocks (serpentinite, gabbro, eclogite, blueschist, amphibolite, granite, chert, etc.)in scaly clay matrix. Metamorphic rocks formed in E Cretaceous (101-125 Ma) at 70-100 km depth and ~6°C/km thermal gradient. Basalt of subducted oceanic crust Cretaceous age (130-81 Ma) comparable to ages of cherts (Early-Late Cretaceous). Metabasic rocks (eclogite, blueschist, amphibolite) possibly originated as part of edge of microcontinent that merged as part of melange during collision with Eurasian margin)

Pfeiffer, J.P. & F.C. van Heurn (1928)- Eenige tot dusver niet beschreven fossile houtsoorten van Java: Verslag vergadering Afd. Natuurkunde, Kon. Akademie van Wetenschappen Amsterdam 37, 5, p. 469-475.
('Some previously undescribed fossil wood species from Java'. Silicified wood from Bolang, 35km W of Bogor, dominated by Dipterocarpoxylon and Dryobalanoxylon, also Sapindoxylon and Parinarioxylon)

Pireno, G.E. & A. Roniwibowo (2016)- Conventional biogenic gas exploration in the northwestern part of East Java Basin. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc., Jakarta, 26-TS-16, p. 1-13.
(Two recent commercial biogenic gas discoveries in NW part of E Java Basin (Bawean Arch): Lengo (1998) and Mustika (2015). Also in JS15-1/ Kepodang field (1971). Gas reservoir in Miocene Kujung I carbonate platform; sourced from coal and carbonaceous shales of Kujung III Fm in Muriah Trough, <7000' deep and low geothermal gradient. Many wells in area with very high CO2 gas. Lengo-1 biogenic gas 68% methane, 12% CO2 and 20% Nitrogen)

Pott, G. (1942)- Summaries of the coal fields of (a) Bajah and Tjimandiri (South Bantam) and (b) Bodjongmanik (Bantam). Report Geological Survey, Bandung, p. *(Unpublished)*

Praptisih (2016)- Karakteristik batuan induk hidrokarbon dan hubungannya dengan rembesan minyak di lapangan minyak Cipluk, Kabupaten Kendal, Provinsi Jawa Tengah. Bul. Sumber Daya Geologi 11, 2, p. 93-101.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Characteristics of hydrocarbon source rock and its relation to oil seepage in the Cipluk oil field, Kendal Regency, Central Java province'. Oil from seep S of Sojomerto near abandoned Cipluk oil field, WSW of Semarang, is mature and from estuarine-shallow lacustrine source rocks, with organic material derived from land plants. Does not correlate to nearby gas-prone Kerek and Penyatan Fms)

Praptisih (2016)- Fasies, lingkungan pengendapan dan sifat fisik (kesarangan dan kelulusan) batuan karbonat Formasi Parigi di daerah Pangkalan Karawang, Jawa Barat. J. Geologi Sumberdaya Mineral 17, 4, p. 205-215.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/13/6)
('Facies, depositional environment and physical properties (porosity and permeability) of the Parigi Formation carbonate rocks in area Pangkalan Karawang area, West Java'. Facies and facies distribution of M-L Miocene Parigi Fm limestones in Pangkalan area, NW Java. Porosity up to 25.8%, permeability up to 21.2 mD)

Praptisih (2016)- Fasies batuan karbonat di daerah Bojongmangu Bekasi, Jawa Barat. In: R. Delinom et al. (eds.) Pros. Geotek Expo 2016, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 255-264.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2017/10/05/prosiding-2016/)

('Facies of carbonate rocks in Bojongmangu area, Bekasi, West Java'. M Miocene Parigi Fm outcrops in Bojongmangu- Bekasi area. With Lepidocyclina (Trybliolepidina) rutteni, and N17 planktonics. Four reef slope facies)

Praptisih (2016)- Studi batuan sedimen Formasi Cinambo di daerah Sumedang, Jawa Barat. In: R. Delinom et al. (eds.) Pros. Geotek Expo 2016, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 265-276.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2017/10/05/prosiding-2016/)
('Study of sediments of the Cinambo Formation in the Sumedang area, West Java'. Age of Cinambo Fm upper bathyal marine turbiditic series in Sumedang area is M Miocene, based on presence of Globorotalia peripheroacuta, Gr. praefohsi, Gr. fohsi, etc.)

Praptisih (2017)- Geokimia batuan induk hidrokarbon Formasi Cinambo di dearah Sumedang, Jawa Barat. Bul. Sumber Daya Geologi 12, 3, p. 144-153.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/article/view/BSDG_VOL_12_NO_3_2017_1/pdf)
(Geochemistry of the Cinambo Formation hydrocarbon rocks in the Sumedang area, West Java'. 16 samples of claystone from Miocene Cinambo Fm with TOC 0.32-1.5% (low hydrocarbon potential). Organic matter mainly gas-prone Type III kerogen. Biomarkers suggest no correlation with oil seepage in Majalengka area)

Praptisih (2018)- Biomarker characteristics of source rock and oil seepage correlation in Central Java. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conf. Series, Earth Environm. Science 118, 012008, p. 1-7.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012008/pdf)
(Oil seepage in different parts of C Java. Biomarkers of rocks and oils suggest oil seepage in Banjarnegara is derived from Totogan Fm, Bayat oil derived from Wungkal Fm. Cipluk oil deposited in estuarine facies, therefore not from Kerek Fm. Oils in Kedungjati and Bantal areas not from Kerek and Pelang Fms)

Praptisih & Kamtono (2002)- Fasies turbidite pada Formasi Halang di daerah Cilacap Utara, Jawa Tengah. Buletin Geologi (ITB), 34, 3, Special Ed. (Prof. Soejono Martodjojo volume), p. 133-140.
('Turbidite facies of the Halang Formation in the North Cilacap area, Central Java')

Praptisih, Kamtono, P. Sulastya & M. Hendrizan (2009)- Batuan induk (source rock) hidrokarbon di sub cekungan Bogor bagian Selatan, Jawa Barat. In: I. Setiawan et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2009, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 183-192.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/01/20/prosiding-2009/)
('Hydrocarbon source rocks in the southern part of the Bogor Basin, West Java'. Oligocene Batuasih Fm claystones from Gunung Walat area near Sukabumi potential hydrocarbon source rocks. TOC 0.49-1.72%. Level of maturity. between 424- 524° C)

Praptisih, M.S. Siregar, M. Hendrizan & P.S. Putra (2009)- Fasies batuan karbonat di daerah Klapanunggal, Bogor. In: I. Setiawan et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2009, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. 173-181.
(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/01/20/prosiding-2009/)
('Facies of carbonate rocks in the Klapanunggal area, Bogor'. M? Miocene Parigi Fm reefal limestones commonly called Klapanunggal Fm in Cibinong area. Four facies associations)

Praptisih, M.S. Siregar, Kamtono & A. Rachmat (2002)- Studi fasies batugamping Formasi Kalipucang di daerah Kedung Glunggung Karangbolong, Gombong, Jawa Tengah. Proc. 31st Ann. Conv. Indon. Assoc. Geol. (IAGI), Surabaya, 2, p. 850-857.
('Facies study of limestone of the Kalipucang formation in the Kedung Glunggung area, Karangbolong, Gombong, Central Java'. Lepidocyclina packstone facies in S Mountains of C Java interpreted as foreslope of M Miocene Karangbolong reef system)

Prasetyadi, C. (2008)- Exploring Jogja geoheritage: the lifetime of an ancient volcanic arc in Java. 10p.

(Fieldtrip guide S of Yogyarta)

Prasetyadi, C., M.G. Rachman, S.E. Hapsoro, A. Shirly, A. Gunawan & I. Purwaman (2016)- Seismic-based structural mapping of RMKS fault zone: implication to hydrocarbon accumulation in East Java Basin. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 104-107.
(Rembang-Madura-Kangean-Sakala (RMKS) Fault zone in NE Java and further East is sinistral slip fault which started to develop in M Miocene. E-W trending)

Prasetyo, A., J. Romora S., Yeftamikha, Fransiskus L.B & I.S. Nugroho (2016)- A petrographical review of metamorphic rocks from Ciletuh Complex in West Java and their related metamorphism in Central Indonesia region. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 624-633.
(online at: https://repository.ugm.ac.id/273596/)
(Ciletuh Cretaceous subduction complex in SW Java. Metamorphic rocks in Gunung Badak area consist of Grt-Ms-Qz schist, Ms phyllite, quartzite and serpentinite. In Tegal Pamidangan area Ms-Qz phyllite and slate (greenschist-facies). Protoliths of metamorphic rocks pelitic, ultramafic and quartz-rich rocks. No blueschist or eclogite-facies rocks recognized (but reported by endaang suhaeli et al. 1977). Presence of serpentinite among low-grade metamorphic rocks indicates metamorphic environment associated with oceanic crust/ mantle. Similar to Jiwo Hills, C Java, metamorphics)

Prasetyo, U., Aswan, Y. Zaim & Y. Rizal (2012)- Perubahan lingkungan pengendapan pada beberapa daerah di Pulau Jawa selama Plio-Plistosen berdasarkan kajian paleontologi moluska. Jurnal Teknologi Mineral (ITB) 19, 4, p. 173-180.
('Changes in depositional environment in some areas of Java during the Plio-Pleistocene based on paleontological studies of mollusks'. Three areas studied in W and C Java (in Bogor, N Serayu and Bobotsari Basins), all showing transition from shallow marine facies (with Turritella) in Late Pliocene to marginal marine (with Melanoides, Sulcospira, Tellina, Paphia) and non-marine (no molluscs) in Pleistocene (also as U.P. Wibowo ITB S2 Masters Thesis, 2009))

Premonowati, Sudarmoyo, Agus W., Joko P., Budi E., Arief N. & Eka P. (2009)- Reservoirs of Zone 12, Zone 15 and Zone 16 of the Upper Cibulakan Formation, South Pamanukan Field, Northwest Java Basin-stratigraphic or structural traps? Proc. 38th Ann. Conv. Indon. Assoc. Geol. (IAGI), Semarang, 13p.
(Late Early Miocene (N7-N8) U Cibulakan Fm in S Pamanukan gas field, onshore NW Java basin, 190m thick, with 3 sandstone reservoir zones 3-9m thick. Possible stratigraphic traps)

Purnama, Y.S., A. Gunawan, W. Darmawan, R.C. Rohmana, D. Adipradipto, J. Halim, R.N. Julias & B. Rahmanto (2018)- Characters of sedimentology, rock property and geochemistry of the Ngrayong and Tuban Formations in the Pati Trough, onshore North East Java Basin. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-291-G, 32p.
(P1 (2015) and P2 (2016) wells on Plio-Pleistocene Pakel anticline in Rembang zone, NE Java, with gas-condensate in poorly consolidated late E Miocene Tuban and early M Miocene Ngrayong Fm tidal sandstones. Gas samples from P2 well from mixed of biogenic (40%) and thermogenic sources)

Purnomo, J. & Purwoko (1994)- Kerangka tektonik dan stratigrafi Pulau Jawa secara regional dan kaitannya dengan potensi hidrokarbon. Proc. Geologi dan Geoteknik Pulau Jawa sejak Akhir Mesozoik hingga Kuarter, Jurusan Teknik Geologi, Gadjah Madah University, Yogyakarta, p. 253-274.
('The regional tectonic and stratigraphic framework of Java Island and its relation to hydrocarbon potential'. Java tectonics three main phases: (1) Eocene-Oligocene extensional rifting; (2) Neogene compressional wrench faulting, with shear faults reactivation of Paleogene normal faults; (3) Plio-Pleistocene compressional thrust-folding, creating E-W oriented aniclines)

Puswanto, E. & E. Hidayat (2014)- Analisis paleostruktur lava basal-andesitik Kali Mandala dan diabas Gunung Parang. In: H. Harjono et al. (eds.) Pros. Pemaparan hasil penelitian, Puslitbang Geoteknologi (LIPI), Bandung, p. 365-377.

(online at: http://pustaka.geotek.lipi.go.id/index.php/2016/01/20/prosiding-2014/)
('Analysis of paleostructure of basaltic-andesitic lava in Kali Mandala and diabas at Gunung Parang'. Faults in U Cretaceous - Paleogene pillow lavas in Luk Ulo melange, Karangsambung, C Java, affected by common NE-SW trending normal faulting; accompanied by M- L Eocene rift phase.)

Putra, P.S. & P. Praptisih (2017)- Re-interpretasi Formasi Kerek di daerah Klantung, Kendal, berdasarkan data stratigrafi dan foraminifera. J. Geologi Sumberdaya Mineral 18, 2, p. 77-88.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/272/280)
(Outcrops around Cipluk oilfield in northern C Java generally viewed as Kerek Fm, but stratigraphic and micropaleontological studies suggest interbedded marls- sandstones are Pliocene- Pleistocene age, upper bathyal turbiditic facies and should be viewed as part of Kalibeng Fm. Incl. Globorotalia tosaensis, Pulleniatina, Gr.crassaformis, Neogloboquadrina humerosa, etc.)

Putra, P.S. & E. Yulianto (2016)- Sedimentological and micropaleontological characteristics of the Black Clay deposit of the Baturetno Formation, Wonogiri, Central Java. Indonesian J. Geoscience 3, 3, p. 163-171.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/218/217)
(Quaternary Baturetno Fm black clay with freshwater diatoms, but mostly barren of palynomorphs and low TOC. Unlikely to be lacustrine, probably mud-flow deposit. Carbon dating ages ~7000 yrs BP, i.e. much younger than Late Pliocene tilting in S Java)

Putra, P.S., E. Yulianto, Praptisih, N. Supriatna, D. Trisuksmono, Amar, A.U. Nurhidayati, J. Ridwan & J. Griffin (2015)- Studi paleotsunami di selatan Jawa. In: H. Harjono et al. (eds.) Pros. Pemaparan Hasil Penelitian Geoteknologi 2015, Pusat Penelitian Geoteknologi (LIPI), Bandung, p. I95-I101.
(online at: http://pustaka.geotek.lipi.go.id/wp-content/uploads/2016/04/Prosiding-2015.pdf
('Paleotsunami study at the south coast of Java'. 2-3 paleotsunami sandy layers identified along S coast of SW Java (Lebak) and C Java (Pangandaran). Thickness ~3-10cm)

Ramadhina, P., R.C. Normana,T.S. Dewi, M. Widyastuti & I.M.D Setiadi (2016)- Investigation of organism heterogeneity and its porosity in limestone based on integrated outcrop data: implication for determining depositional facies of Bulu Formation. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 745-753.

Ridha, M., M. Nurdiansyah, J.S. Zamili, P.T. Triwigati, Y.B. Muslih & W.N. Farida (2018)- Banumeneng calciclastic submarine fan (CSF) as a Late Neogene record in the curvature border of Western Kendeng, Java: new insight for exploration target. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-547-SG, 20p.
(Calciturbidites in Dolok River, Banyumeneng, Demak, in Kerek Fm(?) in W Kendeng zone. With M Miocene planktonic foraminifera and bathyal benthic foraminifera and reworked? Eocene larger foraminifera (Discocyclina, Nummulites, Assilina). Paleocurrent (flute cast) suggest sourced from NNW (Sunda Shelf))

Rinawan, R., J. Sunarja & S. Soeharto (1994)- Ciri mineralisasi emas tipe xenothermal di daerah Cirotan, Jawa Barat. Proc. 23rd Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 2, p. 981-1000.
('Characteristic of xenothermal-type gold mineralization in Cirotan, West Java'. Cirotan Pliocene Au-Ag deposit in Bayah Dome area, SW Java. Host rocks Eocene- Miocene 'Old Andesites'. Nearby microdiorite intrusion with K/Ar age of 4.5 Ma. Au-Ag mineralization associated with dextral strike-slip fault and dated as Late Pliocene (1.7 ± 0.1 Ma). Also contains rel. high T minerals cassiterite and wolframite))

Riswanty, M.A., A.H. Harsolumakso & Y. Rizal R. (2010)- Geologi dan karakterisasi rekahan pada fasies batugamping Formasi Rajamandala daerah Pasir Aseupan dan sekitarnya, Sukabumi, Jawa Barat. Buletin Geologi 40, 3, p. 105-122.
('Geology and characterization of fractures in limestone facies of the Rajamandala Formation in the Pasir Aseupan area and surroundings, Sukabumi, West Java')

Rizal, Y. (2004)- Neogene lithological formations and fossil remains in the Majalengka area (West Jawa, Indonesia). In: Late Neogene and Quaternary biodiversity and evolution, Proc. 18 Int. Senckenberg Conf., Weimar, 3p. *(Extended Abstract)*
(online at: http://www.senckenberg.de/fis/doc/abstracts/94_Rizal.pdf)
(Pliocene marine Kaliwangu Fm (N19) locally overlain by E Pleistocene black clay with freshwater molluscs and vertebrate fossils (cervids, proboscideans and crocodiles). Overlain by Pleistocene fluvial Citalang Fm, also with bone and tooth fragments in conglomerates (= Von Koenigswald 1935 fossil locality))

Rizal, Y., Aswan, Y. Zaim, W.D. Santoso, N. Rochim, Daryono, S.D. Anugrah, Wijayanto, I. Gunawan et al. (2017)- Tsunami evidence in South Coast Java, case study: tsunami deposit along South coast of Cilacap. In: 2nd Int. Conf. Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conf. Series, Earth Environm. Science, 71, 012001, p. 1-12.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012001/pdf)
(Three paleo-tsunami deposits identifid along Cilacap coast of S Java. dated and tied to earthquakes of 1883, 1982 and 2006. Three more older layers. Paleo-tsunami layer characterized by light sands on top of paleo-soil, with common mud clasts and marine benthic foraminifera)

Rizal, Y., R. Lagona & W.D. Santoso (2017)- Turbidite facies study of Halang Formation on Pangkalan River, Karang Duren- Dermaji village, Banyumas district, Central Java- Indonesia. In: 2nd Int. Conf. Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conf. Series, Earth Environm. Science, 71, 012032, p. 1-15.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012032/pdf)
(M Miocene- E Pliocene Halang Fm in Pangkalan river, Banyumas Basin, with five turbiditic facies associations: proximal channel, distal levee, frontal splay 1, crevasse splay, and frontal splay 2. Mud rich system. ~400m thick Late Miocene Kumbang Fm andesitic volcanic breccia reflects sediment supply change)

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(online at: www.ijesrt.com/issues%20pdf%20file/Archive-2016/November-2016/46.pdf)
(Sedimentation of E Pliocene part of Cantayan Fm along Cibeet River in Bogor Trough in Sirnasari area, SE of Bandung. Classic turbidite facies)

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(online at: https://www.smedg.org.au/Rohrlach_Tujuh_Bukit_Copper_Gold.pdf)
(SE-most Java Cu-Au prospects in Bukit Tujuh District, explored since 2007. Main prospects Tumpangpitu Cu-Au-Mo porphyry system and overlying cap of Tumpangpitu Au-Ag oxide System)

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(Study of M-L Miocene Kerek Fm in Kendeng back-arc basin, C Java. Marine clastics of 'dissected arc' provenance type (reflecting uplift of Southern Mountains volcanic arc))

Romario, I.F.B., R.E. Suprapto, D. Pambudi, R. Chandra, I.H. Pratama, M.I. Fauzan, R.J. Pratama & R. Rachman (2016)- Studi paleogeografi Neogen batas cekungan Kendeng- Serayu Utara: tantangan dan implikasi pada konsep eksplorasi minyak dan gas bumi di tinggian Semarang regional Jawa Tengah bagian utara. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 115-126.
(online at: https://repository.ugm.ac.id/273481/)
('Neogene paleogeographic study of the limits of Kendeng-Serayu basin: challenges and implications for oil and gas exploration concepts at the Semarang regional high, north Central Java'. N-S trending Semarang High at W side of Kendeng zone surrounded by oil seeps and possibly migration focus)

Rothpletz, W. (1956)- Gunung Gamping sebelah barat Jogjakarta. Pusat Djawatan Geologi, Bandung, p. 1-5.
('Mount Gamping west of Yogyakarta'. Brief description of Eocene-Miocene limestone outcrop 4 km W of Yogya. Initially viewed as Mioene limestone by Junghuhn, but Eocene foraminifera identified by Gerth (1929))

Roza, S.E.V., L. Jurnaliah & Abdurrokhim (2016)- Biostratigraphy correlation of Jatiluhur, Kalapanunggal, and Subang Formation in northern part of Bogor Through. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 424-427.
(Summary of biostratigraphy work on M-L Miocene (N13-N17) of Cipamingkis and Cileungsi sections. Klapanunggal Lst of uppermost Jatiluhur Fm with Lepidocyclina spp., Katacycloclypeus annulatus and Flosculinella (equivalent of plankton zones N14-N16?))

Rudolph, M.L., L. Karlstrom & M. Manga (2011)- A prediction of the longevity of the Lusi mud eruption, Indonesia. Earth Planetary Sci. Letters 308, p. 124-130.

Rudolph, M.L., M. Manga, M. Tingay & R.J. Davies (2015)- Influence of seismicity on the Lusi mud eruption. Geophysical Research Letters 42, 18, p. 7436-7443.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2015GL065310/epdf)
(Modeling of propagation of seismic waves beneath Lusi mud eruption (E Java) suggests no significant amplification of incident seismic energy in U Kalibeng Fm (source of erupting solids). Hypothesis that Lusi mud eruption was triggered by clay liquefaction after earthquake unlikely. Also other constraints favor nearby drilling activity as trigger of mud eruption)

Rudolph, M.L., M. Shirzaei, M. Manga & Y. Fukushima (2013)- Evolution and future of the Lusi mud eruption inferred from ground deformation. Geophysical Research Letters 40, 6, p. 1089-1092.
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(Ground deformation around Lusi mud volcano, E Java, decaying exponentially. Discharge predicted to decrease to 10% of present rate in 5 years)

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(Carbonate clasts from Lusi feeder conduit brecciated and mobilized to the surface carbonate lithologies buried as deep as possibly ~3.8 km. Since deeper carbonate samples erupted in 2006 belong to typically not overpressured Kujung Fm, an additional overpressure may be generated from deeper units (Ngimbang Fm) (dating mainly by Sr-isotopes)).

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(MT survey supports presence of three Kujung Fm carbonate build-ups in area of Kawengan oilfield and Banyuasin area, C Java)

Santoso, D., E.J. Wahyudi, S. Alawiyah, A.D. Nugraha, S. Widiyantoro, W.G.A. Kadir, P. Supendi, S. Wiyono & Zulkafriza (2017)- Subsurface structure interpretation beneath of Mt. Pandan based on gravity data. In: Southeast Asian Conference on Geophysics, Bali 2016, IOP Conf. Series, Earth Environm. Science 62, 012038, 6p.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012038/pdf)
(Gravity measurements show low density structure beneath dormant Mt. Pandan volcano in E Java. May be interpreted as subsurface magma body, and suggest possibility of magmatic activity below Mt. Pandan)

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(Fault Seal Analysis study in Rajamandala limestone near Bandung. Faults in carbonates generally leaking)

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(online at: https://repository.ugm.ac.id/135460/)
('Calcareous nannofossil biostratigraphy of the Lower Nanggulan Formation based on core from Girimulyo and Nanggulan, Kulon Progo District, DI Yogyakarta'. 175m of UGM-cored section of Songo Beds and Watupuru Beds zones NP15-NP17, Middle Eocene)

Saputro, A.A. & N.I. Setiawan (2016)- Studi petrologi dan geokimia batuan metamorf jalur Sungai Muncar, Desa Seboro, Kemamatan Sabang, Kabupaten Kebumen, Provinsi Jawa Tengah. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 512-529.
(online at: https://repository.ugm.ac.id/273555/)
(Study of the petrology and geochemistry of metamorphic rocks of the Muncar River, Seboro Village, Sadang District, Kebumen, C. Java'. Metamorphic rocks from Muncar River in Lok Ulo complex low P to high P facies (increasing to N?): greenschist, amphibolite, glaucophane blueschist and eclogite. Reflect orogenic metamorphism in subduction environment. Tourmaline-bearing facies probably derived from MORB basalt, eclogite phengite from oceanic intra-plate basalt (OIB). Also presence of serpentinite, marble)

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(East Cepu High NE-SW trending Paleogene paleo-high, with several oil-gas fields in Oligo-Miocene carbonate build-ups. Hydrocarbons from Paleogene Ngimbang Fm source rocks, but from different environments. Hydrocarbons in SE from fluvio-deltaic deposits, in NW from deltaic-shelf deposits)

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(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/272/262)
('The formation of accretionary prisms at Ciletuh Bay in relation to the Cimandiri Fault, West Java'. Series of thrust faults interpreted on (shallow) seismic profiles at Ciletuh Bay, interpreted as accretionary prism)

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(online at: https://repository.ugm.ac.id/273761/1/C-11.pdf)
('Study of tectonic setting, provenance and paleoclimate of the Nanggulan Formation sandstone based on petrographic analysis'. Petrography of Eocene Nanggulan Fm sst of Kulon Progo Dome, C Java, suggests changes in provenance from lower sands from continental block (granitic rock of E Java microcontinent) followed by recycled orogen (low-grade metamorphics; folding-uplift of E Java microcontinent) to undissected magmatic arc in upper Nanggulan Fm (onset of magmatic arc activity). Climate humid-subhumid)

Sato, T., Rendy, D. Syavitri, E. Widianto, D. Priambodo, M. Burhannudinnur & A. Prasetyo (2016)- Unconformities detected by high-resolution calcareous nannofossil biostratigraphy and its effect on petroleum system in Northeast Java Basin. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 461-466.
(Calcareous nannofossil biostratigraphy of NE Java basin well DDR (Dander)-1, interval 110- 2241m (= shale above Ngimbang Lst). Age E Miocene- latest E Pliocene (NN3-NN15). Four unconformities: (1) 1100m (10.54-10.79 Ma); (2) 720m (9.56- 9.67 Ma); (3) 560m (8.52- 8.76 Ma); and (4) 380m (4.0- 7.17Ma). Sedimentation rates 20-40cm/ 1000 years with unconformities. Unconformities correlated to global climatic events such as Asian monsoons intensification (8 -10Ma) and Messinian salinity crisis (5.5Ma) and may be related to global eustacy changes)

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('Geochemical Atlas of West Java'. Distribution maps of 30 elements in stream samples from W Java: Ag, Al, As, Ba, Ca, Ce, Cl, Co, Cr, Cu, Fe, Hg, etc.)

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/237/279)
(Gravity data from Banyumas Basin, C Java, suggest six sub-basins with depocenter of 5.5 km, SE-NW strike-slip fault and E-W trending basement highs)

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(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/345/339)
('Structural pattern and subsurface geological configuration of the North West Java Basin based on gravity analysis'. Gravity analysis suggests average basement depth in NW Java basin is 3.3 km and five subbasins: Bekasi, Rengasdengklok, Cikampek, Subang and Majalengka subbasins)

Setiawan, N.I., M.I. Novian & M.I.K. Aminuddin (2015)- Petrologi, geokimia dan umur batuan granitoid di Komplek Luk-Ulo, Karangsambung, Kebumen, Jawa Tengah. Proc. 8th Seminar Nasional Kebumian, Universitas Gadjah Mada, Yogyakarta, p. 865-880.
('Petrology, geochemistry and age of granitoid rocks in the Luk-Ulo Complex, Karangsambung, Kebumen, Central Java'. Granitoid blocks along upstream Luk-Ulo River four groups, all calk-alkaline, metaluminous types. Zircon ages of granite with graphic texture and hornblende granite all latest Cretaceous (~66-70 Ma); foliated granodiorite and garnet granite / granodiorite with zircon melting ages ~100-120 Ma, with inherited zircons as old as 437± 13 Ma. Cordilleran-type granitoids of Karangsambung normal volcanic arc products, with possibility of post-tectonic collisional granite from partial melting of continental crust)

Setiawan, T. (2012)- Petrologi batuan dasar daerah Rengasdengklok, Jawa Barat dan implikasi tektoniknya serta potensi reservoir hidrokarbon. Ph.D. Thesis, Inst. Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Petrology of basement in the Rengasdengklok area, West Java and implications for tectonics and hydrocarbon reservoirs potential'. NW Java basin N-S trending horsts and grabens. Basement penetrations show fracture porosity and hydrocarbon shows. Pondok Makmur Field in NE Ciputat Basin with basal dolomitic limestone that is fractured and of Eocene- Late Oligocene age)

Setijadji, L.D, A. Imai & K. Watanabe (2007)- Characteristics of mineralized volcanic centers in Javanese Sunda Island Arc, Indonesia. American Geoph. Union, Spring Meeting 2007, Abstract #V23B-08, 1p.
(online at: http://adsabs.harvard.edu/abs/2007AGUSM.V23B..08S)
(Distinct volcanic belts related to Java trench subduction only since Oligocene. Metallic deposits in porphyry, high-sulfidation and low-sulfidation epithermal systems, all tied to subaerial volcanism and subvolcanic plutonism. Some volcanigenic massive sulfides deposits show mineralization in submarine environment. Most mineral deposits related to volcanic centers of Tertiary arcs; no mineralization associated with backarc magmatism. Major metallic deposits tied to deep, old crustal structures (strike-slip faults) . Existing mines in

(1) young (U Miocene- Pliocene) epithermal gold deposits in SW Java; (2) Oligocene-Miocene porphyry Cu-Au deposits, mainly in E Java and probably related to partial melting of subducted slab)

Setijadi, R., A. Widagdo & S.W.A. Suedy (2011)- Metode bioprediksi perubahaniklim menggunakan fosil polen dan spora pada kala Pliosen di daerah Banyumas. Dinamika Rekayasa 7, 1, p. 14-16.
(online at: http://download.portalgaruda.org/)
('Climate change bioprediction method using fossil pollen and spores of Pliocene age in Banyumas'. Pollen and spores in Tapak Fm of indicate Podocarpus imbricatus zone age (Late Pliocene; with Podocarpus imbricatus and Stenochlaenidites papuanus) and 3 hot-cold-hot climate change events)

Setyowati, T.P. & D.H. Amijaya (2016)- Hubungan kekerabatan minyak bumi daerah Wonosegoro dan sekitarnya, Boyolali, Jawa Tengah, berdasarkan data biomarker. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 93-102.
(online at: https://repository.ugm.ac.id/137866/)
('Oil characteristics in Wonosegoro and surrounding areas, Boyolali, Central Java, based on biomarker data'. Biomarkers from oil seeps in Kerek Fm in W Kendeng Zone near Wonosegoro (Gunungsari, Repaking and Kemusu villages). Oils ºAPI 15.8, 29.8, and 18.8, and biodegraded. Probable source rock Ngimbang Fm)

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(Inverse modeling of surface deformation at Lusi mud eruption in E Java suggests volume changes occur in two regions beneath Lusi, at 0.3-2.0 km and at 3.5-4.75 km. Shallow mud source supply ~2-3 times larger than deep source, but additional fluids ascend from >4 km)

Situmorang, B. & S. Pusoko (1989)- Evaluasi geologi rembesan gas di daerah Merapi, Purwodadi, Jawa Tengah. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 23, 2, p.
(online at: www.journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/387)
('Evaluation of the geology of a gas seep in the Merapi region, Purwodadi, Central Java'. Natural gas seep in Merapi area, on W side of Godong High)

Situmorang, B. & L. Tambunan (1985)- Generation and maturation of hydrocarbons in Cepu area, Central Java. Lemigas Scientific Contr. 9, 1, p. 14-21.
(Oil-gas production in Cepu area from upper Tuban (Ngrayong Sand) and Kawengan Fms. Rel.high total organic content (av. 0.75%) in Tuban Fm; low TOC in Kawengan Fm. Thermal maturity confined to Tuban Fm. Kerogen mainly Type III, with limited Type II. Source probably in Tuban Fm and/or deeper section)

Soenandar, H.B. (1999)- The role of the Sunda Shelf as the provenance of western Indonesia Tertiary basin: a zircon fission track study result. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 22. *(Abstract only)*
(Zircon FT data from W Java: SW Java melange and NW Java basin basement: ~88-110 and 191-220 Ma; Eo-Oligocene sediments of Ciletuh, Walat, Jatibarang: ~61-65 and 128-161 Ma, etc.. All rocks strong Late Cretaceous signals, replaced by E Miocene component by E Miocene)

Solihin, M., Abdurrokhim & L. Jurnaliah (2016)- Biozonasi foraminifera planktonik di lintasan Sungai Cipamingkis, daerah Jonggol, Provinsi Jawa Barat. Bull. Scientific Contr. (UNPAD) 14, 1, p. 55-62.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/9791/pdf)
('Planktonic foraminifera biozonation in the Cipamingkis River section, Jonggol, West Java Province'. Jatiluhur Fm in Cipamingkis River with M-L Miocene planktonic forminifera of zones N13-N16)

Solihin, M., P.F. Rahmadhani, R. Sevirajati, H. Taufik & L. Fauzielly (2015)- Distribution of ostracoda from measured section data at Cimerang River, Sukabumi, Jawa Barat. In: Proc. ICG 2015 2nd Int. Conf. and 1st Joint Conf. Faculty of Geology Universitas Padjaran and University of Malaysia Sabah, p. 259-263.

(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/Distribution-of-Ostracoda-from-Measured-Section-Data-at-Cimerang-River.pdf)
(Late M Miocene shallow marine deposits of Nyalindung Mb of Cimandiri Fm in Cimerang-River section, Sukabumi, W Java. Dominated by 6 species of ostracoda: Hemicytheridea ornata, H. reticulata, Cytherella hemipuncta, Cytherelloidea excavata, Cytherella javaseanse and Keijella carriei)

Stoehr, E. (1865)- Die Basaltklippe Batoe Dodol an Java's Ostkuste und ihre Hebung in der Jetztzeit. Neues Jahrbuch Mineral. Geol. Palaeont. 1865, p. 641-650.
(online at: https://www.biodiversitylibrary.org/item/151131#page/667/mode/1up)
('The Batu Dodol basalt cliff at Java's East coast and and its recent uplift'. Dark-colored basalt cliff at easternmost coast of Java, covered by recent coral limestone up to 30-50' above present sea level, suggesting young uplift)

Subagio (2008)- Struktur geologi bawah permukaan daerah Kebumen berdasarkan analisis pola anomali gaya berat dan geomagnet. J. Sumber Daya Geologi 18, 6, p. 391-407.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/259/239)
('Sub-surface geologic structure structures of the Kebumen area based on analysis of gravity and geomagnetic anomaly patterns'. High anomalies in E and W of area have positive circular patterns, probably representing andesite intrusives in Karangbolong and Kulon Progo Highs, and Pratertiary rock in Karangsambung area. Low anomaly anomaly in central area indicates Tertiary sedimentary basin)

Subroto, E.A., A. Ibrahim, E. Hermanto & D. Noeradi (2008)- Contribution of Paleogene and Neogene sediments to the petroleum system in the Banyumas Sub-Basin, Southern Central Java, Indonesia. American Assoc. Petrol. Geol. (AAPG) Int. Conf. Exhibition, Cape Town 2008, 6p. *(Extended abstract)*
(Oil samples from seeps and DST in Jati 1 well in Banyumas sub-basin, C Java, more fluviodeltaic than marine character. Biomarker distributions suggest all one family. Both Paleogene and Neogene intervals possible sources. Postulate NE-SW trending Paleogene basins across C Java ('Meratus Trend'))

Sufiati, E. (2013)- Koleksi museum geologi fosil moluska holotype dari Bumiayu dan Cirebon, Jawa. UPT Museum Geologi, Bandung, p. 1-200.
('The Geological Museum collection of fossil mollusc holotypes from Bumiayu and Cirebon')

Sugiarto, S., I.B.O. Agastya, M.O. Jene, T. Ramadhan & Y.B. Muslih (2018)- Architectural elements of volcanoclastic mass transport of Banyak Member, Western Kendeng, East Java. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-185-G, 16p.
(Banyak Mb is Late Miocene - E Pliocene andesitic volcaniclastic deep marine Mass Transport Deposits (slumps and debris flows) in W Kendeng Basin. Related to renewed and increasing volcanic eruption activity in Southern Mountains of Java)

Suhendra, R. (2016)- Studi petrologi dan geokimia batuan metamorf berasosiasi dengan endapan emas orogenik pada lintasan Sungai Gebang, Desa Kaligua, Kecamatan Kaliwiro, Kabupaten Wonosobo, Provinsi Jawa Tengah. Thesis Gadjah Mada University, Yogyakarta, p. 1-333.
(summary online at: http://etd.repository.ugm.ac.id/...)
(Metamorphic rocks in Gebang River area of Karangsambung Complex, C Java, at least three types (1) overburden metamorphism (zeolite facies), (2) orogenic metamorphism (greenschist, epidote-amphibolite, amphibolite and blueschist facies), and (3) contact metamorphism (hornblende-hornfels and pyroxene hornfels facies). Occurrences of high sulfidation and skarn deposits show placer gold deposits in area not produced by single process (orogenic gold deposit))

Suhendra, R. (2017)- Petrogenesis of very low to low-grade metamorphic rocks in Luk Ulo melange complex, Karangsambung, Indonesia. Proc. 10th Seminar Nasional Kebumian, Dept. Teknik Geologi, Universitas Gadjah Mada (UGM), Yogyakarta, p. 1091-1113.
(online at: https://repository.ugm.ac.id/274159/1/OMP-09.pdf)

(Zeolite- and greenschist-facies metamorphic rocks in Karangsambung area widespread in N part of Luk UloMelange Complex, especially in Gebang River, Kaliwiro area, incl. scaly clay, mica schist, zeolitic rocks and basaltic lava. (S part of complex with higher-grade metamorphics))

Sujatmiko (1994)- Batu permata Jawa Barat: potensi dan permasalahannya. Proc. 23rd Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 2, p. 882-889.
('Gemstones of West Java: the potential and its problems'. Brief review of presence of agate, silicified wood, jasper, opal, etc., in S Mountains of west Java))

Sukiyah, E., I. Haryanto & A. Sudradjat (2016)- The skin tectonic control in the geomorphologic evolution of western part of Java, Indonesia. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 348-351.
(Dominant stress direction remains similar (N100E/ ~E-W strike azimuths) from M Eocene to Pliocene-Quaternary. U Miocene and younger strata same strike direction but generally more gentle dips. Ideal Java geomorphologic zonation from S to N: rel. undeformed plateau in S (Jampang)-(volcanic arc)- intensely folded ridges in middle- thin skin overthrusting in N)

Sunardi, E. (1998)- Paleomagnetic study of selected dykes and lava from Bandung area. Berita Sedimentologi 8, p. 13-16.
(Summary of paleomagnetic study of Plio-Pleistocene volcanics in Bandung area)

Sunardi, E. & B.G. Adhiperdana (2013)- Sedimentologi dan paleohidrologi sedimen fluvial Oligosen Formasi Walat, Sukabumi-Jawa Barat. Bionatura 15, 1, p. 8-13.
(online at: http://jurnal.unpad.ac.id/bionatura/article/view/7212/3311)
(Sedimentology and paleohydrology of fluvial sediments of the Oligocene Walat Formation, Sukabumi, West Java'. Fluvial Walat Fm outcrops show upward decrease of fluvial sinuosity, and rivers becoming more braided, with wider and deeper channels upsection, with more coarse-grained facies Represents relative sediment supply increases beyond capacity of accommodation, possibly related to sea level drop through Paleogene, and global climate change from greenhouse to icehouse conditions in Eocene-Oligocene time (NB: age of Walat Fm more likely Late Eocene?; Lunt 2013))

Sunardi, E. & R.P. Koesoemadinata (1998)- Magnetostratigraphy for the last 4 Ma recorded from volcanic rocks around the Bandung Basin. Proc. 26th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, p. 404-418.
(Plio-Pleistocene magnetic polarity stratigraphy supplemented with K-Ar dating, etc., for lava flows and dykes around Bandung Basin. 15 volcanic units assigned to paleomagnetic zones Gilbert (Selacau - Paseban volcanic unit, with a mean age of 4.1 Ma and having reversed polarity), Gauss (calc-alkalic series of Cipicung, Kromong E and W; 3.3, 3.1 and 2.9 Ma), Matuyama (Cicadas tholeiitic lavas; 1.7 Ma) and Brunhes. Etc.)

Suparka, M.E., M. Aziz, C.I. Abdullah & Suparka (2007)- Mineralization of Cu-Au porphyry deposits in Cihurip and surrounding area, Garut Regency, West Java, Indonesia, Proc. Joint Conv 32nd HAGI, 36th IAGI, and 29th IATMI Ann. Conf., Bali 2006, p.

Surono & M.A. Puspa (2007)- Formasi Semilir di Pegunungan Selatan, Jawa Tengah, suatu hasil letusan dahsyat gunung api Miosen. Proc. Joint Conv. 32nd HAGI, 36th IAGI, and 29th IATMI, Bali, p. 32-39.
('The Semilir Formation in the Southern Mountains of Central Java, a result of an enormous eruption of a Miocene volcano'. Early Miocene volcanics with zircon ages of ~19-20 Ma)

Sutarto, A. Idrus, A. Harijoko, L.D. Setijadji & F.M. Meyer (2015)- Veins and hydrothermal breccias of the Randu Kuning porphyry Cu-Au and epithermal Au deposits at Selogiri area, Central Java, Indonesia. J. Southeast Asian Applied Geol. (UGM) 7, 2, p. 82-101.
(online at: https://jurnal.ugm.ac.id/jag/article/view/26982/16620)
(Randu Kuning prospect at Selogiri, ~40 km SE of Solo. Many Tertiary dioritic rocks in Randu Kuning area, with related porphyry Cu-Au and epithermal Au-base metal-bearing veins. Most porphyry veins cross cut by epithermal-type veins. Two type of hydrothermal breccias)

Sutarto, A. Idrus, A. Harijoko, L.D. Setijadji, F.M. Meyer, S. Sindern & S. Putranto (2016)- Hydrothermal alteration and mineralization of the Randu Kuning Porphyry Cu-Au and intermediate sulphidation epithermal Au-base metals deposits in Selogiri, Central Java, Indonesia. J. Applied Geology (UGM) 1, 1, p. 1-18.
(online at: https://journal.ugm.ac.id/jag/article/view/26951)
(Randu Kuning prospect at Selogiri with both porphyry Cu-Au and intermediate sulphidation epithermal Au-base metals mineralization. Mineralization in porphyry mainly in quartz-sulphides veins and disseminated sulphides. Epithermal mineralization as pyrite+ sphalerite+ chalcopyrite+ carbonate ± galena veins and hydrothermal breccias)

Sutarto, A. Idrus, A. Harijoko, L.D. Setijadji, F.M. Meyer & Danny, R. (2015)- Characteristic of the fluid inclusions in quartz veins at the Randu Kuning porphyry Cu-Au deposit, Selogiri, Central Java. Pros. Seminar Nasional Kebumian X, UPN 'Veteran' University, Yogyakarta, p. 208-220.

Sutarto, A. Idrus, F.M. Meyer, A. Harijoko, L.D. Setijadji & Danny R. (2013)- The dioritic alteration model of the Randu Kuning porphyry Cu-Au, Selogiri Area, Central Java. Proc. Int. Conf. Georesources and Geological Engineering, Yogyakarta, p.122-132.

Sutarto, A. Idrus, F.M. Meyer, A. Harijoko, L.D. Setijadji & Sapto Putranto (2016)- Mineralization style and fluids evolution of the Randu Kuning porphyry Cu-Au and epithermal Au-base metals deposits at Selogiri, Central Java, Indonesia. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 248-259.
(Mineralization at Randu Kuning prospect in Selogiri area of C Java with early porphyry Cu-Au stage and late intermediate sulphidation epithermal Au-base metals stage. Associated with diorite intrusions.)

Svensen, H.H., K. Iyer, D.W. Schmid & A. Mazzini (2017)- Modelling of gas generation following emplacement of an igneous sill below Lusi, East Java, Indonesia. Marine Petroleum Geol., p. *(in press)*
(Lusi mud eruption started in 2006, near Arjuno-Welirang volcanic complex in NE Java. Erupting steam, CO2, and CH4, mud breccia and boiling water. Lusi eruption possibly driven by heat from deep-seated igneous sill from neighboring volcanic arc. CO2 may be from thermally matured organic matter in contact aureole of hypothetical 150m thick sill, emplaced within organic-rich Eocene Ngimbang Fm)

Syarifin (2011)- Paleontologi Formasi Nyalindung. Bull. Scientific Contr. (UNPAD) 9, 1, p. 17-27.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8259/3806)
('Paleontology of the Nyalindung Formation'. Brief review of diverse M Miocene marine fauna in Nyalindung Fm in W Java, long known for rich mollusc faunas. Mollusc assemblages contain 18% Recent species, incl. marker species Siposiprarea caputviverae and Vicaria veurnelli. Larger foraminifera Lepidocyclina (T.) rutteni and L. (T.) kalahabensis indicate zone Tf3 (see also Martin (1911, etc.) and Van der Vlerk (1924, 1928))

Tan Sin Hok (1942)- The Oligocene coal area of Tjikarang (Tjimandiri coalfield, sheet 14 Bajah). Report Geological Survey, Bandung, E42-45, p. *(Unpublished)*
(Survey report for coal in SW Java during Japanese occupation)

Tan Sin Hok (1942)- The results of an investigation of the eastern part of the Soekaboemi- Tjibadak coalfield during June 6- June 16 1942. Report Geological Survey, Bandung, E42-41, 4p. *(Unpublished)*
(Survey report for coal in W Java during Japanese occupation)

Taufik, M. (2007)- Studi detail foraminifera bentonik besar di Formasi Baturaja. Proc. Joint Conv. 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 720-728.
('Detail study of larger benthic foraminifera in the Baturaja Fm'. Larger foraminifera from E Miocene reefal limestones of Baturaja Fm in 3 wells in West Java basin (no real well names or locations given; onshore?). Incl. Lepidocyclina, Austrotrillina, Spiroclypeus, Miogypsina, Miogysinoides, Borelis, etc. (zone Te5). Seven ecozones based on LBF clusters. Equivalent of nannoplankton zones NN1-NN2)

Thayib, E.S. (1977)- The status of the melange complex in Ciletuh Area, South-West Java. Lemigas Scientific Contr. 1, 2, p.
(Same as Thayyib et al. 1977, below)

Tingay, M. (2015)- Initial pore pressures under the Lusi mud volcano, Indonesia. Interpretation (SEG)3, 1, p. SE33-SE49.
(Lusi mud volcano at Porong, E Java erupted continuously since May 2006. Analysis of pore pressures immediately prior to Lusi eruption from nearby (150m) Banjar Panji-1 well indicate all sequences >350m below Lusi overpressured, and follow approximately lithostat-parallel pore pressure increase through Pleistocene clastics, Plio-Pleistocene volcanics (1870- 2833 m) and Miocene Tuban Fm carbonates, with pore pressure gradients of 17.2–18.4 MPa/km. Pore pressures in basal carbonates ~23.0 MPa above hydrostatic. 'Textbook disequilibrium compaction overpressure')

Tingay, M. M. Manga, M.L. Rudolph & R. Davies (2018)- An alternative review of facts, coincidences and past and future studies of the Lusi eruption. Marine Petroleum geology, p. *(in press)*
(Review of likely causes of Lusi mud eruption in E Java. Drilling reports and data confirm wellbore was not intact, there was subsurface blowout, and there was connection between well and eruption. Yogyakarta earthquake too far away to have initiated new eruption. Strongly favor initiation of eruption by oil well drilling)

Titisari, A. D. (2014)- Geochronology and geochemistry of Cenozoic volcanism in relation to epithermal gold mineralisation in western Java, Indonesia. Ph.D. Thesis, School of Earth Sciences, University of Melbourne, p. 1-297. *(Unpublished)*
(W Java hosts low-sulphidation epithermal gold deposits, with most important deposits in Pongkor, Cibaliung, Cikotok and Papandayan districts. Most volcanics with enriched LILE and LREE compositions characteristic of calc-alkaline arcs, but Papandayan basalts depleted LREE contents typical of island arc tholeiites. 40Ar/39Ar ages volcanic host rocks: Papandayan district ~18 Ma; Cibaliung district ~11 to ~9.5 Ma, Cikotok district ~18 - ~4.5 Ma, Pongkor district 2.7- ~2 Ma. Adularia crystallisation ages similar. Magmatic arc across W Java likely linked to SE Asia tectonic evolution, from E Miocene CCW rotation of Kalimantan to Late Miocene-Pliocene subduction. Three main events: E Miocene primitive tholeiite arc (20-18 Ma), M Miocene mature calc-alkaline arc (13-9 Ma) and Late Miocene- Pliocene evolved high-K calc-alkaline and shoshonitic arc (7-2 Ma). E Miocene Papandayan basement thinned island arc crust. Miocene- Pleistocene mineralisation of Cibaliung, Cikotok and Pongkor associated with calc-alkaline arc built on Sundaland continental crust)

Titisari, A.D., D. Phillips & Hartono (2014)- Geochemical variations on hosted volcanic rocks of Cibaliung epithermal gold mineralisation, Banten- Indonesia: implications for distribution of subduction components. J. Southeast Asian Applied Geol. (UGM) 6, 1, p. 39-52.
(online at: https://jurnal.ugm.ac.id/jag/article/download/7216/5655)
(Neogene Sunda-Banda arc hosts various styles of gold mineralisation. Major and trace element data for host basaltic andesites and rhyodacites of Cibaliung epithermal gold mineralisation characteristic of calc-alkaline arcs, with hydrous slab component)

Titisari, A.D., D. Phillips, Prayatna & E.P. Setyaraharja (2017)- 40Ar/39Ar geochronology of volcanic and intrusive rocks in the Papandayan metallic prospect area, West Java, Indonesia. Resource Geology 67, 1, p. 53-71.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/rge.12118/epdf)
(Papandayan metallic district in W Java, Indonesia with epithermal Au-Ag vein system in Arinem area. 40Ar/39Ar ages of basalt (11.7, 18.2 Ma) and andesite (7.7 Ma) samples of Jampang Formation volcanic rocks. Diorite intrusives: Gunung Halang (13.0 Ma), Gunung Lingga (10.8 Ma) and Gunung Buligir (7.4 Ma). Gunung Wayang fine-grained diorite dike 3.95 Ma. Adularia in Arinem vein (18.3 Ma). K-Ar illite ages of Arinem vein (9.4, 8.8 Ma). Ages suggest possibly multiple hydrothermal events)

Titisari, A.D., D. Phillips & E.P. Setyaraharja (2014)- Magmatic arc evolution in the Pongkor epithermal gold mineralisation district. Proc. 7th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, P3O-01, p. 488-503.

(online at: https://repository.ugm.ac.id/136277/1/488-503%20P3O-01.pdf)
(Pongkor epithermal gold mineralisation on NE flank Bayah Dome (~ 80 km SW of Jakarta) hosted in basaltic-dacitic volcanic breccias, lapilli tuffs and andesites. 40Ar/39Ar dating of andesites yielded average age of 2.74 ± 0.03 Ma, but may be age of hydrothermal alteration. Enriched LILE and LREE values characteristic of calc-alkaline arcs. Some andesite samples indicative of high-K calc-alkaline and shoshonite arcs. Temporal evolution from mature arc to evolved arc (high-K calc-alkaline- shoshonite volcanics)

Tuakia, M.Z., B. Sapiie & A.H. Harsolumakso (2015)- Karakteristik dan deformasi pada Satuan Larangan, Banjarnegara, Jawa Tengah. Buletin Geologi (ITB) 42, 1, p. 41-57.
('Deformation characteristics of the Larangan Unit, Banjarnegara, Central Java')

Tun, M.M., I.W.Warmada, A. Harijoko, O. Verdiansyah & K. Watanabe (2014)- High sulfidation epithermal mineralization and ore mineral assemblages of Cijulang prospect, West Java, Indonesia. J. Southeast Asian Applied Geol. (UGM) 6, 1, p. 29-38.
(online at: https://jurnal.ugm.ac.id/jag/article/view/7215/5654)
(Cijulang prospect in Garut District, W Java, high-sulfidation epithermal system in andesite lava and lapilli tuff. Mineralization characterized by pyrite-enargite-gold and associated acid sulfate alteration. Two stages: early Fe-As-S stage (with Au) and later Cu-Fe-As-S stage)

Tun, M.M., I.W.Warmada, A. Idrus, A. Harijoko, R. Al-Furqan & K. Watanabe (2014)- Characteristics of hydrothermal alteration in Cijulang area, West Java, Indonesia. J. Southeast Asian Applied Geol. (UGM) 7, 1, p. 1-9.
(online at: https://journal.ugm.ac.id/jag/article/view/16917)

Uhlig, H. (1980)- Man and tropical karst in Southeast Asia. GeoJournal 4, 1, p. 31-44.
(Mainly on 'cone karst' development in Gunung Sewu in S Mountains of Java. Also similar karst in Nusa Penida, S Bali, and N Bone and Maros in S Sulawesi)

Utoyo, H. & L. Sarmili (2008)- Petrogenesa endapan pasir besi di Pantai Panggul, Trenggalek. J. Geologi Kelautan 6, 2, p. 104-117.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/154/144)
('Petrogenesis of iron sand deposits at Panggul beach, Trenggalek'. Magnetite-rich sands along S coast of E Java derived mainly from outcrops of Oligo-Miocene Mandalika Fm volcanics ('Old Andesites) in S Mountains)

Van Baren, F.A. (1939)- On the occurrence of celestine in Young Tertiary deposits in the Residency Rembang (Java). Geologie en Mijnbouw, n.s., 1, 12, p. 288-290.
(online at: https://drive.google.com/file/d/1dT-hyKAK5hV6zuPilO-LD3dbiUTgqKWX/view)
(Marly soil on Upper Kalibeng Fm on NE Java with 90% of heavy mineral fraction composed of small idiomorphic crystals of celestine (celestite; SrSO4) (origin not clear))

Van den Bergh, G.D., W. Boer, H. de Haas, T.C.E van Weering & R. van Whije (2003)- Shallow marine tsunami deposits in Teluk Banten (NW Java, Indonesia), generated by the 1883 Krakatau eruption. Marine Geology 197, p. 13-34.
(Tsunamite from 1883 krakatau eruption sandy layer with abundant reworked shell and other carbonate fragments. Coarse components consist of locally derived material eroded from seabed. Land-derived components in tsunamite only close to coast. Along open sea-facing slope of Banten Bay tsunamite relatively thin (67cm) but well-preserved)

Van Regteren Altena, C.O. & C. Beets (1945)- Beschouwingen over de toekomst van het onderzoek der Caenozoische mollusken van Nederlandsch-Indie. Geologie en Mijnbouw 7, 5-6, p. 45-50.
('Remarks on the future of research of the Cenozoic molluscs of the Netherlands Indies')

Von Ettingshausen, C. (1883)- Beitrag zur Kenntnis der Tertiarflora der Insel Java. Sitzungsberichte Akademie Wissenschaften, Wien, 87, 1, p. 175-194.

(online at: www.zobodat.at/pdf/SBAWW_87_0175-0193.pdf)
('Contribution to the knowledge of the Tertiary flora of the island of Java')

Von Koenigswald, G.H.R. (1963)- Rims, flow ridges and flanges in Javanese tektites. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, B 66, p. 206-208.
(Mild ablation features (partial melting in Earth's atmosphere) on Pleistocene tektites from Sangiran)

Von Richthofen, F. (1874)- 3. Beobachtungen an dem gehobenen Korallenriff Udjung Tji Laut-oron an der Sudkuste von Java. Zeitschrift Deutschen Geol. Gesellschaft, Berlin, 26, p. 239-250.
(online at: https://babel.hathitrust.org/cgi/pt?id=mdp.39015035474918;view=1up;seq=255)
('Observations on the Udjung Tji Laut-oron raised coral reef on the East coast of Java'. 12-15m uplift of recent coral reef near mouth of Tji-Laut-oron river)

Wardhana, D.D., Kamtono & K.L. Gaol (2016)- Struktur tinggian di sub cekungan Majalengka berdasarkan metode gayaberat. J. Riset Geologi Pertambangan (LIPI) 26, 2, p. 85-99.
(online at: http://jrisetgeotam.com/index.php/jrisgeotam/article/view/278/pdf_88)
('Structural highs in the Majalengka subbasin based on gravity method'. Majalengka sub-basin in E part of Bogor Basin, NE of Bandung, covered by thick volcanic deposits, but with oil and gas seeps. Gravity model show NW-SE reverse faults and E-W and SW-NE shear faults. Depth of basement 2700-5000m. Kadipaten-Majalengka and Ujungjaya-Babakan Gebang structural highs may have hydrocarbon traps)

Wibowo, A.W., A. Pujianto, W. Hindadari, A.W. Soedjono & D.N. Susanti (2014)- Stratigraphic plays in active margin basin: fluvio-deltaic reservoir distribution in Ciputat half graben, Northwest Java Basin. AAPG Int. Conf. Exhib., Istanbul 2014, Search and Discovery Art.10656, 7p. *(Extended Abstract)*
(online at: http://www.searchanddiscovery.com/documents/2014/10656wibowo/ndx_wibowo.pdf)
(Oligocene synrift, 'pre-Talang Akar Fm' fluvio-deltaic clastic deposits in N-S trending Ciputat half-graben. Hydrocarbon-bearing in probable stratigraphic traps. Seismic attributes suggest N-S channel(s))

Wicaksana, H.I., A. Kurniasih & H. Nugroho (2017)- Ichnofossils analysis from Selorejo Formation in Gadu and Temengeng stratigraphic section Sambong, Blora, Central Java. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
(Shallow marine trace fossil assemblages in Late Pliocene (N20-21) Selorejo Fm of NE Java)

Widagdo, A. (2008)- Fase-fase tektonik pembentuk ruang mineralisasi emas di daerah Selogiri- Wonogiri. Dinamika Rekayasa 4, 1, p. 23-29.
('Tectonic phases of gold mineralisation in the Selogiri- Wonogiri area'. Selogiri prospect with metallic minerals pyrite, chalcopyrite, galena, sphalerite, magnetite, ilmenite, gold, etc. Four extensional tectonic phases in the study area, with metal mineralization generated by epithermal processes filling ~N-S trending fractures formed during extensional phase II (E Miocene))

Widagdo, A. & S. Pramumijoyo (2004)- Tectonic phases of structural forming and its relationship with mineralization in Selogiri area, Wonigiri, Central Java. Proc. 1st Int. Symposium on Earth Resources Engineering and Geological Engineering Education, Yogyakarta 2004, p. 25-28.

Widarto, D.S., E. Widianto, Sardjito, E. Purnomo & E. Biantoro (2009)- Gravity and magnetotelluric studies of the South Losari oil prospect, Central Java, Indonesia. Proc. 9th SEGJ Int. Symposium Imaging and interpretation, Sapporo, 4p.
(Gravity anomaly patterns suggest S Losari basement configuration controlled NW-SE trending Riedel shears and step-over splays, which subdivided study area in two depressions)

Widianto, V., A. Priksawan, S.F. Yuflih, R. Kusumawardana, A. Angela, A. Subandrio & C. Prasetyadi (2016)- Ancient Oligo-Miocene volcanoes morphology affect on carbonate facies growth of Wonosari Formation in South East Java. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 638-644.

(E-M Miocene Wonosari Fm limestone in Gedangan and Blitar areas of SE Java developed on slopes of Mandalika island arc volcanoes, causing volcanoclastic sediment influx into shallow carbonate facies)

Widiyantoro, S., Z. Zulhan, A. Martha, E. Saygin, P. Cummins, A.D. Nugraha & I. Meilano (2015)- Towards crustal structure of Java Island (Sunda Arc) from ambient seismic noise tomography. EGU General Assembly, Vienna 2015. *(Poster)*
(P- and S-wave tomography velocity model under Java from ambient seismic noise. Area of low gravity beneath Kendeng zone associated with low velocity zone. Southern Mountain range high gravity anomaly related to high velocity anomaly)

Widyastuti, S., Abdurrokhim & Y.A Sendjaja (2016)- Asal sedimen batupasir Formasi Jatiluhur dan Formasi Cantayan daerah Tanjungsari dan sekitarnya, Kecamatan Cariu, Kabupaten Bogor, Provinsi Jawa Barat. Bull. Scientific Contr. (UNPAD) 14, 1, p. 25-32.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/9813/pdf)
('Provenance of the Jatiluhur and Cantayan Fm sandstones in the Tanjungsari and surrounding area, Cariu district, Bogor, W Java'. M-L Miocene sandstones in Bogor Trough: (1) Jatiluhur Fm (feldspathic wacke, derived from plutonic igneous rock, from Dissected Arc terrane) and Cantayan Fm (lithic arenite, derived from volcanic rock, from Transitional Arc- Undissected Arc terrane). Both units derived from magmatic arc terrane)

Wijayanti, H.D.K., O. Verdiansyah, M.I. Novian, N.I. Setiawan & K. Rohman (2016)- Protolith of Joko Tuo Marble, Bayat, Central Java; contribution to paleoenvironment and age of metamorphic rock. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 319-322.
(Low-metamorphic marble and phyllite form basement outcrop in Joko Tuo area, E Jiwo Hills, C Java. Presence of marble blocks and well-preserved mid-Cretaceous larger foram Orbitolina sp. in foliated chlorite-biotite-graphite)

Yuningsih, E.T. (2016)- Host rock and mineralized ores geochemistry of Arinem vein, Arinem deposit, West Java- Indonesia. Bull. Scientific Contr. (UNPAD) 14, 2, p. 205-222.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/9813/pdf)

Yuningsih, E.T. & H. Matsueda & M.F. Rosana (2016)- Diagnostic genesis features of Au-Ag selenide-telluride mineralization of Western Java deposits. Indonesian J. Geoscience 3, 1, p. 71-81.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/246/206)
(Ore mineralogy of westernmost part of W Java (Pongkor, Cibaliung, Cikidang, Cikotok and Cirotan) characterized by dominance of silver-arsenic-antimony sulfosalt with silver selenides and rarely tellurides over argentite, whereas E part of W Java (Arinem and Cineam) deposits dominated by silver-gold tellurides)

Yuwono, F.S. & Akmaluddin (2015)- Biostratigrafi nanofosil gampingan Formasi Kepek jalur Sungai Rambutan, Kec. Paliyan, Kab. Gunungkidul, Daerah Istimewa Yogyakarta. Pros. Seminar Nasional Kebumian 8, Jurusan Teknik Geologi, Universitas Gadjah Mada, Yogyakarta, p. 391-399.
(online at: https://repository.ugm.ac.id/135459/1/...)
('Calcareous nannofossil biostratigraphy of the Kepek Formation in the Sungai Rambutan section, Kec. Paliyan, Gunungkidul, Yogyakarta Special Area'. Kepek Fm 55m thick and youngest formation of Java Southern Mountains stratigraphy. First appearances of Discoaster asymmetricus and Pseudoemiliana lacunosa allow subdivision into 3 biozones: Sphenolithus neoabies (NN 13), Discoaster asymmetricus (NN 14) and Pseudoemiliana lacunosa (NN 15), of E Pliocene age (~5.1- 3.8 Ma). Equivalent to N19 planktonic foram zone)

Zainudin, A. & D.H. Amijaya (2016)- Hubungan kekerabatan minyak bumi pada antiklin Gabus di daerah Grobogan dan antiklin Kawengan di daerah Bojonegoro, Cekungan Jawa Timur Utara berdasarkan data biomarker. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 139-148.
(online at: https://repository.ugm.ac.id/273483/)
('The relationship of oils from the Gabus anticline in Grobogan and Kawengan anticline in the Bojonegoro area, NE Java Basin based on biomarker data'. Oils from Gabus (Ledok Fm) and Kawengan (Wonocolo Fm

and Ngryong Fm) anticlines are related. API Gravity 24-30 °API, viscosity 2034-71 mm2/ s. Pr /Ph ratio 5.48-11.54, suggesting non-marine rocks with terrestrial Type III kerogen (high land plants. Some biodegradation)

Zeiza, A., N. Stephens & P. Glenton (2017)- A novel approach to the Banyu Urip 3D geologic model update. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-546-G, 13p.
(Updated geologic model of Oligo-Miocene carbonate and clastic reservoirs of Banyu Urip oil-gas field, Cepu Block, E Java. 46 wells drilled. Permeability from logs higher than core-based (matrix) permeability. Best quality reservoir in platform-interior zones (av. porosity 26%y). Drowning-cap dominated by deeper water facies with av. porosity ~15%. Margin zones cemented, recrystallized and rel. tight (av. porosity 9%))

Zheng, C., Z. Zhang, C. Wu & J. Yao (2017)- Genesis of the Ciemas gold deposit and relationship with epithermal deposits in West Java, Indonesia: constraints from fluid inclusions and stable isotopes. Acta Geologica Sinica (English Ed.) 91, 3, p. 1025-1040.
(Two volcanic belts in West Java: (1) late Miocene- Pliocene belt, generating Pliocene-Pleistocene epithermal deposits; (2) late Eocene- E Miocene belt generating Miocene epithermal deposits. Data from Ciemas gold deposit E of Ciletuh Bay (hosted in 'Old Andesites') indicate mixing of magmatic fluid with meteoric water. Miocene epithermal ore deposits in S part of West Java more affected by magmatic fluids and higher degree of sulfidation than those of Pliocene-Pleistocene)

III.2. Java Sea (incl. Sunda-Asri Basins, offshore NW Java basin) (40)

Albab, A. & N.C.D. Aryanto (2017)- Seismic facies of Pleistocene-Holocene channel-fill deposits in Bawean Island and adjacent waters, Southeast Java Sea. Bull. Marine Geol. 32, 1, p. 31-39.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/373/287)
(Sparker seismic profiles in SE Java Sea around Bawean show widespread Pleistocene incised lowstand paleo-channels, with late Pleistocene-Holocene (partial) fill. Older paleo-channels buried by up to 50m sediments. Width of main paleo-channels ~4 km. Two channel types: U-shaped channels in W part and V-shaped channels in E. Internal structure of incised-channels consist of chaotic reflectors at bottom, overlain by parallel-subparallel and almost reflection-free, homogenous sediments)

Arifin, L. & I.W. Lugra & P. Raharjo (2009)- Zona sesar di perairan Kalimantan Selatan (LP 1611). J. Geologi Kelautan 7, 1, p. 11-21.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/166/156)
('Fault zones in the waters S of Kalimantan'. Shallow seismic data indicate young NE-SW fault structures in Java Sea NE of Bawean, now probably inactive. Directions coincide with Muria-Meratus Tectonic Zone)

Aveliansyah, Rinaldo, P. Ponco & U.A. Saefullah (2017)- Stratigraphic play concept potential in offshore North West Java Basin. Case study: Talang Akar Formation in BZZ area. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 4p.
(Deeper play potential in stratigraphc traps in early rift sediments onlapping against basement highs in Talang Akar Fm, Arjuna basin, offshore NW Java)

Bianchi, N. & H. Harsian (2016)- The passive thermal contribution of a dormant pre-Cenozoic giant of the East Java Sea: implications for exploration of the Kangean area. Proc. Indon. Petroleum Assoc. (IPA) 2016 Technical Symposium, Jakarta, IPA 4-TS-16, 13p.
(Large E-W trending pre-Cenozoic faulted synform of 200x50 km in Kangean area below base Cenozoic unconformity nucleated Paleogene extensional features, inverted in late Neogene to form Central High. Three thermal domains, controlled by burial depth of basement: in N and S, where basement near base Cenozoic unconformity, heat flows of 70-80 mW/m2. In C domain, where basement is deeper, heatflows <70 mW/m2, in

axis of synform-60 mW/m2. Presence of pre-Cenozoic basin thus has negative impact on maturation of Eocene Ngimbang Fm source rocks)

Bianchi, N., H. Harsian, F. Febianto, R. Hariutama & D. Juliana (2018)- On the provenance of the Sepanjang oils: evidence from 3D petroleum system modeling. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-23-G, 15p.
(Petroleum system of Kangean area, E Java Sea, controlled by heat flow distribution, overpressure occurrence, and Late Neogene erosion. Charging of Sepanjang Field from late Neogene depocenter that formed in W-C part of Southern Basin as result of uplift and erosion of Central High. Depocenter activated E-ward oil expulsion ring of Paleogene Ngimbang source rock, already overmature to W. Oil remains contained in Ngimbang reservoir complex, thanks to thick overpressured overburden and absence of vertical conduits)

Darmawan, F.H., S. Shahar, T. Kurniawan, M.J.B. Hoesni, A.B. Abu Bakar, M. Mazied, M.A.B. Ismail, G. Kaeng & A.H. Wong Abdullah (2018)- North Madura platform charging and entrapment modeling study: an effort to understand hydrocarbon filling history in Bukit Tua field. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-50-G, 15p.
(Presence of oil and gas fields in N Madura Platform attributed to long distance migration from Central Deep and Madura Basin kitchen areas. In Bukit Tua and Jenggolo Field complex, oils initially trapped in lowest part of N Madura Platform (Ngimbang Fm, CD Carbonate). As charging of oil continued, top seal breached and oil filled overlying Kujung II clastics and carbonates. Later gas generation was able to breach Kujung II)

Fahmi, B., A. Filza A., Y. Irsyadie A., J.A. Pribadi & D. Rakasiwi (2018)- Identification of biogenic gas potential using integrated seismic data, wireline log and geochemistry data; a study case: Muriah sub-basin, Bawean Arc, offshore Northern East Java. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-73-G, 18p.

Harsian, H. (2018)- Exploration challenge in Southern Basin area of East Java basin- an aftermath of South Saubi drilling campaign. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-91-G, 15p.
(South Saubi well S of Kangean island in E Java Sea surprisingly drilled >3500' of Miocene? volcanics/ volcanoclastics, just below top of Kujung Limestone. Exact age of volcanics unknown)

Hartanto, S., B. Sapiie, I. Gunawan & B. Wibowo (2018)- Analisis sekatan dan karakteristik sesar pada Formasi Kujung Reef di Kompleks Lapangan KE, Cekungan Jawa Timur: implikasi terhadap migrasi hidrokarbon. Bulletin of Geology (ITB) 2, 1, p. 134-148.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/4/Paper-1%20vol.%202%20no.%201)
('Seal analysis and fault characteristics in the Kujung Reef Formation at the KE Field Complex, East Java basin: implications for hydrocarbon migration'. Geologic modeling and fault seal analysis of Kujung Reef formation at JS-1 ridge, E Java Sea)

Ichimaru, Y. & H. Inoue (2015)- Exploration and development of Kangean block, East Java, Indonesia. J. Japanese Assoc. Petroleum Technologists 80, 1, p. 19-26.
(online at: https://www.jstage.jst.go.jp/article/japt/80/1/80_19/_pdf/-char/en)
(In Japanese, with English summary. Review of prospectivity of Kangean PSC block in E Java Sea. Two petroleum systems: (1) thermogenic oil-gas with pre-Ngimbang and Ngimbang Fm source rocks; (2) biogenic dry gas in shallow horizons. Terang-Sirasun gas field started production in 2012. S Saubi prospect large reef buildup of Kujung Lst, similar to Banyu Urip oilfield in NE Java (but mainly volcanics; Harsian 2018))

Indah, M.S., M. Natsir, D. Kadar & J. Setyowiyoto (2017)- Reconstruction chronostratigraphy in carbonate reservoirs surrounding wrench fault zone of RMKS, Sakala subbasin, East Java Basin, Indonesia. In: 79th EAGE Conf. Exhib., Paris 2017, p.

Indrasatwika, V., D. Hidayat & Hairunnisa (2017)- The Krisna sand: new potential within the Air Benakat Formation in the Krisna Field, Sunda Basin, Southeast Sumatra. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-124-G, 14p.
(Main producer in Krisna field is Baturaja Fm carbonate reservoir. Also production from some wells from poor-quality 200' thick Krisna Sand of M Miocene Air Benakat Fm (270 MBO cumulative production (?))

Kamila, B., I. Muhsinah & E. Hartanto (2018)- Explore new insights in mature basin using play based exploration and common risk segment map: a case study of Sunda Basin, Indonesia. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-103-G, 13p.
(Play evalution of E Miocene Baturaja Lst Formation in Sunda Basin)

Longley, I., C. Kenyon, A. Livsey & J. Goodall (2017)- Play mapping in the East Java Basin, Indonesia: a methodology for future exploration. In: 79th EAGE Conf. Exhib., Paris 2017, WS10, p.

Maulin, H.B., A. Nugraha, C. Sutisna, A. Prasetya, I. Harun, D. Rubyanto & B. Wibowo (2016)- JS-1 Ridge: exploration in ancient melange basement high. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 98-103.
(JS-1 Ridge in Java Sea is NE-tending horst-like structure, formed in Eocene or before, flanked by East Bawean Trough in W and Central Deep in E. Well basement penetrations in N part dominated by basic plutonic rocks (gabbro, basalt, and serpentinite in one well with ~81 Ma Ar/Ar age). Center of JS-1 Ridge composed of metamorphic rocks. In South diorite, volcano-clastics, to altered andesite (Ar/Ar age ~71 Ma). Southernmost area dominated by (meta-)volcanics, also possible Pretertiary sediments. JS1 rocks possibly represent E-M Cretaceous melange)

Natasia, N., M. K. Alfadli & I. Syafri (2017)- Eocene- Late Miocene tectonostratigraphy of Bima Field in Northwest Java Basin. J. Geol. Sciences Applied Geology (UNPAD) 2, 3, p. 109-118.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/15619/7346)

Nugroho, A., A. Ginanjar, S. Radiansyah & P. Syuhada (2017)- Integrated G & G evaluation to unveil new shallow gas opportunities in Cisubuh Formation, APN Field, ONWJ PSC, Indonesia. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
(Shallow gas in Pliocene Cisubuh Fm sandstones in offshore NW Java basin formerly viewed as shallow drilling hazards, now potential targets (e.g. over ANP, Lima fields). Biogenic gas)

Pangesty, N.J., Aveliansyah, H. Nugroho & D Utomo H. (2017)- Hydrocarbon potential mapping for fractured basement reservoir plays in the offshore North-West Java Block. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-670-SG, 19p.
(Hydrocarbon indications in Pretertiary basement of offshore NW Java Basin mainly in metamorphic rocks (schist, gneiss, marble, quartzite))

Pepper, A.S. & S.J. Matthews (2000)- Structural and petroleum systems modelling of the Eocene Ngimbang-sourced petroleum systems of the eastern East Java Sea. Part 2: Petroleum systems model. AAPG Int. Conf. Exhib., Bali, Indonesia, 1p. *(Abstract only)*
(Thermal modeling of hydrocarbon source potential of coals and carbargillites in Eocene Ngimbang clastics of E Java Sea suggests large areas of basin are at maximum burial and thermal stress today. Due to high oil expulsion temperature (140° C at 5° C/Ma) and relatively limited post-rift deposition areas of effective kitchen severely limited)

Prasetya, A., S. Romi, A. Yumansa, R. Agustiana, M. Setiawan & I.M. Harun (2017)- An incised valley filled system on a Ngimbang Limestone sequence at JS-1 Ridge, offshore East Java Basin, Indonesia. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-507-G, 19p.
(Seismic evidence of undrilled N-S oriented incised valley in mid-Oligocene at Top Lower Ngimbang Fm carbonate-dominated section on JS-1 Ridge in E Java Sea)

Primadani, G.S., I.M. Watkinson, H. Gunawan & D. Ralanarko (2018)- Tectonostratigraphy of the ASRI Basin, SE Sumatera, Indonesia: unlocking the hidden potential of Oligo-Miocene reservoirs and implications for hydrocarbon prospectivity. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-19-G, 14p.
(Brief review of rel. well-known basin)

Rahardiawan R. & C. Purwanto (2014)- Struktur geologi Laut Flores, Nusa Tenggara Timur. J. Geologi Kelautan 12, 3, p. 153-163.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/256/246)
('Geological structures of the Flores Sea, East Nusa Tenggara'. Shallow seismic lines of Flores Sea between SE Sulawesi/Buton and Flores, with accretionary prisms, inactive volcanoes and active faults at seafloor)

Ralanarko, D., J. Sunarta, H. Gunawan, P. Nugroho, W. Wijadhy, C.H. Su & P.X. Sun (2016)- Development of low resistivity pay in Asri Basin, Southeast Sumatera Block, Indonesia. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 108-113.
(Low resistivity of basal rift sandstone reservoirs tied to alluvial fan sediments)

Ramadhan, G.C., Y.D. Setiawati, A. Ginanjar, P.K.D. Setiawan & P.I. Syuhada (2017)- Sub-facies coding of single sand ridge facies: a new approach to interpret detailed sand ridge reservoirs. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 7p.
(Discussion of EMiocene N-S trending shallow marine sand riges in U Cibulakan 'Main' and 'Massive' intervals of K, E and U fields, offshore NW Java basin (see also Setiawati et al. 2017)

Reksalegora, S.W. (1999)- Biogenic structures of the B-28 zone "Main" interval, offshore Northwest Java. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 43-45.
(Brief discussion of bioturbation in M Miocene tide-dominated shoreface to offshore deposits of U Cibulakan Fm B-28 zone of B Field. Common sub-horizontal trace fossils Thalassinoides, Planolites, Chondrites, etc.)

Roniwibowo, A. (2016)- Biogenic gas exploration in the Bawean High, offshore North East Java Basin, Part II. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 480-484.
(Follow-up of Roniwibowo 2014-2015 papers. Hydrocarbon gases in W part of Bawean High thermogenic (from SW part of Bawean High), mixed with 'secondary biogenic' (optimum development between ~1400'-~2750' ss). Late generation of CO2 >90% in Merak wells) probably from local volcanic/magmatic activity)

Santoso, M.A., R. Hidayat & G. Mahar (2016)- Analisis sekatan sesar Abbher pada formasi Ngimbang, lapangan South Ridge, cekungan Jawa Timur bagian utara, Provinsi Jawa Timur. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 182-191.
(online at: https://repository.ugm.ac.id/273486/)
('Analysis of the Abbher fault in theNgimbang formation, South Ridge field, NE Java basin'. Pertamina Hulu South Ridge Field (not real name?) is oil-gas field at NW side of JS-1 Ridge, offshore W Madura Island in E. Java Sea. Cut by by NE-SW trending normal growth fault (syn-rift?; parallel to main E Bawean Trough border fault), which offsets Ngimbang Fm. Shale gouge ratios in 4 wells in Ngimbang Fm suggests sealing fault)

Setianingpring, P. (2016)- Tektonostratigrafi area North Bali III, Cekungan Jawa Timur Utara. S2 Thesis Gadjah Mada University, p. 1-79. *(Unpublished)*
('Tectonostratigraphy of the North Bali III area, NE Java basin'. Tectonostratigraphy study based on 43 seismic lines and 6 wells around the North Bali III Area, offshore NE Java basin. Four tectonostratigraphic units: Pre Tertiary pre-rift, Eocene rifting, Late Eocene-Oligocene post-rift and E Miocene and younger syn-inversion)

Setianingpring, P., E.Y. Sulistiyowati, S. Husein & S.S. Surjono (2016)- Tektonostratigrafi area North Bali III, Cekungan Jawa Timur Utara. Publikasi Ilmiah Pendidikan dan Pelatihan Geologi 12, 2, p. 43-51.

('Tectonostratigraphy of the North Bali III area, NE Java basin'. Geology of offshore block, N of Bali, E of Kangean. M Eocene rifting (Ngimbang clastics), Late Eocene post-rift (Ngimbang Shale), Oligocene post-rift (Kujung- Prupuh carbonates, M Miocene and younger inversions, etc.)

Setiawan, D., F.D. Marianto & D. Dwiperkasa (2017)- Compressional tectonic influence to the structural configuration and its contribution to the petroleum system on the northern platform of East Java Basin. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-71-G, 14p.
(Evidence of compression in Late Oligocene- mid E Miocene of E Java Sea (E-W RMKS fault zone inversion?))

Setiawati, Y.D., G.C. Ramadhan, A. Ginanjar, P.K.D. Setiawan & P.I. Syuhada (2017)- Sand ridge facies architecture of the transgressive shelf system using sand width and thickness ratios: a case study of the Main and Massive interval of Uniform Field, North West Java basin. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-139-G, 14p.
(U Field in Offshore NW Java Basin produces from E-M Miocene shelf sand ridge reservoirs of Main and Massive intervals of U Cibulakan Fm. Mainly N-S trending sand bodies)

Sihombing, E.H., P.K.D. Setiawan, L.J. Wood & P. Syuhada (2018)- Strike-slip rift-basin architecture in offshore area Jatibarang subbasin- new findings and future opportunities. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-203-G, 26p.
(Study of Jatibarang sub-basin of NW Java, N of Cirebon. NW-SE trending border fault of Jatibarang sub-basin (OO-Brebes Fault) likely right-lateral transtensional fault and probably part of Pamanukan-Cilacap Fault Zone. Paleogeography maps of Oligocene Talang Akar Fm syn-rift intervals show alluvial fans and fan delta, sourced from N and E)

Sihombing, E.H., P.K.D. Setiawan, L.J. Wood & P. Syuhada (2018)- Sedimentological characteristics of lacustrine associated reservoir in transtensional rift basin: Lake Singkarak modern analogue application in Lower Talangakar Formation, Jatibarang subbasin, NW Java. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-310-G, 29p.
(Fluvial- lacustrine Lake Singkarak deposits compared to Late Oligocene Talangakar Fm in Jatibarang basin)

Wibowo, I.D., Sobani, L. Fransiska & M. Luciawaty (2018)- Successful story of proving-up a new play, an Eocene carbonate as a naturally fractured reservoir in offshore North West Java. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-317-G, 14p.
(Gas tested from fractured'Eocene pre-rift limestone in Kencanaloka Field, KLD Block, S Arjuna sub-basin, NW Java. (NB: Eocene limestones not known from NW Java, and no evidence for age reported here; HvG))

Wijaya, A.K., M. Mazied, G. Fauzi & R. Spayung (2018)- Re-consideration of hydrocarbon migration in North Madura Platform area; an implication to the new exploration potential. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-314-G, 14p.
(N Madura Platform hydrocarbon producing area between two mature kitchens: Madura subbasin in S and Central Deep N and W. Hydrocarbon migration from Madura sub-Basin before inversion at ~7 Ma, but hydrocarbon migration from Central Deep in question, due to steep border fault and predicted poor reservoir quality of syn-rift deposits along fault. Oil geochemistry and basin modeling indicate N Madura Platform oils charged by both kitchens: mixed terrigenous-algal organofacies source from Ngimbang shale in Central Deep (expulsion since 22 Ma) and mainly terrigenous organofacies source in S part of platform)

Wijaya, A.K. & E. Yogapurana (2016)- The important role of burial diagenesis in reservoir quality development, case study from Oligo-Miocene carbonate, North Madura Platform. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 592-597.
(Most of secondary porosity in carbonates results from subaerial exposure and meteoric diagenesis, but Oligo-Miocene carbonate in N Madura Platform also evidence of late dissolution during burial diagenesis.)

Wijaya, A.K. & E. Yogapurana (2017)- The Oligo-Miocene carbonates evolution in North Madura Platform, the effect to the reservoir complexity distribution. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 4p.
(Oligo-Miocene carbonates (CD and Kujung formations) in N Madura Platform developed as rimmed carbonate platform complex. Four growth stages. Complex diagenetic history; most porosity is formed by dissolution of some grains, micrites and cements. Several undrilled patch reef complexes in study area)

Xue, F., R.J. Broetz & E. Sirodj (2002)- Seismic evaluation of hydrocarbon prospedivity in offshore North Bali, Indonesia. Indonesia 2002 Acreage review, Petroleum Expl. Soc. Australia (PESA) News 56, 1p. *(Abstract)*
(Examples of 2D seismic section showing Oligocene carbonate platform and post- E Pliocene inversion of normal faults)

Yazid, Y., A.D. Haryanto & J. Hutabarat (2017)- Hubungan antara geokimia minyak bumi dan batuan induk di sub-cekangan Arjuna Tengah, Cekungan Jawa Barat Utara. Bull. Scientific Contr. (UNPAD) 15, 1, p. 69-86.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/11739/pdf)
('The relationship between geochemistry of oils and source rocks in the Central Arjuna sub-basin, NW Java Basin'. Source rock in Talang Akar Fm in offshore wells YZD-1, YY-1 and DZN-1 with kerogen types II-III, from terrestrial and algal sources. Oil samples suggest deep and shallow lake depositional environments, with mixture of higher plants and algae. Burial history modeling suggests oil generation in basal Talang Akar Fm began in E Miocene, deltaic Talang Akar in M Miocene)

Zhu, X., S. Li, J. Ge, D. Zhong, Q. Zhang & D. Ge (2018)- Paleogene sequence framework and depositional systems in the Sunda and Asri Basins, Indonesia. Interpretation 6, 2, p. T377-T391.
(Banuwati Fm, Zelda and Gita Members in Oligocene of Sunda and Asri Basins divided into six 3rd-order sequences. Sedimentary evolution consistent with tectonic evolution)

III.3. Java - Quaternary Volcanism (50)

Abdurrachman, M., E. Suparka, R. Chrysant, H. Handley, D.P. Adli & J.N. Indriyanto (2017)- Subducted components and lithospheric contributions to arc magmatism in Java: insight from the distribution of major and trace elements of Quaternary volcanic rocks. Proc. Joint HAGI-IAGI-IAFMI-IATMI Conv. (JCM 2017), Malang, p.
(Major and trace elements of Papandayan and Merapi volcanoes are significantly above other Java volcanoes of similar depth above Wadati-Benioff zone)

Abdurrachman, M. & M. Yamamoto (2011)- Geochemistry of Papandayan and Cikuray volcanoes: mapping the extent of Gondwana continental fragment beneath Java, Indonesia. American Geophys. Union (GSA), Fall Meeting 2011, Abstract V43C-2599, 1p. *(Poster presentation)*
(Geochemistry of contiguous volcanoes Papandayan (medium-K basaltic andesite (Early Stage), andesite (Middle Stage) and dacite (Late Stage); high 87Sr/86Sr) and Cikuray (low-K, low 87Sr/86Sr, etc.) suggests mixing of low-K Cikuray-type magma with Gondwanan continental fragment material (Pre-Cambrian-Devonian Australian granites) at Papandayan. Two volcanoes reflect change in underlying basement type in West Java: Sunda Land in N, Gondwana continent fragment in S. Papandayan volcano probably only Quaternary volcano underlain by Gondwana continental fragment)

Abdurrachman, M. & M. Yamamoto (2012)- Geochemical variation of Quaternary volcanic rocks in Papandayan area, West Java, Indonesia: a role of crustal component. In: Proc. 12th Reg. Congress Geology, Mineral and Energy Resources of Southeast Asia (GEOSEA 2012), Bangkok, J. Geol. Soc. Thailand, p. 40-57.
(Papandayan and adjacent Cikuray volcanoes S of Bandung, W Java. Rel. high K2O and isotopic ratios of Papandayan magmas due to contamination from underlying Gondwana continental fragment)

Bardintzeff, J.M. (1984)- Merapi volcano (Java, Indonesia) and Merapi-type nuee ardente. Bull. Volcanologique 47, 3, p. 433-446.

Bourdier, J.L., J.C. Thouret, l. Pratomo, P.M. Vincent & G. Boudon (1997)- Menaces volcaniques au Kelut (Java, Indonesie): les enseignements de l'eruption de 1990. Comptes Rendus Academie Sciences, Paris, ser. IIa, 324, 12, p. 961-968.
('Volcanic hazards at Kelut volcano (Java island, Indonesia): lessons learned from the 1990 eruption')

Brun, A. (1909)- Quelques recherches sur le volcanisme aux volcans de Java, 4. Archives Sciences Phys.Naturelles, Geneve 27, p. 113-150.
('Some investigatios of the volcanism of volcanoes of Java. Old, brief descriptions of activity of Semeru, Bromo)

Carey, S., H. Sigurdsson, C. Mandeville & S. Bronto (1996)- Volcanic hazards from pyroclastic flow discharge into the sea: examples from the 1883 eruption of Krakatau, Indonesia. In: Volcanic hazards and disasters in human Antiquity, Geol. Soc. America (GSA), Special Paper 345, p. 1-14

Caudron, C., D.K. Syahbana, T. Lecocq, V. Van Hinsberg, W. McCausland, A. Triantafyllou, T. Camelbeeck, A. Bernard & Surono (2015)- Kawah Ijen volcanic activity: a review. Bull. Volcanology 77, 16, p. 1-39.
(online at: https://link.springer.com/content/pdf/10.1007%2Fs00445-014-0885-8.pdf)
(Historic activity since 1770 of Kawah Ijen (2386 m), a composite volcano within Pleistocene Ijen caldera, easternmost Java)

De Belizal, E. (2012)- Les corridors de lahars du volcan Merapi (Java, Indonesie) : des espaces entre risque et ressource. Contribution a la geographie des risques au Merapi. Doct. Thesis Universite Pantheon-Sorbonne - Paris I, p. 1-495.
(online at: https://tel.archives-ouvertes.fr/file/index/docid/931862/filename/de-belizal_edouard--these.pdf)
('The lahar corridors of the Merapi volcano (Java, Indonesia): spaces between risk and resource. Contribution to the risk geography at Merapi')

Erdmann, S., C. Martel, M. Pichavant, J.L. Bourdier, R. Champallier, J.C. Komorowski & N. Cholik (2016)- Constraints from phase equilibrium experiments on pre-eruptive storage conditions in mixed magma systems: a case study on crystal-rich basaltic andesites from Mount Merapi, Indonesia. J. Petrology 57, 3, p. 535-560.
(online at: https://academic.oup.com/petrology/article/57/3/535/1752840)
(Experiments on Merapi volcano basaltic andesites suggests pre-eruptive reservoir partially crystallizes at ~100-200 MPa (4.5- 9 km). Magmas are stored at ~925–950°C with melt H2O content of ~3–4 wt %. Pre-eruptive recharge magmas T 950 -1000°C, and higher melt H2O content of ~4-5 wt %)

Escher, B.G. (1919)- De Krakatau groep als vulkaan. Handelingen Eerste Nederl. Indisch Natuurwetensch. Congres, Weltevreden, p. 28-35.

Francis, P. W. (1985)- The origin of the 1883 Krakatau tsunamis. J. Volcanology Geothermal Research 25, 3-4, p. 349-363.
(Three hypotheses proposed to explain causes of 1883 Krakatau tsunami: (1) collapse of N part of Krakatau island (Verbeek, 1884); (2) submarine explosion (Yokoyama, 1981), and (3) emplacement of pyroclastic flows (Latter, 1981). Most likely mechanism Mt. St. Helens-like scenario, close to hypothesis of Verbeek, in which collapse of part of original volcanic edifice propagated major explosion)

Handini, E., T. Hasenaka, A. Harijoko & Y. Mori (2017)- Variation of slab component in ancient and modern Merapi products: a detailed look into slab derived fluid fluctuation over the living span of one of the most active volcanoes in Sunda Arc. J. Applied Geology (UGM) 2, 1, p. 1-14.
(online at: https://jurnal.ugm.ac.id/jag/article/view/30253/18263)
(Holocene eruptions of Merapi medium-K calc alkaline before 1900 years ago and high-K after that. Change attributed to increasing sediment input as volcano matures. Ancient Merapi sample higher input of slab derived fluid (1.5 % of sediment derived fluid) than 2006 eruption of Modern Merapi, opposite of suggested trend)

Handley, H.K., M. Reagan, R. Gertisser, K. Preece, K. Berlo, L.E. McGee, J. Barclay & R. Herd (2018)- Timescales of magma ascent and degassing and the role of crustal assimilation at Merapi volcano (2006-2010), Indonesia: constraints from uranium-series and radiogenic isotopic compositions. Geochimica Cosmochimica Acta 222, p. 34-52.
(Isotopic data sets from 2006 and 2010 eruptions at Merapi volcano,C Java, indicate relatively rapid ascent of more undegassed magma responsible for more explosive behaviour in 2010)

Harijoko, A., R. Uruma, Wibowo, E. Haryo, L.D. Setijadji, A. Imai, K. Yonezu & K. Watanabe (2016)- Geochronology and magmatic evolution of the Dieng volcanic complex, central Java, Indonesia and their relationships to geothermal resources. J. Volcanology Geothermal Res. 310, p. 209-224.
(Dieng volcanic complex three volcanic episodes: pre-caldera (>1 Ma), second (0.3-0.4 Ma) and youngest (after 0.27 M). Each episode distinct differentiation trends, indicating multiple shallow magma chambers)

Hartono, U. (1994)- The olivine, pyroxene and amphibole chemistry from the Wilis volcano complex, East Jawa: implications for temperatures andpressures of the magma. J. Geologi Sumberdaya Mineral 4, 37, p. 7-19.
(Pyroxenes from Wilis basalt and andesite crystallized at T of 1150°C and 947°C respectively. Amphibloses from Wilis dacite crystallized at pressure of ~5 kb)

Hartono, U. (1999)- Fractional crystallization and the origin of compositional gap between basaltic andesite and silicic rocks in the Wilis magmatism. J. Geologi Sumberdaya Mineral 9, 90, p. 2-8.

Koulakov, I., G. Maksotova, K. Jaxybulatov, E. Kasatkina, N.M. Shapiro, B.G. Luehr, S. El Khrepy & N. Al-Arifi (2016)- Structure of magma reservoirs beneath Merapi and surrounding volcanic centers of Central Java modeled from ambient noise tomography. Geochem. Geophys. Geosystems 17, 10, p. 4195-4211.
(online at: http://gfzpublic.gfz-potsdam.de/pubman/item/escidoc:1975923:7/component/escidoc:1978904/1975923.pdf)
(3D S-wave velocity model of upper crust down to 20 km under C Java from seismic ambient noise from >100 seismic stations. Large low-velocity anomaly under S flank of Merapi, with two layers: (1) upper ~1 km cover

of volcanoclastic deposits and (2) anomaly at ~4–8 km (possible magma reservoir). Under Merapi summit, low-velocity anomaly at~8 km , possibly active magma reservoir that feeds eruptive activity of Merapi)

Lavigne, F. (1998)- Les lahars du volcan Merapi, Java central, Indonesie: declenchement, budget sedimentaire, dynamique et zonage des risques associes. Ph.D. Thesis Universite Blaise Pascal, Clermont-Ferrand, p. 1-539.
('The lahars of Merapi Volcano, Central Java, Indonesia: triggering, sediment budget, dynamics and zoning of associated risks')

Lavigne, F. & J.C. Thouret (2002)- Sediment transportation and deposition by rain-triggered lahars at Merapi Volcano, Central Java, Indonesia. Geomorphology 49, p. 45-69.

Lavigne, F., J.C. Thouret, D.S. Hadmoko & C.B. Sukatja (2007)- Lahars in Java: initiations, dynamics, hazard assessment and deposition process. Forum Geografi 21, 1, p. 17-32.
(online at: http://journals.ums.ac.id/index.php/fg/article/view/1822/1274)
(Lahar term for rapidly flowing, high-concentration, poorly sorted sediment-laden mixtures of rock debris and water from a volcano. Resulting deposits poorly sorted, massive, made up of clasts (mainly volcanics) in mud-poor matrix Lahars may be direct result of eruptive activity or not temporally related to eruptions. Etc.)

Maeno, F., S. Nakada, M. Yoshimoto, T. Shimano, N. Hokanishi, A. Zaennudin & M. Iguchi (2018)- A sequence of a plinian eruption preceded by dome destruction at Kelud volcano, Indonesia, on February 13, 2014, revealed from tephra fallout and pyroclastic density current deposits. J. Volcanology Geothermal Res., 18p.   *(in press)*
(online at: https://www.sciencedirect.com/science/article/pii/S0377027317301385)
(Reconstruction of 2014 Kelud eruption sequence. Plinian phase preceded by destruction of earlier lava dome)

Mulyaningsih, S. (2002)- Volcano-stratigraphy of the South Plain of Merapi, Yogyakarta: implication of volcanic activities to the civilization performance in the 8-16th centuries. Proc. 31st Ann. Conv. Indon. Assoc. Geol. (IAGI), Surabaya, 2, p. 397-411.
(Four periods of major eruption disasters at S side of Merapi: 8th, 10th (1006, demise of 'Old Mataram'?), 13th and 16th (1587) centuries)

Mulyaningsih, S. & S. Bronto (2000)- Genesis of the ancient Borobudur Lake, Central Java, related to Merapi volcano activities. Proc. 29th Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 4, p. 149-154.
(Borobudur temple 27 km W of Merapi volcano built in area surrounded by former lake, possibly formed by damming of Progo River by Merapi eruption deposits around 1710 BC. Lake deposits ~13m thick)

Mulyaningsih, S., S. Hidayat, B.A. Rumanto & G. Saban (2016)- Identifikasi karakteristik erupsi gunung api Merbabu berdasarkan stratigrafi dan mineralogi batuan gunung api. Pros. Seminar Nasional Aplikasi Sains & Teknologi (SNAST 2016), Yogyakarta, p. 85-97.
(online at: http://journal.akprind.ac.id/index.php/snast/article/view/757/484)
('Identification of eruption characteristics of Merbabu volcano based on the stratigraphy and mineralogy of volcanic rocks')

Nadeau, O., A.E. Williams-Jones & J. Stix (2013)- Magmatic-hydrothermal evolution and devolatilization beneath Merapi Volcano, Indonesia. J. Volcanology Geothermal Res. 261, p. 50-68.

Nasution, A., M.N. Kartadinata, T. Kobayashi, D. Siregar, E. Sutaningsih, R. Hadisantono & E. Kadarstia (2004)- Geology, age dating and geochemistry of the Tangkuban Parahu geothermal area, West Java, Indonesia. J. Geothermal Res. Soc. Japan 26, 3, p. 285-303.
(online at: https://www.jstage.jst.go.jp/article/grsj1979/26/3/26_3_285/_pdf)
(Three main episodes of volcanic activity in Mt. Sunda volcanic complex (Sunda, Burangrang and Tangkuban Parahu volcanoes): (1) Batunyusun Andesite (1.1 Ma), which unconformably overlies Neogene sediments; (2) Sunda Volcanics (0.56 and 0.18 Ma; Sunda Andesite and huge volume of pyroclastics covering area of 200 km2

and with caldera-forming eruption between 0.205-0.18 Ma; (3) Tangkuban Parahu andesite and pyroclastics (62-22 ka). Younger craters at 9980-1440 yrs BP. No magmatic eruption since 1600)

Neumann van Padang, M. (1933)- De Krakatau voorheen en thans. De Tropische Natuur 22, 8, p. 137-150.
(online at: http://natuurtijdschriften.nl/download?type=document;docid=511015)
('Krakatau, then and now'. Popular review of development of Krakatau volcano, 50 years after 1883 eruption)

Niermeyer, J.F. (1900)- De vulkaan Idjen in Besoeki. Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap (2), 17, p. 735-763.
(online at: https://babel.hathitrust.org/cgi/pt?id=mdp.39015077870965;view=1up;seq=771)
('The Ijen volcano in Besoeki')

Nomanbhoy, N. & K. Satake (1995)- Generation mechanism of tsunamis from the 1883 Krakatau eruption. Geophysical Research Letters 22, 4, p. 509-512.
(Three models previously proposed for large tsunami generated by 1883 eruption of Krakatau: (1) large-scale caldera collapse of N part of Krakatau Island; (2) emplacement of pyroclastic flow deposits; (3) submarine explosion. Modeling suggests all three models displace same volume of water (11.5 km³), but in different ways. Submarine explosion model of 1-5 min duration best explains generation of largest tsunami)

Oba, N., K. Tomita, M. Yamamoto, S. Bronto, M. Istidjab, A. Sudradjat & T. Suhanda (1983)- Geochemical study of some volcanic products from Galunggung volcano, West Java. Reports Fac. Science, Kagoshima University (Earth Sci. & Biol.), 16, p. 1-20.
(online at: http://ir.kagoshima-u.ac.jp/bitstream/10232/5937/1/AN00040884_1983_001.pdf)
(Volcanic products og 1982 Galunggung eruptions range in chemical composition from basaltic andesite to basalt. Silica-contentof first stage (April 5-8 of 1982) ~55 wt. %, later stages ~50%)

Pawellek, T. (2013)- Die grossen Caldera-Systeme Zentral-Indonesiens. Der Aufschluss 64, 4/5, p. 250-261.
('The large caldera systems of Central Indonesia'. Popular review of calderas of E Java (Tengger-Semeru, Ijen) and Bali (Batur))

Peters, S.T.M., V.R. Troll, F.A. Weis, L. Dallai, J.P. Chadwick & B. Schulz (2017)- Amphibole megacrysts as a probe into the deep plumbing system of Merapi volcano, Central Java, Indonesia. Contrib. Mineralogy Petrology 172, 16, p. 1-20.
(Metastable calcic amphibole megacrysts in basaltic andesites of Merapi volcano, C Java, crystallised at pressures of >500 MPa (mid- to lower crust))

Prambada, O., Y. Arakawa, K. Ikehata, R. Furukawa, A. Takada, H.E. Wibowo, M. Nakagawa & M. N. Kartadinata (2016)- Eruptive history of Sundoro volcano, Central Java, Indonesia since 34 ka. Bull. Volcanology 78, 81, p. 1-19.
(Sundoro volcano 65 km NW of Yogyakarta, with 12 eruptive groups)

Pratama, A., S. Bijaksana, M. Abdurrachman & N.A. Santoso (2018)- Rock magnetic, petrography, and geochemistry studies of Lava at the Ijen Volcanic Complex (IVC), Banyuwangi, East Java, Indonesia. Geosciences 8, 183, p. 1-14.
(online at: https://www.mdpi.com/2076-3263/8/5/183/pdf)
(Rock magnetic studies of basaltic- andesitic lavas from Ijen Volcanic Complex, East Java)

Preece, K., R. Gertisser, J. Barclay, S.J. Charbonnier, J.C. Komorowski & R.A. Herd (2016)- Transitions between explosive and effusive phases during the cataclysmic 2010 eruption of Merapi volcano, Java, Indonesia Bull. Volcanology 78, 54, p. 1-16.

Putriastuti, M., T. Yudistira, A.D. Nugraha, S. Widiantoro & J.P. Metaxian (2017)- Ambient noise tomography of Merapi complex, Central Java, Indonesia: a preliminary result. In: Southeast Asian Conference on Geophysics, Bali 2016, IOP Conf. Series, Earth Environm. Science 62, 012040, 6p.

(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012040/pdf)
(Ambient noise seismic velocity tomography around Mt. Merapi show pronounced NNW-SSE positive anomaly from under Mt. Merapi to Mt. Merbabu, interpreted as old basaltic lava. Negative anomalies in E and W flanks)

Ramdhan,M., S. Widiyantoro, A.D. Nugraha, A. Saepuloh, J.P. Metaxian, S. Kristyawan et al. (2017)- Seismic travel-time tomography beneath Merapi volcano and its surroundings: a preliminary result from DOMERAPI Project. In: Southeast Asian Conference on Geophysics, Bali 2016, IOP Conf. Series, Earth Environm. Science 62, 012039, 6p.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012039/pdf)
(New tomographic imaging shows higher resolution at shallow depths (<35 km) below Merapi volcano, C Java. Magma reservoirs detected at ~27km and 12km depth. Dipping low velocity material rises from ~100km depth)

Saibi, H., E. Aboud, A. Setyawan, S. Ehara & J. Nishijima (2012)- Gravity data analysis of Ungaran Volcano, Indonesia. Arabian J. Geosciences 5, 5, p. 1047-1054.
(Hot springs around Ungaran volcano structurally controlled and from depths of 1-3 km)

Santoso, N.A., S. Bijaksana, K. Kodama, D. Santoso & D. Dahrin (2017)- Multimethod approach to the study of Recent volcanic ashes from Tengger Volcanic Complex, Eastern Java, Indonesia. Geosciences 7, 3, 63, p. 1-12.
(online at: http://www.mdpi.com/2076-3263/7/3/63)
(Comparison of ashes from 2010 eruption of Bromo with two older tuff layers from same caldera, Widodaren Tuff (1.8 ka) and Segarawedi Tuff (33 ka))

Sigurdsson, H., S. Carey, C. Mandeville & S. Bronto (1991)- Pyroclastic flows of the 1883 Krakatau eruption. EOS Transactions American Geophys. Union (AGU) 72, 36, p. 377-381.
(1990 marine geological investigation of Krakatau 1883 deposits show deposits mainly of pyroclastic flow origin (partially fluidized mixtures of particles and gases that travel up to 150 m/s, with internal temperatures up to 600°C). Density likely comparable to seawater. One well-known effect is generation of tsunamis)

Stoehr, E. (1868)- Der Vulkan Tengger in Ost-Java, mit landschaftlicher Ansicht und einer Tafel geologischer Profile. Durkheim, p. 1-49.
(see also: Tijdschrift Nederlandsch-Indie 1869, 2, p. 258-290)
('The Tengger volcano in East Java')

Stoehr, E. (1878)- Die Provinz Banjuwangi mit der Vulkangruppe Idjen Raun in Ost-Java. Abhandlungen Senckenberg Naturforsch. Gesellschaft, Frankfurt, p. 1-120.
(online at: https://ia800303.us.archive.org/30/items/mobot31753003649065/mobot31753003649065.pdf)
('The Banyuwangi Province with the Ijen-Raun volcano group in East Java'. Early geographic- geologic description of easternmost part of Java, with focus on recent volcanoes)

Sutawidjaja, I.G. & R. Sukhyar (2009)- The cinder cones of Mount Slamet, Central Java, Indonesia. Proc. 38th Ann. Conv. Indon. Assoc. Geol. (IAGI), Semarang, 21p.
(Mount Slamet volcanic field in C Java with 35 partly degraded cinder cones up to 185m high on E flank and E side of volcano. Most cinder cones lie on Tertiary sediments, along NW-trending fault system and on radial fractures. K-Ar age of scoria bomb 0.042 + 0.02 Ma)

Syafri, I., E. Sukiyah & Hendarmawan (2014)- The chemical and mineralogical characteristics of Quaternary volcanic rock weathering profile in the southern part of Bandung Area, West Java, Indonesia. Int. J. Science and Research (IJSR) 3, 4, p. 79-85.
(online at: https://www.ijsr.net/archive/v3i4/MDIwMTMxMzg4.pdf)

Wichmann, A. (1900)- Der ausbruch des Gunung Ringgit auf Java im Jahre 1593. Zeitschrift Deutschen Geol. Gesellschaft, Berlin, 52, 4, p. 640-660.
(online at: https://www.biodiversitylibrary.org/item/148377#page/782/mode/1up)

('The eruption of Mt. Ringgit on Java in the year 1593'. Historic records of significant volcanic activity above Panarukan, with possibly 10,000 people killed)

Yokoyama, I. (2014)- Krakatau caldera deposits: revisited and verification by geophysical means. Annals of Geophysics 57, 5, S0541, p. 1-11.
(online at: www.annalsofgeophysics.eu/index.php/annals/article/view/6404/6384)

Yokoyama, I. (2015)- Eruption products of the 1883 eruption of Krakatau and their final settlement. Annals of Geophysics 58, 2, S0220, p. 1-13.
(online at: www.annalsofgeophysics.eu/index.php/annals/article/view/6529/6509)
(Verbeek (1886) estimate of 12 km3 volume of Krakatau 1883 eruption ejecta revised to 19 km3, much more than volume of disrupted volcano edifice (8 km3). Does not support hypothesis that calderas formed by collapses of volcano edifices into magma reservoirs)

Yokoyama, I. & D. Hadikusumo (1969)- Volcanological survey of Indonesian volcanoes, Part 3. A gravity survey on the Krakatau Islands, Indonesia. Bull. Earthquake Res. Inst. (Tokyo University) 47, p. 991-1001.

Zen, M.T., M. Alswar, S.H. Simatupang & G. Yuniart (1983)- Tektogenesa- gravitasi dan daur magmatik di sepanjang deretan volkanik Ungaran-Merapi di Jawa Tengah. Proc. 12th Ann. Conv. Indon. Assoc. Geol. (IAGI), Yogyakarta, p.
('Tektogenesis, gravity and magmatic cycles along the Ungaran-Merapi volcano row in Central Java')

Zen, M.T. & D. Hadikusumo (1965)- The future danger of Mt. Kelut (Eastern Java- Indonesia). Bull. Volcanology 28, 1, p. 275-282.

III.4. Madura- Madura Straits (15)

Arifin, L.& D. Kusnida (2009)- Mud diapir di perairan selatan Pulau Madura. J. Geologi Kelautan 7, 3, p. 135-144.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/178/168)
('Mud diapyrs in waters south of Madura Island'. Shallow seismic reflection lines show 10 mud diapyrs and gas-bearing sediments in N Madura Straits, S of E Madura Island from Sampang to Kalianget)

Arifin, M.T. & A. Ferguson (2017)- Reservoir characterization using seismic attributes and inversion analysis of Globigerina Limestone reservoir, Madura Strait, Indonesia. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-267-G, 16p.
(Hydrocarbons in latest Miocene- E Pliocene Mundu Fm bioclastic limestone reservoir of Madura Strait mainly formed of Globigerina planktonic foraminifera. Seismic inversion study shows W part of Mundis (=Maleo?) field more fractured, due to more fragile, cleaner facies. More porous reservoir in upper part of Mundu Fm. Two flat spots on seismic: lower at paleo oil-water contact, upper flat spot at present oil-water contact)

Arisandy, M. & W. Ardhana Darma (2016)- Our future is gas: the geology of the gas producer Mio-Pliocene Mundu Member *Globigerina* Limestone in East Java Basin. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 549-554.
(Pliocene Mundu Globigerina limestone one of main gas producers in E Java Basin. Reservoir winnowed planktonic foraminifera pelagic rains on crests of anticlines; with excellent porosity (28-47%). Gases in Oyong, Wunut and Kepodang fields mixed thermogenic (from Ngimbang Fm) and biogenic (from Plio- Pleistocene sequences. Paciran Fm claystone seal for Mundu reservoir, supporting gas column of >200m in nearby fields)

Arisandy, M., W. Darma, W. Nasifi, H. Haryanto, I.E. Amorita, W.N. Farida &, Y. Triyana (2017)- Future gas in East Java Basin? Control of paleo-terraces in reservoir facies distribution of Pliocene Mundu Member *Globigerina* Limestone. Proc. Joint HAGI-IAGI-IAFMI-IATMI Conv. (JCM 2017), Malang, 5p.
(Depositional model of Pliocene Globigerina grainstone reservoirs ('Mundu play'). Best reservoir quality on crests of highs/ terraces (28-47% porosity; maximum winnowing, less dilution with fine clastics))

Astjario, P. & L. Arifin (2007)- Struktur diapir bawah permukaan dasar laut di kawasan pesisir selatan Kabupaten Sampang- Pamekasan, Jawa Timur. J. Geologi Kelautan 5, 1, p. 25-36.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/132/122)
(Diapyric structures below the surface of the seabed in the southern coastal region of Sampang - Pamekasan Regency, East Java'. Shallow seismic profiles in N Madura Straits show Quaternary sediments undisturbed by folding/faulting, but Tertiary sediments off S coast of Pamekasan area tightly folded and with shale diapyrs)

Faturachman, A. & S. Marina (2007)- Jalur migrasi dan akumulasi gas biogenik berdasarkan profil seismik Pantul Dangkal dan korelasi Bor BH-2 di perairan Sumenep, Jawa Timur. J. Geologi Kelautan 5, 3, p. 143-157.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/142/132)
('Migration pathway and biogenic gas accumulation based on seismic profiles of shallow sandstones in Sumenep waters and correlation with BH-2 core hole, East Java'. SE Madura offshore . In BH-2 core ~30m of Holocene-Recent black clay rests on the Pleistocene Pamekasan Fm. Minor biogenic gas)

Faturachman, A., R. Rahardiawan & A.H. Sianipar (2004)- Kandungan gas biogenik dan termogenik gas sedimen dasar laut di perairan Selat Madura (pengaruhnya terhadap sifat fisik dan keteknikan). J. Geologi Kelautan 2, 2, p. 21-30.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/111/101)
('Biogenic and thermogenic gas content of marine sediments in Madura Straits waters (their effect on physical properties and engineering)')

Fitrianto , T., E.P. Putra, V. Rowi, Chen Ying Fu & Kian Han (2016)- *Globigerina* Limestone sedimentation mechanism in GLX structure Madura Strait area, an example of upwelling current and winnowing process. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 584-591.

(GLX structure in NW Madura Strait with 2 wells drilled. Reservoir rock Pliocene Mundu-Selorejo Globigerina Limestones. Two types of Globigerina Lst: (1) planktonic foram 'drifts', winnowed by bottom currents, and (2) planktonic foram 'turbidites'. Mundu sequence deep marine pelagic rock with <1% detrital clay, affected by bottom currents (upwelling?). Overlying Selorejo Fm with significant clay content, mainly reworked Mundu Fm)

Htwe, P., S.S. Surjono, D.H. Amijaya & K. Sasaki (2015)- Depositional model of Ngrayong Formation in Madura area, North East Java Basin, Indonesia. J. Southeast Asian Applied Geol. (UGM) 7, 2, p. 51-60.
(online at: https://journal.ugm.ac.id/jag/article/view/26947/16594)
(early M Miocene Ngrayong Fm in outcrop sectons in central anticlinal part of Madura Island. After deposition of Kujung Formation basin morphology developed nearly E-W trending shelf edge. Ngrayong Sst variety of coastal and shallow marine depositional environments)

Mansyur, M., L. G. Wooley & Nurhasan (2017)- Controlling factor in Pliocene carbonate reservoir quality as key to evaluate play chances: case study from Mundu carbonate from South Madura Strait- East Java Basin. AAPG Asia Pacific Region Technical Symposium, Bandung 2017, Search and Discovery Art. 11007, 7p.
(online at: www.searchanddiscovery.com/documents/2017/11007mansyur/ndx_mansyur.pdf and www.searchanddiscovery.com/documents/2017/11007mansyur/slides.pdf)
(Pliocene Mundu carbonate reservoir of E Java Basin (Madura Straits) consist of >85% planktonic and deep marine benthic foraminifera bioclasts. Contains 3.5 TCF gas. Average porosities >40% (up to 60%), permeability 100- >4000 mD. Sr isotope age 5.1- 5.8 Ma, older than suggested in previous publications. Reservoir quality controlled by marine sorting processes and diagenesis shutdown)

Mulyadi, E. (1992)- Le complexe de Bromo-Tengger (Est Java, Indonesie): etude structurale et volcanologique. Doct. Thesis Universite Blaise Pascal, Clermont Ferrand, p. 1-152. *(Unpublished)*
('The Bromo- Tengger complex (East Java): structural and volcanological study')

Nurhasan (2017)- Seismic DHI flat spot characteristic and statistic of the Pliocene *Globigerina* bioclastic limestones reservoir in Madura Strait area, East Java basin. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
(All anticlinal structures drilled in Madura Straits with bright seismic flat spot at level of Mundu Fm Globigerina Limestone reservoir are commercial gas discoveries)

Reksalegora, S.W., L.M. Hutasoit, A.H. Harsolumakso & A.M. Ramdhan (2017)- Stress determination in overpressure zone of East Java Basin. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-213-G, 12p.
(Stress information from wells in Madura Straits (E extension of Kendeng zone) suggest horizontal/ compressional stress is dominant and plays major role in generating overpressure. In S half of the study area fold and thrust stress regime, in N half likely strike slip stress regime).

Rutley, D.W. (2001)- Quantitative seismic reservoir characterisation: a model-based approach for the Sampang PSC, East Java, Indonesia. Exploration Geophysics 32, 4, p. 275-278.
(Modelling study of high amplitude seismic anomalies (gas prospects) in Madura Straits)

Surjaudaja, R., A.M. Ramdhan & I. Gunawan (2017)- Analisis mekanisme terjadinya tekanan-luap dan prediksi tekanan pori pada lapangan BD, Cekungan Jawa Timur. Bulletin of Geology (ITB) 1, 2, p. 85-93.
(online at: http://buletingeologi.com/index.php/buletin-geologi/issue/view/3/Paper-2)
('Analysis of mechanisms of overpressure and pore pressure prediction in the BD field, East Java basin'. Study of overpressure in Plio-Pleistocene deposits at BD field, Madura Straits. Main cause of overpressure is sediment loading, not smectite-illite transformation or hydrocarbon generation)

IV. BORNEO (KALIMANTAN & NORTH BORNEO) (308)

IV.1. Kalimantan/ Borneo General (51)

Abidin, H.Z. (2001)- Iron oxides associated with the ultramafic rocks, Mt.Kukusan area, South Kalimantan. Indonesian Mining J. 7, 2, p. 14-23.

Anggritya K.D. & B. Priadi (2016)- Basement characteristics of northern Barito Basin, Siung Malopot area, Central Kalimantan. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 301-309.
(Basement outcrops in Siung Malopot area in N part of Barito basin (277km NE of Palangkaraya) Cretaceous? low-metamorphic andesite and granodiorite. Also boulders of Early Tertiary limestone and presumably reworked latest Carboniferous - E Permian fusulinid foraminifera (Schwagerina))

Aryanto, N.C.D., E. Suparka, C.I Abdullah & H. Permana (2013)- Petrology and geochemie of Singkawang granitoid, West Kalimantan. Proc. 38th HAGI and 42nd IAGI Ann. Conv., Medan, JCM2013-010, 4p.
(Similar to Aryanto et al. (2013) paper above on Singkawang granite-granodiorite 145km N of Pontianak (no age info))

Badaruddin, D.F., D. Noeradi, M. Nurhidayat & M.S. Burhanuddin (2018)- Retroarc foreland basin in Melawi Basin, West Kalimantan, and implication to hydrocarbon migration pathway. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-273-G, 14p.
(M Eocene- Oligocene Melawi Basin in NW Kalimantan 300km long and 100km wide and formerly classifiied as intra-continental rift, sag basin and strike slip basin. Sedimentation thicker in N, as result of thrust fault-controlled sediment deposition. N of basin subduction and collision-related rocks include M Eocene Piyabung arc volcanics and Boyan and Lubok Antu melanges. Further N lies Sarawak Basin, classified as Eocene-Oligocene foreland basin. Oil seeps around Kedukul-1 well, gas shows in Kayan-1 and Kedukul-1 wells. Melawi basin is retroarc foreland basin, with hydrocarbon migration pathways from foredeep in N to forebulge area in S part of basin)

Badaruddin, D.F., Suyono, M. Nurhidayat, P. Asmoro & R.Y. Saragih (2018)- Post-mortem analysis of drilling failure of Kayan-1 and Kedukul-1 wells in Melawi Basin, West Kalimantan. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-189-G, 15p.
(Melawi Basin in NW Kalimantan with oil seeps at surface, but two wells (Kayan 1, Elf 1986 and Kedukul 1, CanadianOxy 1995) only gas shows. Both wells E Oligocene beds at surface. In Kayan-1 E Miocene Sintang intrusions intruded Eocene Ingar and Dangkan Fms; Kedukul-1 TD in Sintang Intrusion. Reservoir sandstones poor porosity (av. 8-10%). Oil maturation window at surface in E Melawi basin due to Miocene regional uplift)

Baharuddin (2011)- Petrologi dan geokimia batuan gunung api Tersier Jelai di daerah Malinau, Kalimantan Timur: implikasi tektoniknya. J. Sumber Daya Geologi 21, 4, p. 2013-211.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/147/143)
(same as Baharuddin 2011, above)

Choanji, T. & R. Indrajati (2016)- Analysis of structural geology based on sattellite image and geological mapping on Binuang area, Tapin Region, South Kalimantan. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 352-361.

Croockewit, J.H. (1852)- De diamantgronden van Koesan. Natuurkundig Tijdschrift Nederlandsch-Indie 3, 3, p. 316-321
('The diamond terranes of Kasan', SE Kalimantan. Report on natives' diamond digging for diamonds in alluvial deposits in Kusan area (E of Meratus Range?): Sungei Dana/ Sungei Bakarang. No maps or figures)

Ding, Q.F., F.Y. Sun & B.L. Li (2004)- Evolution of Cenozoic collision orogen of north Kalimantan and its metallogenesis. J. Jilin University (Earth Science) 34, 2, p. 193-200. *(in Chinese with English abstract)*

(North Kalimantan orogen formed by collision between Luconia continental block and N margin of Sundaland. Complicated history from interior orogen to peripheral orogen and to interior orogen again. Imbricate thrusting during late Oligocene- M Miocene interior orogen was most important epoch of regional metallogenesis in Kalimantan)

Erzagian, E., L.D. Setijadji & I.W. Warmada (2016)- Studi karakteristik dan petrogenesis batuan beku di daerah Singkawang dan sekitarnya, Provinsi Kalimantan Barat. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 421-432.
(online at: https://repository.ugm.ac.id/137902/1/MOB-03.pdf)
('Study of the characteristics and petrogenesis of Beku rocks in the regions of Singkawang and surroundings, W Kalimantan Province'. On NW Kalimantan volcanic and intrusive rocks: (1) Permo- Triassic calk- alkaline subduction- and collision-related series with intrusions of S-type granite (2) Cretaceous calk-alkali to high-K subduction and collision series with I- and S-type granites; (3) Eocene-Miocene calk-alkaline subduction series with I-type granitoids and (4) Pliocene tholeitic series formed in continental rift zones)

Fahruddin, S. Widyantoro, A.D. Nugraha & Afnimar (2017)- Search for mantle seismic discontinuities beneath northern Kalimantan, central Indonesia: a preliminary result of employing SS precursors. Int. J. Tomography Simulation 30, 1, p.
(Kalimantan located far from active subduction zones with few seismic stations. SS precursors show discontinuity at ~690 km depth and weaker discontinuity at ~290 km depth)

Geiger, M., D. Prasetyo & T. Leach (2002)- Porphyry copper-gold systems in Central Kalimantan. Annual Convention, Prospectors and Developers Association of Canada, Technical Paper, 8p.
(Exploration over past 15 years by Kalimantan Gold Corporation identified >30 copper and/or gold prospects. Porphyry copper-gold systems are viable exploration targets in central regions of Kalimantan)

Harahap, B.H. (1987)- The petrology of some young subvolcanic and volcanic rocks from West Kalimantan, Indonesia. M.Sc. Thesis, University of Tasmania, 234p.
(online at: https://eprints.utas.edu.au/19986/1/whole_HarahapBhaktiHamonangan1988_thesis.pdf)
(Petrography and chemistry of Tertiary volcanic rocks from C and W West Kalimantan (mainly subduction-related arc volcanics) and Quaternary basaltic andesites from Mt. Niut (intra-plate volcanism not related to subduction). K-Ar ages of intrusions near Sintang: in South 23.0-30.4 Ma, in North 16.4-17.9 Ma (similar to intrusives in nearby Sarawak))

Harrison, T. (1975)- Tektites as "date markers" in Borneo and elsewhere. Asian Perspectives 18, 1, p. 61-63.
(The only place in North Borneo with tektites is NW coastal region 20 miles from Brunei city, at base of Jerudong Beds, and K-Ar dated as 730,000 BP by Zahringer (1963). However, associated wood much younger, so tektites may be reworked)

Hennig, J., H.T. Breitfeld, R. Hall & A.M. Surya Nugraha (2017)- The Mesozoic tectono-magmatic evolution at the Paleo-Pacific subduction zone in West Borneo. Gondwana Research 48, p. 292-310.
(online at: http://searg.rhul.ac.uk/pubs/hennig_etal_2017%20Paleo-Pacific%20margin%20West%20Borneo.pdf)
(Metamorphic and magmatic rocks in NW part of Schwaner Mountains of W Kalimantan with mainly Cretaceous U-Pb zircon ages (~80-130 Ma). Triassic metatonalite near Pontianak with Triassic and Jurassic zircons formed at Paleo-Pacific margin of subduction under Indochina- E Malaya block. Geochemically similar Triassic rocks in Embuoi Complex to N and Jagoi Granodiorite in W Sarawak formed part of SE margin of Triassic Sundaland. One S-type granitoid (118.6 Ma) with inherited Carboniferous, Triassic and Jurassic zircons, indicating Sundaland basement. Two I-type granitoids with Cretaceous ages of 101.5 and 81.1 Ma. All three record Cretaceous magmatism at Paleo-Pacific subduction margin. Cretaceous zircons of metamorphic origin indicate recrystallisation at ~90 Ma, possibly related to collision of Argo block with Sundaland. Subduction ceased at that time, followed by post-collisional magmatism in Pueh (77.2 Ma) and Gading Intrusions (80 Ma) of W Sarawak (NB: West Borneo here viewed as part of Triassic Sundaland, extending to NW Schwaner zone and possibly further South; not SW Borneo block as previously assigned by Hall, etc.))

Hovig, P. (1930)- De oorsprong van de Borneo diamanten. Geologie en Mijnbouw 8, 12, p. 157-161.
(online at: https://drive.google.com/file/d/1IsA9sp2MEHaeqL_IHPOyMvlLVrkM08Tm/view)
('The origin of the Borneo diamonds'. Brief review, largely based on Krol (1922). Quaternary diamond placers probably formed through multiple stages, from primary deposits (here believed to be contact zones of acid intrusions) into Lower Cenomanian clastics, then reworked into progressively younger sediments. No figures)

Kamiludin, U. & Y. Darlan (2005)-Keterdapatan emas letakan dan ikutannya di perairan Delta Kapuas, Pontianak, Kalimantan Barat. J. Geologi Kelautan 2, 3, p. 1-8.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/viewFile/123/113)
('Presence of gold placers in the waters of the Kapuas Delta, Pontianak, West Kalimantan'. Presence of gold placers, associated with Ag, Cu, Pb, Zn and Sn in offshore sediments originating from Kapuas River. Primary source probably Sintang intrusives)

Kamiludin, U., Y. Darlan & H. Kurnio (2008)- Sebaran endapan kuarsa di perairan Delta Kapuas, Pontianak, Kalimantan Barat. J. Geologi Kelautan 6, 3, p. 135-145.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/157/147)
('Distribution of quartz deposits in the waters of the Kapuas Delta, Pontianak, West Kalimantan'. Study of recent sands of Kapuas delta with high % quartz)

Kamiludin, U., I Wayan Lurga & S. Hakim (2003)- Sedimen permukaan dan kandungan mineralnya di perairan Pontianak, Kalimantan Barat. J. Geologi Sumberdaya Mineral 13, 143, p. 57-66.
('Surface sediment and mineral content in the waters of Pontianak, West Kalimantan'. Recent sediments off Pontianak dominated by quartz (from Sukadana granite and Kempari Sst Fm?). Heavy minerals include magnetite, hematite, cassiterite, pyrite, etc.)

Muhammad, A.G. & B. Soetopo (2016)- Pemodelan dan estimasi sumber daya uranium di sektor Lembah Hitam, Kalan, Kalimantan Barat. Eksplorium 37, 1, p. 1-12.
(online at: http://jurnal.batan.go.id/index.php/eksplorium/article/view/2668/pdf)
('Uranium resources modeling and estimation in Lembah Hitam sector, Kalan, West Kalimantan'. Lembah Hitam Sector part of Schwaner Mts and Kalan Basin. Uranium mineralization in Permo-Triassic Pinoh Metamorphics metasiltstone and metapelites (intruded by Cretaceous Sepauk Tonalite/ Sukadana Granite))

Nagel, J.L. (1990)- CTA 39A. Exploration of the Long Laai Zn-Pb-Ag skarn mineralisation in the Tahling Basin, Kalimantan Timur (Indonesia). Bureau Rech. Geol. Minieres (BRGM) Report R-30433, DEX-DAM-90 p.. *(Unpublished)*

Panggabean, H. (2005)- The occurrence of methane gas seepages in the Upper Ketungau area, West Kalimantan. Indonesian Mining J. 8, 1, p. 1-8.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/205/122)
(Flammable methane gas seepages at Peturau River, N of Upper Ketungau River, Ketungau Basin, N of Semitau High (Boyan Melange), NW Kalimantan. Near outcrop of Sekalau coal seam and probably coalbed methane gas, leaking through NW-SE trending faults. Coals present in Eocene Kantu (Silantek) Fm and Miocene Late Oligocene-Miocene(?) Ketungau Fm (Sekalau and Malintang seams, 0.10- 0.95m thick, vitrinite Ro 0.66-0.70%). Kantu Fm coal vitrinite Ro 0.68-0.82%)

Posewitz, T. (1882)- Unsere geologische Kenntnisse von Borneo. Mitteilungen Jahrbuch Konigl. Ungarischen Geologischen Anstalt, Budapest, 6, p. 136-162.
('Our geological knowledge of Borneo')

Posewitz, T. (1883)- Das Goldvorkommen in Borneo. Mitteilungen Jahrbuch Konigl. Ungarischen Geologischen Anstalt, Budapest, 6, p. 176-190.

('Gold occurrences of Borneo'. Early report on distribution of gold in Kalimantan. Many of the alluvial and fluvial gold occurrences already mined by locals. Less common gold disseminated in metamorphic rocks, granites and quartz veins)

Posewitz, T. (1884)- Geologische Mitteilungen uber Borneo. 1. Das Kohlenvorkommen in Borneo. 2. Geologische Notizen aus Central-Borneo. Mitteilungen Jahrbuch Konigl. Ungarischen Geologischen Anstalt, Budapest, 6, p. 318-350.
('Geological notes from Borneo: 1. Coal occurrences in Borneo, 2. Geological notes from Central Borneo')

Pubellier, M. & D. Menier (2013)- The ups-and-downs of Borneo. In: 3rd Int. Conf. Palaeontology of South-East Asia (ICPSEA3), Malaysia, p. 42. *(Abstract only)*
(online at: www.senckenberg.de/files/content/forschung/projekte/igcp-596/igcp_596_malaysia_2013_abstrvol.pdf)

Purwanto, H.S. & H. Riswandi (2010)- Jenis deposit ñmassive sulphideò Pb-Zn di dearah Riam Kusik, Kecamatan Ketapang, propinsi Kalimantan Barat. J. Ilmiah Magister Teknik Geologi (UPN) 3, 2, 12p.
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/209)
('Type of "massive sulphide" Pb-Zn deposit in Riam Kusik, Ketapang District, West Kalimantan'. Massive sulphide mineralization with galena, chalcopyrite, sphalerite, etc., following E-W structural grain)

Robinson, G.P., A.Y.S. Wah, B.T. Setiabudi, D.N. Sunuhadi, J.M. Hammarstrom, S. Ludington, A.A. Bookstrom, S.A. Yenie & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7019, Central Kalimantan-Indonesia and Sabah and Sarawak, Malaysia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rep. 2010-5090-D, Appendix I, p. 149-163.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in C Kalimantan- N Borneo dispersed belt of late Oligocene- Pliocene intermediate intrusives and volcanics. Relation of these intrusive rocks to subduction unclear, and tectonic setting for porphyry copper deposits in this tract likely post-subduction. All porphyry copper prospects likely of Miocene-Pliocene age. Only one known porphyry copper deposit: Mamut (Sabah; 1966))

Sanyoto, P. & P.E. Pieters (1993)- Geological map of the Pontianak/Nangataman Sheet area, Kalimantan, 1314/1315, 1:250,000, Geol. Res. Dev. Centre (GRDC), Bandung.
(W Kalimantan map sheet with oldest rocks pre-Cretaceous Pinoh Metamorphics, Cretaceous granitoids and volcanics. In Kapuas River area in N overlain by E Oligocene clastics of Melawi Basin. Youngest rocks Oligo-Miocene Sintang Intrusives)

Sardjono (2000)- Evolusi kerak Lajur Meratus dan implikasi terhadap aspek mineralisasi. Majah Mineral & Energi (EDSM) 2, 2, p. 16-19.
('Crustal evolution of the Meratus Mts and implications of aspects of mineralization')

Scheele, E. (1908)- Uber Einige Erdoele aus Borneo. Dissertation, Universitat Basel, p. 1-64.
(online at: http://books.googleusercontent.com/books/...)
('On some oils from Borneo'. Old chemical analyses of 15 crude oil samples from Sanga Sanga and Louise fields, E Kalimantan))

Setiabudi, B.T. (2002)- Nested cannibalistic intrusions associated with the Kelian gold deposit, Indonesia: zircon U-Pb dating by Excimer laser ablation ICP-MS. Proc. 31st Ann. Conv. Indon. Assoc. Geol. (IAGI), Surabaya, 2, p. 894-911.
(Kelian and Magerang andesites 250km W of Samarinda, with short age range. Magmatism and mineralization within 0.5- 1.0 Myrs around 19.4 Ma (E Miocene). Produced two types of eithermal deposits. Detrital zircons in nearby rivers Tertiary populations of 1.7-2.8 Ma and 15.8-21.7 Ma; large Cretaceous peak at ~105 Ma))

Setiabudi, B.T. (2002)-Geochemistry of the igneous suite of the Kelian region, East Kalimantan, Indonesia: implications for the gensis of the Kelian deposit. Proc. 31st Ann. Conv. Indon. Assoc. Geol. (IAGI), Surabaya, 2, p. 912-933.
(E Miocene calk-alkaline arc volcanics of Kelian region two magmatic differentiation trends. Part of Central Kalimantan continental arc of andesitic- trachyandesitic rocks)

Setiawan, B. (1993)- Studi kasus 3 tubuh granitik terkontaminasi di daerah Longlaai, Kabupaten Berau, Kalimantan-Timur. Proc. 22nd Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 1, p. 258-270.
('Case study of three contaminated granitic bodies in the Longlaai area, Berau district, East-Kalimantan'. E Miocene Mamak, Gupak and Segah granitoids in NE Kalimantan with 'calcic' contamination)

Setyanta, B. (2016)- Konfigurasi geologi bawah permukaan cekungan sedimen daerah Longbia-Muarawahau, Kalimantan Timur, berdasarkan analisa gayaberat. J. Geologi Sumberdaya Mineral 17, 4, p. 217-229.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/15/13)
('Configuration of basement of geological sedimentary basin area of Longbia-Muarawahau, East Kalimantan, based on gravity analysis'. Bouguer anomalies in NE Kutai basin suggest basement composed of granitic and ophiolitic fragments)

Setyanta, B., I. Setiadi & W.H. Sinamora (2008)- Model geologi bawah permukaan daerah Muara Wahau hasil analisis anomali gaya berat berdasarkan estimasi kedalaman dengan metode analisis spektral. J. Sumber Daya Geologi 18, 6, p. 379-390.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/258/238)
('Subsurface geology model of the Muara Wahau area from gravity anomaly analysis and depth estimation with the spectral analysis method')

Setyanto, A. & M. Surachman (2017)- The occurences of heavy mineral placer at Kendawangan and its surrounding, West Kalimantan Province. Bull. Marine Geol. 32, 1, p. 33-40.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/319/288)
(Study of heavy mineral placers of Kendawangan coastal and adjacent offshore area, W Kalimantan. Cassiterite (0.3-15%) and zircon (1-26%) found at all locations and have potential to be further developed. High content of cassiterite (Sn) generally linked to sediment of Kendawangan River)

Shen, A.H., Tay Thye Sun, Ye Luo, J.T. van Gorsel, M. Rosana Fatimah, Tay Kunming & W. Deng (2017)- Kalimantan diamonds from Landak: gemmological characteristics, FTIR and photoluminescence spectroscopy. Proc. 35th Int. Gemmological Conf. (IGC) 2017, Windhoek, Namibia, p. 57-61.
(online at: www.igc-gemmology.org/)
(Diamonds found in 4 main areas of Kalimantan (Landak, Puruk Cahu, Martapura, Kelian), mainly in Quaternary alluvial deposits, some in Cretaceous and Eocene conglomerates. Landak diamond deposits along lower terrace of Landak river)

Shimazaki, Y. & K. Isono (1964)- Mineralogy of some laterite ores from Sebuku Island, Indonesia. Bull. Geol. Survey Japan 15, 8, p. 447-465.
(online at: https://www.gsj.jp/data/bull-gsj/15-08_01.pdf)
(Main minerals in laterite ores from Sebuku goethite, gibbsite, magnetite, chromite, spinel, hematite, quartz. No location data or geologic background info))

Soetarno, D. (1993)- Karakter dan umur kimia mineralisasi uranium di Remaja dan Tanah Merah, Kalan, Kalimantan. Proc. 22nd Ann. Conv. Indon. Assoc. Geologists (IAGI), Bandung, 2, p. 724-735.
('Character and chemical age of uranium mineralization in Remaja and Tanah Merah, Kalan, Kalimantan'. Uranium mineralization in Kalan area, N margin of Schwaner Mts, NW Kalimantan. In Remaja mainly uraninite and branerite; in Tanah Merah mainly uraninite and monazite. Chemical ages of Remaja 145-150 Ma (or 125-130 Ma); Tanah Merah 145-150 Ma (or 135-145 Ma))

Subagio & T. Patmawidjaja (2013)- Pola anomali Bouguer dan anomali magnet dan kaitannya dengan prospek sumber daya mineral dan energi di Pulau Laut, Pulau Sebuku dan Selat Sebuku, Kalimantan Selatan. J. Geologi Kelautan 11, 3, p. 115-129.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/236/226)
('Bouguer anomaly patterns and magnetic anomalies and their relation with mineral and energy prospects of Pulau Laut, Sebuku Island and Sebuku Strait, South Kalimantan'. Circular pattern of Bouguer gravity anomalies of 45-64 mGals reflect ultramafic rocks close to surface; exposed ultrabasic rocks indicated by high magnetic anomalies. Parallel Bouguer patterns reflect thrust and normal faults)

Sugiaman, F., L. Andria, A.Y. Arief, Nurcahyo W.H., Meizarwin, S. Mujiyanto, A. Budianto & F.A. Wisanggono (2016)- Devonian Expedition 1989, Telen River area, Muara Wahau District, Kutei region, East Kalimantan. Geology Student Association 'GEA', Institut Teknologi Bandung (ITB), p. 1-141.
(English edition of 1989 report on expedition to study Devonian limestone/fossils(oldest known rocks from W Indonesia), initially reported by Witkamp (1925) and Rutten (1940) in area of Telen River (tributary of Mahakam Delta). Oldest unit pre-Permian? dark schist. Overlain by ?Permian turbiditic metasandstones of Telen Unit, with black Devonian limestone boulders with Heliolites corals (up to 10's of m; debris flows?) and with common Permian fusulinid foraminifera (Neoschwagerinidae; similar to fusulinids from Danau Kapuas regions?; Krekeler 1932, 1933) in calcareous sandstone matrix. Sediments are thrusted toward East, but no evidence of 'melange'. Mesozoic and older metasediments unconformably overlain by Eocene quartz sandstones. With reverse faults and post-Eocene diorite intrusions.)

Surata, M. (2005)- Challenges to develop the Tayan lateritic bauxite- West Kalimantan. In: S. Prihatmoko et al. (eds.) Indonesian mineral and coal siscoveries, IAGI Spec. Issues 2005, p. 106-117.
(Bauxite deposits in Tayan, E of Pontianak, W Kalimantan, formed by lateritization of E Cretaceous gabbro (high-iron type) and Late Cretaceous diorite (high-silica type))

Suryono, N., S. Supriatna & D. Satria (1994)- Geologi rinci dan prospeksi mineral berharga di dearah Muara Luhung (Permata Intan), lembar Muara-Tewe, Kalimantan Tengah. Geol. Res. Dev. Centre (GRDC), Bandung, Bull. 17, p. 40-55.
('Detailed geology and economic mineral prospecting in Muara Luhung (Permata Intan) area, Muara-Tewe sheet, Central Kalimantan')

Swamidharma, Y.C.A. (2016)- Magmatic Fe-Ni-Cu sulphides occurence in Sebuku Island. Proc. 8th Ann. Conv. Indonesian Soc. Economic Geol. (MGEI), Bandung, p. 106-108.
(Fe-Ni-Cu sulphides, Co, Au and Platinum Group Elements minerals, associated with cumulus ultramafic zone of Late Triassic- E Cretaceous ophiolite complex in Sebuku Island)

Tobing, R.L. (2013)- Serpih Silat daerah Nanga Serawai, Kabupaten Sintang, Provinsi Kalimantan Barat dan potensinya sebagai serpih gas. Bul. Sumber Daya Geologi 8, 1, p. 1-6.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/659)
('Silat shale in the Nanga-Serawai area, Sintang District, and its shale gas potential'. Late Eocene Silat shale in Melawi Basin, C Kalimantan, deposited in lacustrine and delta environment. Organic material vitrinite (from plants) and liptinite (from plant fats or sea algae). TOC 0.54-1.15%, vitrinite reflectance 0.29-0.45%)

Ubaghs, J.G.H. (1937)- Geologie van het gebied begrensd door de S. Boengalon, S. Telen, S. Mahakam en Straat makassar. Geological Survey, Bandung, Open File report 24/CZ, p. 1-53.*(Unpublished)*

Utoyo, H. (2014)- Mineralization of the Busang prospect, East Kalimantan. Indonesian Mining J. 17, 1, p. 27-39.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/342)
(Busang prospect in Kalimantan Volcanic belt, ~150 km SW of Kelian mine. Hosted within volcanic rocks intruded by Oligo-Miocene Atan Diorite. Hydrothermal alteration with gold, minor chalcopyrite, lead, sphalerite, pyrite and marcasite. Low sulfidation epithermal type)

Van Leeuwen, T.M., G.D. Muggeridge & S. Putra (1988)- Discovery and exploration of the Pinang coal deposit, East Kalimantan, Indonesia. In: Proc. Conf. Mining prospects and challenges in Indonesia during the fifth development plan, Jakarta 1988, p. 1-20.
(Pinang Dome coal deposit in Kutai Basin, 90km N of Samarinda, 10km long in N-S direction and 2-6km wide. Six main seams 1-14m thick and 17 thin coal seams in 950m interval of Miocene fluvio-deltaic sequence. High-quality coal with rel. low moisture (4-12%), low ash (<3%), low sulfur (0.2-1.4%) and high rank (VR 0.51-0.67%; burial 2000-3000m). Also some lower quality Eocene coal in area of higher rank (VR 0.65-0.75%))

Van Schelle, C.J. (1885)- De geologisch-mijnbouwkundige opneming van een gedeelte van Borneo's Westkust. Verslag No. 9. Onderzoek naar goudaderen bij Melassan. Jaarboek Mijnwezen Nederlandsch Oost-Indie 14 (1885), Technisch Admin. Ged., p. 117-130.
(‘The geological-mining investigation of part of Borneo's West coast No. 9: Investigation of gold veins near Melassan'. Report on 1884 survey of area formerly mined for gold by Chinese kongsi's, now abandoned. Presence of quartz vein(s) in weathered 'old clay-shales' with pyrite and minor amounts of gold (0.0005%). Further exploitation deemed uneconomic)

Wahyudiono, J. (2017)- Karakteristik petrologi dan geokimia batuan gunungapi berumur Oligosen Akhir-Miosen di daerah Gunung Muro, Kalimantan Tengah. J. Geologi Sumberdaya Mineral 18, 2, p. 105-115.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/266/283)
('Petrology and geochemistry characteristics of the Late Oligocene - Miocene volcanic rocks in the Gunung Muro Region, C Kalimantan'. Mt Muro calc-alkaline magmatic (part of Sintang Arc volcanics))

IV.2. East Kalimantan Cenozoic Basins, (bio-)stratigraphy (114)

Alam, S. (2001)- Seismic sequence stratigraphy and depositional history of the Pliocene -Pleistocene fans in the Ganal Block, offshore Kutai Basin, Indonesia. Ph.D. Thesis Texas A&M University, College Station, p. 1-143.
(Seismic stratigraphy study of Pliocene- Pleistocene deep water clastics at Kutai Basin slope and basin floor of Makassar Straits. Six sequences identified, with lowstand features submarine canyons, channels and fan lobes)

Allen, G.P. & F. Mercier (1988)- Subsurface sedimentology of deltaic systems. Petroleum Expl. Soc. Australia (PESA) Journal 12, p. 30-44.
(Review of Mahakam Delta depositional system and depositional cycles)

Amar, R.A. & B. Sapiie (2018)- Fault-seal analysis in offshore gas fields of South Mahakam area, Kutai Basin, Indonesia. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-60-G, 21p.
(Fault seal analysis of fields in S Mahakam offshore, with Jempang-Metulang, Mandu and Stupa gas fields along N side of Sepinggan Fault (parallel to Adang FZ). Gas reservoirs in M Miocene Sepinggan deltaic sands. High shale content leads to shale smear and high seal capacity of all faults)

Anggayana, K. (1996) -Mikroskopische und organisch-geochemisch Untersuchungen an Kohlen aus Indonesien, ein Beitrag zur Genese und Fazies verschiedener Kohlenbecken. Dissertation, RWTH Aachen University, Germany, p. 1-225. *(Unpublished)*
('Microscopic and organic-geochemical investigations on coals from Indonesia, a contribution to the genesis and facies of various coal basins')

Anggayana, K., D.R. Kamarullah, A. Suryana & A.H. Widayat (2017)- Methane adsorption characteristics of coals from Sambaliung area, Berau, East Kalimantan and Sawahlunto area, West Sumatra, Indonesia. J. Geologi Sumberdaya Mineral 18, 4, p. 183-189.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/333/295)
(Coalbed methane CBM evaluation of two Indonesian coals, Sambaliung (Berau/Tarakan, NE Kalimantan, E-M Miocene Latih Fm) and Sawahlunto, (W Sumatra, Late Oligocene Lower Ombilin Fm). Gas storage capacity of Sambaliung 113-269 scf/ton; Sawahlunto coals 486-561 scf/ton. Adsorption capacity related to coal rank: low at Sambaliung area (vitrinite Rr ~0.38%) and higher at Sawahlunto (Rr ~0.72%))

Anggayana, K., B. Rahmad, H.H.A. Naftali & A.H. Widayat (2014)- Limnic condition in ombrotrophic peat type as the origin of Muara Wahau Coal, Kutei Basin, Indonesia. J. Geol. Soc. India 83, p. 555-562.
(Maceral petrography of E (M?) Miocene upper Muara Wahau Fm coal from three drill cores. Two main seams 8-40m thick. Huminite macerals 73- 88%. Liptinite 0.7-6.7%, inertinite 4.3-34%. Coal developed from herbaceous plants in ombrotrophic type of peat. Preservation low and peat relatively wet or limnic)

Anggritya, K.D. & D. Kurniadi (2017)- Palynofacies role in hydrocarbon exploration: a study case from Kutai Basin. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 8p.
(Palynofacies study of M-L Miocene in wells from Louise Field, Sanga-Sanga anticlinorium, Kutai Basin)

Apriyani, N., P. Hutajulu, R. Ramadian & R. Wisnu Y (2016)- Unlocking the CBM potential in Kutai Basin, East Kalimantan: case study on successful early exploration program in Sangatta II Block. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 201-215.
(Successful CBM exploration program in coals in Balikpapan Fm of Sangatta II block)

Arifullah, E., Y. Zaim, Aswan & Djuhaeni (2016)- Ichnofabric for stratigraphic analysis: an outcrop study in Samarinda area, Kutai Basin, Indonesia. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 565-572.

Arifullah, E., Y. Zaim, Aswan, Djuhaeni, D. Ariwibowo, Y. Eriawan & M. Ilham (2016)- The significance of ichnofabric analysis for sedimentological interpretation: an outcrop study at Palaran, Samarinda Area, Kutai

Basin, Indonesia. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 467-474.
(Trace fossils in Miocene deltaic Palaran Sst (Balikpapan Fm) in Samarinda area, Mahakam Delta onshore)

Asmoro, P., S. Bronto, M. Effendi, I. Christiana & A. Zaennudin (2016)- Gunung api purba Pulau Nunukan, Kabupaten Nunukan, Provinsi Kalimantan Utara. Pros. Seminar Nasional Aplikasi Sains & Teknologi (SNAST 2016), Yogyakarta, p. 70-84.
(online at: http://journal.akprind.ac.id/index.php/snast/article/view/756/483)
('Ancient volcano of Nunukan Island, Nunukan district, N Kalimantan'. Several andesite-basalt volcanoes on Mio-Pliocene deltaic clastic deposits of Nunukan Island)

Bachtiar, A., J. Wiyono, Liyanto, M. Syaiful, Y.S. Purnama, M. Rozalli, A. Krisyunianto & A.S. Purnama (2010)- The dynamics of Mahakam Delta- Indonesia, based on spatial and temporal variations of grab samples, cores, and salinity. AAPG Int. Conf. Exhibition 2010, 58p. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2010/50363bachtiar/ndx_bachtiar.pdf)

Bellet, J. (1987)- Le sondage Misedor- Palynofacies et analyse elementaire de la matiere organique. In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie)- le sondage Misedor, Editions TECHNIP, Paris, p. 183-195.
('The Misedor well: palynofacies and elemental analysis of organic matter'. Organic matter in Mahakam Delta sediments mainly of humic origin, from land plants. No evidence of marine organics. Kerogens mainly Type III)

Carbonel, P., C. Caratini & J. Gayet (1987)- Le sondage Misedor- Synthese des etudes geologiques. In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie)- le sondage Misedor, Editions TECHNIP, Paris, p. 173-181.
('The Misedor well- synthesis of geologic studies'. Misedor shallow cored well in Handil Field area of Mahakam Delta penetraded Quaternary (0-400m) and Late Pliocene clastic sediments (400- 638.6m). Four transgressive- regressive sequences in deltaic setting)

Christensen, A.N., C. Jones, L.B. Kocijan, H. Booth, S. Rouxel & B. Kunjan (2018)- Airborne gravity gradiometer survey over the Pelarang Anticline, onshore Kutai Basin, Indonesia. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, p. 1-6. *(Extended Abstract)*
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2018abT7_3B)
(Pelarang Anticline part of NNE-SSW-trending Samarinda Anticlinorium in detached fold-thrust belt of onshore Kutai basin. Detachment fold, ~30km long, with steeply dipping flanks. Airborne gravity shows anticline associated with strong positive gravity anomaly, possibly from ~2000m high, high-pressured shale core. Two commercial hydrocarbon accumulations, Sambutan and Mutiara)

Crumeyrolle, P. & I. Renaud (2003)- Quaternary incised valleys and low stand deltas imaged with 3D seismic and 2D HR Profiles, Mahakam Delta,Indonesia. AAPG Int. Conference, Barcelona 2003, Search and Discovery Art. 90017, 8p.
(online at: www.searchanddiscovery.com/abstracts/pdf/2003/intl/extend/ndx_82692.pdf)
(Review of Late Pleistocene- Holocene of Mahakam Delta , showing complete cycle of lowstand (incised valleys and prograding lowstand delta)- transgressive (up to 40m thick Halimeda carbonate buildups on interfluves of incised valleys on shelf)- highstand sequence tracts (prograding clastics of modern delta))

Crumeyrolle, P. (2003)- Two contrasting styles of Lowstand Deltaic wedges: the Roda Sandstone (Spain) as seen from outcrops and the Late Pleistocene Mahakam Delta (Indonesia) as imaged from 3D and 2D Hr Seismic profiles. In: H.H. Roberts et al. (eds.) Shelf margin deltas and linked down slope petroleum systems- Global significance and future exploration potential, 23rd Ann. Gulf Coast SEPM Found. Perkins Conf., Houston, p. 639-645.
(During period of continuous sea level fall Mahakan Delta distributary channels converted into incised valleys with adjacent dendritic tributary channels. Main incised valleys reached shelf break, transporting sediments beyond shelf break. During sea levelrise incised valleys flood and remain largely underfilled)

Darlan, Y. & Sahudin (2012)- Gas biogenik dan unsur mineral pada sedimen delta Kapuas, Kalimantan Barat. J. Geologi Kelautan 10, 3, p. 133-146
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/222/212)
('Biogenic gas and mineral elements in Kapuas delta sediments, West Kalimantan'. Bacterial-origin biogenic gas in Quaternary clastic sediments of shallow boreholes in Kapuas Delta)

Darman, H. (1999)- The Neogene ectonics and sedimentation of the Tarakan basin. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 56-59.
(Tarakan Basin initiated simultaneously with formation of Celebes Sea in M-L Eocene until end of E Miocene. Deltaic sedimentation from W in M Miocene- Pliocene, with significant growth faulting. Latest tectonic phase latest Pliocene- Recent transform movement along 3 major (Semporna, Maratua, N Mangkalihat) and several smaller sinistral wrench faults crossing Makassar Straits, causing up to 1000m of local inversion uplift)

Darman, H. (2017)- The Paleogene of East Borneo and its facies distribution. Berita Sedimentologi (Indon. Sediment. Forum, FOSI- IAGI) 37, p. 5-13.
(online at: www.iagi.or.id/fosi/files/2017/03/BS37-03032017.pdf)
(Review of East Kalimantan Barito, Kutei and Tarakan basins, all with M Eocene - U Oligocene Paleogene sediments. M Eocene dominated by fluvial settings, U Eocene common coastal to shallow shelf deposits. Carbonates developed in Oligocene in N and S; in Kutei Basin mainly shelf to bathyal clastics)

Edwards, T. & R. Walia (2002)- Reinterpretation of the Sembakung oilfield, Kalimantan, Indonesia utilizing modern 3D seismic data. In: Canadian Soc. Expl. Geophysicists (CSEG) 2002 Geophysics Conv., 6p. *(Extended Abstract). (online at: https://cseg.ca/assets/files/resources/abstracts/2002/Walia_R_Reinterpretation_of_the_Sembakung_CAS-1.pdf)*
(Sembakung field 1975 ARCO discovery onshore Tarakan (Tidung) basin, 80km N of Tarakan island, NE Kalimantan. 19 wells drilled until recent redevelopment. Producing since 1977 from stacked Miocene- Pliocene deltaic sands of Tabul Fm, in structurally controlled traps)

Emata, W.M., C. Irawan, Y.R. Sinulingga, B. Irawan & Cue Kalimantan (2016)- Challenge and hydrocarbon potential of SN structure on Kutai Basin of East Kalimantan. In: Soc. Petroleum Eng. (SPE) Ann. Caspian Techn. Conf., Astana, SPE-182539-MS, p. 1-11.

Ferguson, A.J. (2016)- Kutai Basin exploration: past and future, an example of the use of simpe play types and serendipity for successful exploration and develoment. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 32-TS-16, p. 1-17.
(Kutai Basin mature basin, with high success rates drilling on surface anticlines, many of which are inversions of growth faults in delta systems. Two main remaining play types are stratigraphic traps along flanks of structural highs (e.g. Tunu) and drilling for isolated pressure compartments in overpressure zone)

Fernandes, H. & Djuhaeni (2018)- Analisis stratigrafi sikuen interval Pliosen pada lapangan Bunyu Tapa, Kalimantan Utara. Bulletin of Geology (ITB) 2, 1, p. 175-196.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/4/Paper-4%20vol.%202%20no.%201)
('Sequence stratigraphy analysis of the Pliocene interval at Bunyu Tapa field, North Kalimantan'. Pliocene Tarakan Fm in Bunyu Tapa oil field in N Kalimantan can be subdivided in 5 delta plain-dominated sequences)

Fitriadi, Z., D. Nugroho & N.I. Basuki (2017)- Studi tipe batuan dan pemodelannya di Blok X, Cekungan Barito. Bulletin of Geology (ITB) 1, 1, p. 65-76.
(online at: http://buletingeologi.com/index.php/buletin-geologi/issue/view/2/09_BG201621)
('Study of rock types and modeling in Block X, Barito Basin'. Interpretation of fluvial depositional facies of (Eocene) Lower Tanjung Fm in wells of Tanjung Field, Barito Basin, SE Kalimantan. Highest porosity-permeability in channel and point bar sands)

Garrigues, P., J. Bellocq, P. Albrecht, A. Saliot & M. Ewald (1987)- Etude des marqueurs biogeochimiques tri-, tetra-, et pentaaromatiques dans les sediments quaternaires et Pliocene superieur du delta de la Mahakam (Indonesie). In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie)- le sondage Misedor, Editions TECHNIP, Paris, p. 317-342.
('Study of tri-, tetra-, et pentaaromatic biogeochemical markers in Quaternary and Upper Pliocene sediments of the Mahakam Delta'. High levels of aromatic derivatives of higher plant constituents. No clear diagenetic evolution)

Gayet, J. & P. Legigan (1987)- Etude sedimentologique du sondage Misedor (delta de la Mahakam, Kalimantan, Indonesie). In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie)- le sondage Misedor, Editions TECHNIP, Paris, p. p. 23-71.
('Sedimentological study of the Misedor well (Mahakam delta)')

Hamdani, A.H., E. Sunardi & Y.A. Sanjaya (2014)- The Coalbed Methane potential from Sajau coal in eastern part of Berau Basin, East Kalimantan. Int. J. Science and Research (IJSR) 3, 3, p. 104-107.
(online at: https://www.ijsr.net/archive/v3i3/MDIwMTMxMDc5.pdf)
(Pliocene coal seams of Sajau Fm in Berau basin, lignite- subbituminous grade and categorized as high gaseous seams. with good CBM development potential)

Harun, M.R., R.T. Putra & B.N. Ardhiansyah (2017)- Analog play concept and geophysical study at Warukin field, unlocking hidden potential in mature field. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 4p.
(Warukin Field in Barito basin small oil field SE of Tanjung field, producing from M-L Miocene M Warukin Fm since 1965. Remaining potential in deeper zone, and in prospects between existing fields)

Heo, W., W. Lee and D.S. Lee (2015)- Hydraulic fracturing design for coalbed methane in Barito Basin, Indonesia. Geosystem Engineering 18, 3, p. 151-162.

Herdiyanto, R., J.A. Siadary & D. Fadlan (2018)- Complexity of pore pressure and stress analysis in Mahakam median axis of the lower Kutai Basin, Kalimantan, Indonesia. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-144-G, 14p.

Hoibian, T. (1984)- La microfaune benthique traceur de l'evolution d'un systeme deltaique sous le climat equatorial: le delta de la Mahakam (Kalimantan). Thesis 3e Cycle, Universite de Bordeaux I, p. 1-219.
('Benthic microfaunal markers in the evolution of an equatorial delta system: the Mahakam Delta (Kalimantan)'. Study of Recent foraminifera and ostracodes in Mahakam Delta (see also Carbonel et al. 1986))

Husein, S. (2017)- Lithostratigraphy of Tabul Formation and onshore geology of Nunukan Island, North Kalimantan. J. Applied Geology (UGM) 2, 1, p. 25-35.
(online at: https://jurnal.ugm.ac.id/jag/article/view/30255/18265)
(Nunukan Island, in Tidung sub-basin N of Tarakan, built mainly by Late Miocene Tabul Fm clastics, deposited in transitional environment. Apparent coarsening upward sequence (but biostrat suggesting inverted section?; JTvG). E coast Pliocene Tarakan Fm fluvio-deltaic conglomerates unconformable over Tabul Fm clastics, suggesting Pliocene and younger deformation/ uplift of paleo-Simengaris Delta (sinistral movement of NW-SE Semporna Fault?), contemporaneous with common basaltic volcanism over NE Borneo, including basaltic intrusions in N Nunukan)

Idris, R. & T.S. Priantono (1994)- Perkembangan submarine fan Eosen- Oligosen pada daerah Benderang-Tapian Langsat, Cekungan Kutai, Kalimantan Timur. Proc. 23rd Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 1, p. 208-218.
('Development of Eocene- Oligocene submarine fans in the Benderang-Tapian Langsat area, Kutai Basin, East Kalimantan'. In Bungalun area of NE part of Kutai Basin Eocene-Oligocene Beriun Fm in bathyal marine facies with submarine fan sandstones)

Imanhardjo, D.N. & T.W. Kunto (1993)- Pemetaan parasekuen-set: suatu cara penyesuaian resolusi model geologi guna interpretasi seismik stratigrafi sedimen deltaik. Proc. 22nd Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 2, p. 1130-1140.
('Mapping of parasequence sets: a way of adjusting the resolution of geological models using seismic stratigraphy interpretation of deltaic sediments'. With examples and facies maps of Sangatta field, E Kalimantan)

Kiel, S., S. Reich, W. Renema, J.D. Taylor, F.P. Wesseling & J.A. Todd (2016)- A Late Miocene methane-seep fauna from Kalimantan, Indonesia. Proc. 1st Int. Workshop Ancient hydrocarbon seep and cognate communities, Warsaw 2016, 1p. *(Abstract only)*
(online at: http://seep.paleo.pan.pl/AHS_5.html)
(Late Miocene methane-seep deposit and associated fauna in Kutai Basin. Dominated by large, globular lucinid bivalve Meganodontia sp. nov. (up to 12.4 cm), and elongate bathymodiolin mussel, Gigantidas sp. nov.(up to 8.7 cm long). Also common small lucinid Cardiolucina aff. quadrata and Isorropodon sp., rare lucinid Lucinoma sp. and gastropods Bathybembix, Naticarius, Profundinassa, etc. Probably upper bathyal environment (400-500m). Close affinities to Recent tropical W Pacific seep faunas)

Kristyarin, D.A., A.T. Rahardjo & Bambang P. (2016)- Paleoecology and paleoclimate of Tanjung Formation deposition, based on palynological data from Siung Malopot, Central Borneo. In: Proc. Int. Symposium on Geophysical Issues, Padjadjaran University, Bandung 2015, IOP Conf. Series, Earth Environm. Science 29, 012022, p. 1-10.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/29/1/012022/pdf)
(Outcrops in Siung Malopot area in N part of Barito basin (277km NE of Palangkaraya) show Late Cretaceous basement of Pitap Fm andesites and granites, unconformably overlain by M-L Eocene Tanjung Fm clastics with intercalations of coal and thin limestones. Palynomorphs Proxapertites cursus, Meyeripollis naharkotensis, Cicatricosisporites eocenicus, C. dorogensis and Palmaepollenites kutchensis indicate Late Eocene Proxapertites operculatus zone. Increasingly more humid climate with age. Depositional environment mainly back-mangrove (abundant Acrosticum auerum), with increasing marine influx in upper parts of Tanjung Fm)

Kusnida, D. & L. Arifin (2008)- Karakteristik akustik dan fenomena geologi endapan sedimen Kuarter Delta Mahakam- Kalimantan Timur. J. Geologi Kelautan 6, 3, p. 167-173.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/160/150)
('Acoustic characteristics and geological phenomena of Quaternary sedimentary deposits of the Mahakam Delta -East Kalimantan'. Mahakam delta offshore shallow seismic profiles indicate at least four acoustic intervals (depositional sequences), separated by unconformities)

Lambiase, J.J., R.S. Riadi, N. Nirsal & Salahuddin Husein (2014)-The Mahakam Delta, Indonesia: a case study for the deposition and preservation of transgressive deltaic successions. Int. Petroleum Techn. Conf., Kuala Lumpur, IPTC-17867-MS, 4p.

Lambiase, J.J., R.S. Riadi, N. Nirsal & Salahuddin Husein (2017)- Transgressive successions of the Mahakam Delta Province, Indonesia. In: G.J. Hampson et al. (eds.) Sedimentology of paralic reservoirs: recent advances, Geol. Soc., London, Spec. Publ. 444, p. 335-348.
(Significant portion of Paleo-Mahakam Delta succession deposited during transgressive phases, either from extensive major transgressions or short-lived transgressions within maintly progradational phases. Sandstone facies with significant reservoir potential in transgressive successions: (1) backfilled distributary sandstones (coastline-perpendicular 10-20 m thick sand bodies, fining-upward channel sands, becoming more marine upwards; (2) shoreline-parallel, transgressive shoreline sandstones)

Latouche, C. & N. Maillet (1987)- Etude des corteges argileux dans les formations deltaiques de la Mahakam (Kalimantan, Indonesie), Essais d'interpretation paleogeographique et paleoclimatique. In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie)- le sondage Misedor, Editions TECHNIP, Paris, p. 73-84.

('Study of clay assemblages in deltaic deposits of the Mahakam delta (Kalimantan), attempts of paleogeographic and paleoclimatic interpretation'. Clay minerals in Misedor well 3 assemblages: (1) base to 400m (Late Pliocene): kaolinite dominant; (2) 365-189m (E Pleistocene): smectite dominant; and (3) 189-37m: kaolinite dominant. Smectite presumably derived from erosion of lowlands, during rel. dry period of sealevel lowstand)

Laya, K.P., A. Subekti, S. Goesmiyarso & J. Warren (2017)- From isolation to inclusion: the application of isotope analysis to unravel the influences of depositional style and diagenesis in Berai carbonates, Central Kalimantan. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-362-G, 13p.
(Gas well W Kerendan-1 (2013) core and log analysis shows Oligocene carbonate reservoir of interlayered reservoir-quality grainstone and wacke-packstone units. Persistent presence of clastic materials suggest land-attached setting. Diagenetic events generated secondary porosity during intermediate-deep burial and uplift)

Leupold, W. (1927?)- Geological description of Northeastern Borneo: landscapes of Bulungan and Berau. ~600p.
(Unpublished, pioneering report on geological survey and micropaleontology of large parts of NE Kalimantan. Copy of typescript reportedly in archive of Netherlands Centrum for Biodiversiteit (Naturalis), Leiden, as 'Verslag Boeloengan-Beraoe, Arch. 55 30031 (larger foraminifera from Leupold NE Kalimantan collection described in several papers by Van der Vlerk (1925, 1929))

Lubis, M.I. & S. Djaelani (2016)- Petroleum systems in the southern margin of the Kutei Basin. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 24-TS-16, p. 1-12.
(South Sesulu Block at S margin of offshore Kutai Basin, with structural traps formed during end-Early Miocene inversion along left-lateral faults of Adang flexure zone. SIS-A1 well (2015) penetrated good quality M-L Miocene deltaic and upper slope sandstones and tested dry gas from Late Miocene sandstone. Late Oligocene-Miocene coals and shales in S Sesulu area good source rock potential)

Marshall, N. (2016)- Improving the age control of Eastern Borneoôs Miocene sedimentary record. Ph.D. Thesis University of Utrecht, Utrecht Studies in Earth Sciences 109, p. 1-214.
(online at: https://dspace.library.uu.nl/bitstream/1874/334448/1/Marshall.pdf)
(Collection of studies on Miocene of E Kalimantan (paleoenvironmental reconstruction, magnetostratigraphy, strontium isotope stratigraphy, cyclostratigraphy and paleomagnetic rotations). Mahakam Delta cyclic sediment alternations match Earth's orbital oscillations (20, 40 and 100 kyr cyclicity in M Miocene, 15-11Ma). Paleomag work on Eocene- Miocene sediments indicates Borneo island probably did not rotate drastically since at least ~40 Ma, Late Eocene, but data from Cretaceous basalts do suggest ~40° CCW rotation)

Marshall, N., C. Zeeden, F. Hilgen & W. Krijgsman (2017)- Milankovitch cycles in an equatorial delta from the Miocene of Borneo. Earth Planetary Sci. Letters 472, p. 229-240.
(Paleo-Mahakam delta of E Kalimantan, Borneo developed during globally warm M Miocene in equatorial setting. Statistical analysis of sandstone/shale alternations show distinct pattern of cycles with thicknesses of ~90, ~30, and ~17m, translating into periods of ~100, 40, and 20 kyr, matching orbital eccentricity, obliquity and precession cycles. Proximal paleo-Mahakam sedimentation dominantly controlled by allogenic orbital forcing, probably as consequence of glacioeustasy (also in Marshall 2016 thesis))

Maryanto, S. (2009)- Diagenesis dan batuan sumber batupasir Formasi Lati di Daerah Berau, Kalimantan Timur, berdasarkan data petrografi. Bull. Scientific Contr. (UNPAD) 7, 2, p. 109-126.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8237/3785)
('Diagenesis and source of sandstone of the Lati formation in the Berau Region, East Kalimantan, based on petrographic data'. MMiocene Lati Fm sandstones of NE Kalimantan classified as litharenites and wackes. Provenance mainly from granitic rocks, with transport to SE (see also Maryanto 2013))

Maryanto, S. (2016)- Sedimentologi batugamping Formasi Berai gunung talikur dan sekitarnya kabupaten Tapin, Kalimantan Selatan, berdasarkan data petrografi. J. Geologi Sumberdaya Mineral 17, 2, p. 85-98.

(online at: http://kiosk.geology.esdm.go.id/artikel/pdf/sedimentologi...)
('Limestone sedimentology of the Berai Formation at the Talikur Mountain and its surrounding area, Tapin Regency, South Kalimantan based on petrographic data'. Late Oligocene- E Miocene Berai Fm in NW foothills of Meratus Range ~75m thick with several reefal environments in overall transgressive situation (with pictures of Borelis pygmaeus, Heterostegina borneensis)

Maulin, H.B., U.A. Saefullah, A. Wicaksono, A. Direzza, M. Purnama & I. Setiawan (2017)- Neogene unconformity surfaces as evidence to tectonic re-activation- case study in Tarakan sub-basin. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI, Balikpapan, JCB2015-390, 5p.
(Tarakan basin overall E-ward prograding delta system complicated by (1) sourcing by multiple feeder rivers (proto-Sesayap, Sesanip and others) and (2) angular unconformities within delta deposits caused by several tectonic cycles. Late Oligocene uplift of Kucing High, Late Miocene uplift E of Kucing High (Simenggaris area, etc.; creating angular unconformity between Santul and Tarakan Fms), and Pleistocene renewed uplift in same area and folding of present day Bunyu, Tarakan and Ahus structures)

Napitupulu, H. & I.B. Sosrowidjojo (2002)- The Warukin Formation: an alternative source rock in the Barito Basin. Proc. 31st Ann. Conv. Indon. Assoc. Geol. (IAGI), Surabaya, 1, p. 138-155.
(M Miocene coal-bearing Warukin Fm good-excellent hydrocarbon source rocks. Vitrinite reflectance in wells 0.3-0.68% (slightly suppressed?) ,suggesting lower part of formation could be fully mature in 2 depocenters. Onset oil generation in Bangkau depocenter at ~4 Ma (top oil window 2250m), in Tapian Deep at ~6 Ma (top oil window ~2900m. Modelling suggests oil expulsion of ~2000 MMBO in last few Myrs)

Novita, D. & K.D. Kusumah (2016)- Karakteristik dan lingkungan pengendapan batubara Formasi Warukin di Desa Kalumpang, Binuang, Kalimantan Selatan. J. Geologi Sumberdaya Mineral 17, 3, p. 139-152.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/12/5)
('Characteristics and depositional environment of the Warukin coal formation in Kalumpang village, Binuang, South Kalimantan'. Warukin Fm coal near Kulumpung deposited in upper delta plain and floodplain environments. Vitrinite reflectance (Vr) 0.29- 0.49% (lignite- subbituminous = immature- earliest mature))

Nugroho, B., E. Guritno, H. Mustapha, W. Darmawan, A. Subekti & C. Davis (2016)- Post rift Oligocene marine source rock, a new petroleum system in Greater Bangkanai, Upper Kutai, Indonesia. In: Int. Petroleum Technology Conf. (IPTC), Bangkok, IPTC-18922-MS, 15p.
(Kerendan Gas Field in Bangkanai PSC, onshore Kutai Basin, is Oligocene carbonate gas producer. Gas previously postulated to be generated from Eocene terrestrial source rocks, but recent C isotope data suggest gas generation from marine source rock, not terrestrial in origin)

Nursanto, E., A. Idrus, H. Amijaya & S. Pramumijoyo (2013)- Characteristics and liquefaction of coal from Warukin Formation, Tabalong area, South Kalimantan, Indonesia. J. Southeast Asian Applied Geol. (UGM) 5, 2, p. 99-104.
(online at: https://journal.ugm.ac.id/jag/article/view/7211)

Panggabean, H. & R. Heryanto (2014)- Karakteristik mikroskopis dan fasies batubara di daerah Kualakurun dan sekitarnya, Kalimantan Tengah. Majalah Geologi Indonesia (IAGI) 29, 3, p. 127-141.
('The microscopic characteristics and coal facies in Kualakurun and surrounding area'. Eocene Tanjung Fm coals at Kahayan River area, W side of Barito Basin, C Kalimantan. Coal bed 0.3-3.0m thick, deposited in delta plain environment. Vitinite 80-92%, liptinite 0.4-5.0%, inertinite 0-10%. Vitrinite reflectance (Rv) 0.48-0.62% (= immature- early mature; = >2km of overburden removed?; JTvG))

Pratama, D.A.P. & D.H. Amijaya (2015)- Lingkungan pengendapan batubara Formasi Warukin berdasarkan analisis petrografi organik di daerah Paringin, Cekungan Barito, Kalimantan Selatan. Proc. 8th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 582-593.
(online at: https://repository.ugm.ac.id/135493/1/GEO95%20LINGKUNGAN%20PENGEND etc.

('Depositional environment of Warukin Formation coal based on organic petrographic analysis in the Paringin area, Barito Basin, S Kalimantan'. Macerals in Miocene Warukin coals suggest deposition in telmatic environment in transition between lower and upper delta plain environment, as paleomire in wet forest swamp)

Pretkovic, V., J.C. Braga, V. Novak, A. Rosler & W. Renema (2016)- Microbial domes and megaoncoids in Miocene reefs in the Mahakam Delta in East Kalimantan, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 449, 1, p. 236-245.
(Coral patch reefs in Miocene Mahakam delta in E Kalimantan developed in shallow marine turbid waters, in delta front- prodelta environment. Langhian patch reefs in limestone quarries of Air Putih area near Samarinda with two types of microbial carbonates: low-relief domes and large nodules ('megaoncoids') around nuclei of coral fragments. Slope of patch reef flank favored falling and rolling of encrusted corals, with continued growth of microbial crusts on all sides of nodules. Both types near base of reef slope)

Putra, P.R., Tasiyat, B. Sapiie & A.M. Ramdhan (2017)- Pore-pressure prediction and its relationship to structural style in offshore Tarakan Basin, Northeast Kalimantan. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-523-G, 14p.
(Two main structural styles in offshore Tarakan sub-basin: (1) proximal-shelf deformation dominated by normal-growth faults and (2) distal-slope deformation dominated by toe-thrusts, both result of gravitational sliding on upper E Miocene shale detachment surface. Top overpressure created by fluid expulsion predicted at depth of 2000-3500m TVDss in M-L Miocene shale. Decrease of overpressure in distal direction)

Raguwanti, R., A. Naskawan, D. Tangkalalo & T. Kurniawan (2007)- Innovation technology using acoustic impedance modeling for reservoir characterization at Tanjung oil field, Barito Basin, Southeast Kalimantan, Indonesia. Proc. Joint Conv. 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 494-503.
(Modeling of six producing sandstone layers and dolerite sill in E-M Eocene Lower Tanjung Fm reservoir interval in Tanjung Field)

Ramdhan, A.M. & N.R. Goulty (2018)- Two-step wireline log analysis of overpressure in the Bekapai Field, Lower Kutai Basin, Indonesia. Petroleum Geoscience 24, 2, p. 208-217.
(online at: http://pg.geoscienceworld.org/content/petgeo/early/2017/08/17/petgeo2017-045.full.pdf)
(Interpretation of overpressure from sonic and density wireline logs in oil-gas field off Mahakam Delta)

Reza, M., I.P. Pratama & A.Y. Pratama (2016)- A new insight to define a chronostratigraphy with sequence stratigraphy and cyclostratigraphy- INPEFA log integrated approach: Miocene Mahakam outcrop study case. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 130-133.
(Example of cyclostratigraphy interpretation of outcrops of Miocene near Samarinda area, E Kalimantan)

Riadi, R.S. (2013)- Depositional environments and stratigraphic development of the Grand Taman Sari circuit outcrop: an analogue for transgressive Mahakam Delta successions. Bull. Earth Sci. Thailand (BEST) 6, 2, p. 115-121
(online at: www.geo.sc.chula.ac.th/BEST/volume6/number2/BEST-13Ridha%20Santika%20Riadi-Vol6No2-pp115-121.pdf)

Riadi, R.S. & J. Lambiase (2015)- Outcrop analogues for subsurface sand body geometries in regressive and transgressive Mahakam Delta successions. Proc. 39th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA15-G-100, 14p.

Santodomingo Aguilar, N. (2014)- Miocene reef-coral diversity of Indonesia: unlocking the murky origins of the Coral Triangle. Ph.D. Thesis University of Utrecht, Utrecht Studies in Earth Sciences 63, p. 1-340.
(online at: https://dspace.library.uu.nl/handle/1874/300545)
(Study of Miocene corals from patch reefs in E Kalimantan; collection of manuscripts. Incl. revision of fossil record of Acropora (31 species) and Isopora in Indo-Pacific. Platy coral assemblages common up to M Miocene (Serravallian), branching coral assemblages become dominant in Late Miocene (Tortonian) and first occurrence of entirely massive coral assemblage (similar to modern) in Messinian)

Santodomingo, N., W. Renema & K.G. Johnson (2016)- Understanding the murky history of the Coral Triangle: Miocene corals and reef habitats in East Kalimantan (Indonesia). Coral Reefs 35, 3, p. 765-
(Corals from E Kalimantan outcrops contain 79 genera and 234 species. Three different coral assemblages in small patch reefs, developed under influence of high siliciclastic input from Mahakam Delta. Platy coral assemblages(Porites, Leptoseris, etc.) common until Serravallian, branching corals became dominant in Tortonian. By Late Tortonian massive coral assemblages dominated, similar to modern-style coral framework)

Santodomingo, N., C.C. Wallace & K.G. Johnson (2015)- Fossils reveal a high diversity of the staghorn coral genera *Acropora* and *Isopora* (Scleractinia: Acroporidae) in the Neogene of Indonesia. Zoological J. Linnean Society 175, 4, p. 677-763.
(online at: https://academic.oup.com/zoolinnean/article/175/4/677/2449809)
(Extensive collections of Miocene corals from E Kalimantan, Indonesia, with 31 species of Acropora and 2 of Isopora, in E Miocene (max. age 18-20 Ma). 12 extant species already present in E Miocene. Most corals associated with shallow turbid habitats)

Santoso, B. (2009)- Geologic factors controlling mineral content in selected Tertiary coals- southern Kalimantan. Indonesian Mining J. 12, 2, p. 67-74.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/565/427)
(In Asem-Asem basin average mineral content of Miocene coals (3.9%) lower than Eocene coals (6.7%). Miocene coals bright lithotypes/ vitrinite-rich coal with fewer clay partings; Eocene coals dull lithotypes/vitrinite-poor)

Santoso, B. (2011)- Geologic aspects controlling maceral and mineral matter content of Satui coals- South Kalimantan. Indonesian Mining J. 14, 2, p. 63-73.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/494/358)
(Coals in Asem-Asem Basin, SE Kalimantan, in Eocene Tanjung and M Miocene Warukin Fms. Eocene(?) coals from Satui area dominated by bright-banded and banded types. Vitrinite and liptinite dominant macerals, minor inertinite Mineral content relatively high. Brighter coal more vitrinite-rich. Vitrinite reflectance 0.48-0.54%)

Santoso, B. (2011)- Organic petrology of selected coal samples of Eocene Kuaro Formation from Pasir- East Kalimantan. Indonesian Mining J. 14, 3, p. 146-153.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/485/349)
(Coals from Eocene Kuaro Fm in Pasir area in s-most Kutai Basin. Maceral composition similar to most SE Kalimantancoals. Presence of common pyrite and calcite reflects marine incursion. Vitrinite reflectance (Rvmax%) 0.53-0.71% (subbituminous A- high volatile bituminous C))

Santoso, B. & B. Daulay (2004)- Organic petrology of selected Tertiary Kalimantan coals. Proc. 33rd Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, p. 104-114.
(E and S Kalimantan Eocene and Miocene coals dominated by vitrinite, common exinite and rare inertinite. Paleogene coals sub-bituminous to high volatile bituminous rank (Rv max. 0.53-0.67%), Miocene coals brown to sub-bituminous rank (Rv max 0.30-0.57%)

Santoso, B. & N.S. Ningrum (2010)- Characteristics of selected Mangkalihat coals according to petrographic and proximate analyses. Indonesian Mining J. 13, 3, p. 128-134.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/519/383)
(Coals in Eocene Kuaro Fm in Manggkalihat area of E Kalimantan, below Oligocene and younger limestone section. Three seam,s 1.5-4.0m thick. Coals with very thin claystone-sandstone laminae and rel. common pyrite, suggesting marine influence during deposition. High moisture (15-19%). Vitrinite reflectance 0.46-0.49% (subbituminous A and B rank))

Sapiie, B. & A. Rifiyanto (2017)- Tectonics and geological factors controlling cleat development in the Barito Basin, Indonesia. J. Engineering Technol. Sci. (ITB), 49, 3, p. 322-339.
(online at: http://journals.itb.ac.id/index.php/jets/article/view/3510/2961)

(Late Eocene Tanjung Fm and E-M Miocene Warukin Fm coals in Barito Basin with cleats (micro-fractures) predominantly oriented in WNW-ESE and NNE-SSW directions. Cleat density increases with structural position like fold hinges and fault zones. Cleats form during coalification (shrinkage), and are superimposed by later processes like fluid pressure and tectonic stresses and also affected by composition of the coal)

Saputra, I. & A.Y. Prasetya (2017)- Pulse of depositional environment change in Tarakan Basin: some perspective from onshore Simenggaris Area. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 4p.
(In Tarakan Basin much of Eocene- E Miocene in marine facies. Common Oligocene limestones. Late M Miocene huge sediment influx came in into Tarakan basin and deltaic sedimentation began)

Saputra, I., T. Wibisono & A.Y. Prasetya (2018)- Middle Miocene depositional environment shift in the Tarakan Basin: some perspectives from the onshore Simenggaris area. Berita Sedimentologi 40, p. 45-54.
(online at: http://www.iagi.or.id/fosi/berita-sedimentologi-no-40.html)
(Stratigraphic succession in onshore Tarakan Basin two major depositional environments: Eocene-E Miocene marine and upper M Miocene-Pliocene deltaic depositional environment)

Sardjono (1999)- Gravity field and structure of the crust beneath the Kutei Basin, East Kalimantan, Indonesia. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 62. *(Abstract only)*
(Summary of gravity field of Kutei Basin and surrounding areas. Onshore Bouguer anomalies generally from +10 to +50 mGal; in Balikpapan area depocenter ~75 mGal. Assuming 9000m of sediment and underlying continental crust, anomalies here should be ~ -115 mGal. One possible explanation is rise in Moho)

Satyana, A.H., M.E.M. Purwaningsih & M. Imron (2002)- Coal seams within Eocene Tanjung Formation of the Barito Basin, Southeast Kalimantan: sequence stratigraphic framework and geochemical constraints for source potential. Berita Sedimentologi (Indon. Forum Sedimentologi, FOSI) 17, p. 14-21, 26.
(Barito Basin M Eocene synrift- postrift Lower Tanjung Fm clastics 7 sequences. Coals in three sequences of postrift phase. Mostwidespread and thickest coal seams in transition between synrift- postrift phases. Coals deposited in paralic to upper deltaic settings in various systems tracts. Coals TOC 44-73%, hydrogen index (HI) 285-567 mgHC/gTOC and hydrogen to carbon ratio (H/C) of 0.87-1.18, showing coals are liptinitic and can generate oil. Carbon isotopes and biomarkers show Tanjung Fm coals sourced Tanjung field oil)

Septama, E., H. Darman & T. Tri Handayani (2017)- Mahakam delta system: the integration of outcrops, modern depositional processes and subsurface data. IAGI Fieldtrip Guidebook, p. 1-66.

Setyaningsih, C.A. (2009)- Studi palinologi Formasi Mentawir, Sub Cekungan Kutai Bawah, Kalimantan Timur. Jurnal Widyariset (LIPI) 12, 1, p. 109-115.
(online at: http://widyariset.pusbindiklat.lipi.go.id/index.php/widyariset/article/view/205/198)
('Palynological Study of the Mentawir Formation, Lower Kutai subbasin, E Kalimantan'. Palynology of interval 100'-4140' in well 'X' of 'DNA' field. Age mainly M Miocene (F. trilobata zone), 100-850' Late Miocene)

Sidi, F.H. (1998)- Sequence stratigraphy, stratigraphy, epositional environment and reservoir geology of the Middle Miocene fluvio-deltaic succession in Badak and Nilam fields, East Kalimantan. M.Sc Thesis, Queensland University of Technology, Brisbane, p.

Suandhi, P.A., A. Bachtiar, P.T. Setyobudi, E. Nurjadi, A. Mardianza, B.D. Harisasmita, M. Arifai & D. Hendro H.N. (2017)- Sangatta delta evolution with an updated Miocene paleogeography. Berita Sedimentologi 39, p. 25-36.
(online at: www.iagi.or.id/fosi/files/2017/12/FOSI_BeritaSedimentologi_No39_Dec2017.pdf)
(Discussion of Miocene-age Sangatta Delta system (Balikpapan and Kampung Baru Fms) in NE Kutai Basin. Development controlled by Rantau Pulung- Mangkupa paleohigh, bound by NE-SW and N-S strike slip faults that represent Neogene reactivations of old basement faults. Delta development started with small proto-

Sangatta Delta in E Miocene and became larger during M-L Miocene after inversion/ uplift at Kuching High to W. More than 10 stacked, E-ward prograding fluvial-deltaic parasequence sets)

Suandhi, P.A. P.T. Setyobudi, A. Bachtiar, E. Nurjadi, A. Mardianza, B.D. Harisasmita, M. Arifai & D. Hendro H.N. (2018)- Sangatta delta evolution with an updated Miocene paleogeography. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-166-G, 12p.
(N Kutai Sangatta delta (Balikpapan and Kampung Baru Fms) development started in E Miocene with at least two fluvial-deltaic parasequence sets prograding to E. Delta became larger in M-L Late Miocene as regional inversion and uplift took place at Kuching High to W of delta. >10 stacked fluvial- deltaic parasequence sets identified, all showing progradation to E)

Subekti, A., K.P. Laya, E Guritno & M.N. Krisnayadi (2017)- Greater Bangkanai prospectivity: the application of full-tensor gravity and magnetic survey, onshore Central Kalimantan. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-361-G, 17p.
(Gravity mag survey in upper Kutai Basin, in area with Kerendan and West Kerendan gas fields in Oligocene carbonates. NE-SW trending surface anticlines are mainly (M Miocene?) inversions of M-L Eocene extensional structures)

Subroto, E.A. (2015)- The role of coaly materials as source rocks (conventional and unconventional) in the Kutai Basin, Indonesia. In: Hydrocarbons in the tropics: on the edge, Abstracts 32nd Ann. Mtg. Soc. Organic Petrology, Yogyakarta 2015, p. 123-128. *(Extended Abstract)*
(Five proven and potential types of petroleum source rocks identified in Kutai basin. Most oils tied to deltaic coaly shales. Coaly materials significant role in hydrocarbon generation, conventional and unconventional)

Sudarmono, A. Direza, H.B. Maulin & A. Wicaksono (2017)- Some new insights to tectonic and stratigraphic evolution of the Tarakan sub-basin, North East Kalimantan, Indonesia. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-722-G, 22p.
(Tarakan Basin with E-ward prograding fluvio-deltaic sedimentation since E Miocene, sourced from multiple feeder rivers (Sesayap, Sesanip and others). Deltaics at and E of Bunyu Island deposited on oceanic crust of Celebes Sea. Tarakan sub-basin bounded by left-lateral strike slip faults Sampoerna (in N; Celebes Sea transform fault?) and Maratua and Mangkalihat FZs (in S; continuation of Palu-Koro fault of Sulawesi?). Major tectonic event at end of Late Miocene (end of Santul Fm), which uplifted part of area E of Kucing High. Second major tectonic event in Pleistocene, forming present-day Bunyu, Tarakan and Ahus structures)

Sudradjat A. & A.H. Hamdani (2015)- The tectonic control on the formation of cleats in the coalbeds of Sajau Formation, Berau Basin, Northeast Kalimantan. The 2nd. Int. Conf. and 1st Joint Conf. Faculty Geology Univ. Padjadjaran Univ. Malaysia Sabah (IGC 2015), p. 187-192.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/The-Tectonic-Control-on-the-Formation-of-Cleats-in-the-Coalbeds-of.pdf)
(Distributions of cleat orientation, spacing, and aperture in Pliocene Sajau Fm lignite seams controlled by main tectonic structures in area)

Sulaeman, Teteh S. (1997)- Late Tertiary palynology of the Handil Field, Kutei Basin, East Kalimantan, Indonesia. Ph.D. Thesis, University of Queensland, p. 1-228. *(Unpublished)*
(Palynostratigraphic study on core samples from Miocene reservoirs 28- 4 in 22 wells in Handil Field, Mahakam Delta. Palynoflora composition: 224 species of fungal spores, 88 species of pollen grains and 14 species of spores. Four E Miocene- E Pliocene informal stratigraphic assemblages distinguished, based on subzones of Florschuetzia meridionalis Zone)

Sunardi, E., V. Isnaniawardhani, I. Cibaj, Amiruddin & I. Haryanto (2014)- The lithological succession in East Kutai Basin, East Kalimantan, Indonesia: revisited in a new data on litho-biostratigraphic. Int. Journal of Science and Research (IJSR) 3, 4, p. 707-713.
(online at: https://www.ijsr.net/archive/v3i4/MDIwMTMxNTcy.pdf)

(Brief review. Kutai Basin basement slickensided serpentinites (Kuaro, Muru River) and deep marine turbiditic metasediments with polymict conglomerate, and pelagic sediments (Tewe River), interpreted as Jurassic ultramafic complex. Overlain by E Miocene(?) and younger beds with numerous repetitions of prograding patterns (fluvial-deltaic and shallow marine facies, with transgressive carbonate build ups). In Late Miocene retrograding patterns and progressively deeper facies)

Vandenbroucke, M., Y. Debyser, M. Fabre, M. Montacer, P. Pillon, L. Jocteur-Monrozier & P. Jeanson (1987)- Geochemie de la matiere organique du sondage Misedor. In: A. Combaz (ed.) Geochimie organique des sediments plio-quaternaires du delta de la Mahakam (Indonesie)- le sondage Misedor, Editions TECHNIP, Paris, p. 257-292.
('Geochemistry of the organic matter of the Misedor well'. Geochemical analyses of organic matter in Late Pliocene- Recent sediments of interval 0-640m in the Misedor well, SW Mahakam Delta. Organic matter all Type III, and derived from same higher land plants as organic matter in deeper water deltaic sediments)

Van Gorsel, J.T. (2016)- A photographic journey through the Cretaceous-Tertiary stratigraphy of the Meratus Mountains-Barito Basin margin, SE Kalimantan. Berita Sedimentologi 34, p. 26-34.
(online at: www.iagi.or.id/fosi/files/2016/01/BS34-01142016_FINAL.pdf)

Von Ettingshausen, C. (1883)- Zur Tertiarflora von Borneo. Sitzungsberichte Akademie Wissenschaften, Wien, 88, p. 372-376.
(online at: www.zobodat.at/pdf/SBAWW_88_0372-0384.pdf)
('On the Tertiary flora of Borneo')

Weimer, R.J. (1975)- Impressions of the geology of the Mahakam delta complex and petroleum exploration. Majalah Geologi Indonesia (IAGI) 2, 2, p. 45-47.
(Mahakam Delta Complex may be small scale aulacogen showing associated delta depocenters. Sedimentary prism underlain by oceanic crust. Interplay of basin development, deltaic sedimentation and intrabasin deformation displayed in E Kalimantan favors large petroleum prospects)

Werdaya, A., M. Alexandra, K. Nugrahanto, R. Anshori, A. Pradipta & P. Armitage (2017)- Comprehensive evaluation of reservoir quality in the Early Miocene, Kutai Basin, onshore East Kalimantan. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-569-G, 24p.
(E Miocene deltaic-shelfal clastic play in onshore Upper Kutai basin only partly explored. Sandstone reservoir quality linked to deep burial main risk. QFL plots show E Miocene sandstone sub-litharenite to litharenite, with lithics mainly metamorphic and sediment fragments (less quartz than M Miocene sandstones))

Wibisono, S.A. & E.A. Subroto (2018)- Hubungan peringkat batubara terhadap kandungan Gas Metana Batubara Formasi Warukin Bagian Tengah pada sumur BSCBM-01, Kabupaten Paser, Provinsi Kalimantan Timur. Bulletin of Geology (ITB) 2, 1, p. 149-162.
(online at: https://buletingeologi.com/index.php/buletin-geologi/issue/view/4/Paper-2%20vol.%202%20no.%201)
('Relationship of coal ranking to Coal Methane Gas content of Middle Warukin Formation at Well BSCBM-01, Paser Regency, East Kalimantan Province'. M Warukin Fm coals from 116-389m in N Barito basin well subbituminous, Type II kerogen, with total biogenic gas content 3-121 scf/ton, percentage methane 12-96%)

Widiyanto, D.W., D.S. Djohor, H. Pramudito & Untung (2014)- Studi penentuan fasies lingkungan pengendapan batubara dalam pemanfaatan potensi gas metana batubara di daerah Balikpapan, Kalimantan Timur berdasarkan analisis proximate dan petrografi. MINDAGI 8, 2, p. 23-36.
(online at: http://www.trijurnal.lemlit.trisakti.ac.id/index.php/mindagi/article/view/96/96)
('Study of depositional facies of coal in utilization of coalbed methane gas potential in the Balikpapan, East Kalimantan area, based on proximate analysis and petrography'. Core from 130m deep EPL 01 well in Miocene Balikpapan Fm in Penajam area. 11 coal layers 0.2-3.1m thick, lignite- sub bituminous rank (Rv 0.28-0.38%), up to 84% vitrinite. Environment wet forest swamp, dominated by woody plants, in lower delta plain)

Wijaya, P.H., D. Noeradi, A.K. Permadi, E. Usman & A.W. Djaja (2012)- Potensi migas berdasarkan integrasi data sumur dan penampang seismik di wilayah offshore cekungan Tarakan, Kalimantan Timur. J. Geologi Kelautan 10, 3, p. 117-131.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/221/211)
('Oil and gas potential based on well and seismic data integration in offshore Tarakan basin, East Kalimantan')

Win, C.T., D.H. Amijaya, S.S. Surjono, S. Husein & K. Watanabe (2014)- A comparison of maceral and microlithotype indices for interpretation of coals in the Samarinda area, Lower Kutai Basin, Indonesia. Advances in Geology 2014, Art. 571895, 17 p.
(online at: https://www.hindawi.com/journals/ageo/2014/571895/)
(Coals from 250m of M Miocene (Seravallian) Balikpapan Fm exposed in section near Samarinda. Coals degraded humodetrinite-rich group, deposited from terrestrial into telmatic condition of peat formation, with vegetation of degraded woody forest type. These formed with intermittent moderate to high flooding as paleopeat environment shifted from mesotrophic to ombrotrophic)

Win, C.T., S.S. Surjono, D.H. Amijaya, S. Husein, A. Aihara & K. Watanabe (2013)- Distribution of pyrite and mineral matter in coal seams from Samarinda area, Lower Kutai Basin, Indonesia. In: ASEAN Forum on clean coal technology, 11th Int. Conf. Mining Material and Petrol. Engineering, Chiang Mai 2013, p. 17-24.
(online at: http://mining.eng.cmu.ac.th/wp-content/uploads/2013/11/Clean-Coal-Technology_4_PaperID-35.pdf)
(Samples of coal from Balikpapan Fm near Samarinda with both epigenetic and syngenetic pyrite. Tied to influence of marine conditions, more prominent in lower part of studied section. Epigenetic pyrite and minerals may originate from erosion of E Tertiary marine sediments of C Kalimantan ridge)

Winantris, I., H. Hamdani & E. Harlia (2017)- Paleoenvironment of Tanjung Formation Barito Basin- Central Kalimantan. J. Geoscience Engineering Environm. Technol. 2, 2, p. 110-116.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/download/305/126)
(Late Eocene coals in Tanjung Fm inMuara Teweh area, N Barito Basin, formed in, in upper delta plain swamp environment with marine influence. Palynomorphs grouped into six types: fresh water and lowland (42%), brackish water swamp (30%), peat and freshwater swamp (18%), marine (8%), backmangrove (1.5%) and upland (1%). Palmae pollen dominant (Dicolcopollis, Proxapertites cursus, P. operculatus, Longapertites and Palmaepollenites kutchensis). Also with Magnastriatites howardi Verrucatosporites usmensis, Retistephanocolpites and Ixonantes, indicative of Late Eocene age)

Winantris, I. Syafri & R. Rinawan (2006)- Kandungan mikrofosil dalam formasi pembawa batubara dari daerah Perian, Kecamatan Muntai, Kabupaten Kutai Kartanegara, Kalimantan Timur. Bull. Scientific Contr. (UNPAD) 4, 1, p. 7-17.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8109/3686)
('Microfossils in the coal-bearing formation in the Perian region, Muntai District, Kutai Regency, East Kalimantan'. Palynomorphs from 4 samples from Perian River in Kutai Basin include Stenochlaenidites papuanus, Florschuetzia meridionalis and F. levipoli, suggesting most likely M Miocene age. Foraminifera rare Miocene forms only. Mainly mangrove and swamp environments)

Wiweko, A. (1998)- Sedimentary facies and depositional geometry of distributary mouth bars in Tunu Field, Miocene Kutei Basin and comparison with modern Mahakam Delta. Ph.D. Thesis Queensland University of Technology, p.

Wulandari, T., A. Sukapradja, A. Krisnaputra & J. Clark (2016)- An integrated reservoir characterization to determine remaining potential in Sisi Nubi Field. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 485-494.
(Sisi -Nubi gas fields, 25 km offshore Mahakam delta, discovered in 1986 and 1992 and cumulative production >1 TCF gas, and 26 MMbbl condensates. With 4 main producing intervals, 69 geological layers and >300 fluvial- deltaic reservoir units)

Yoga, T.Y & F. Tampilang (2016)- Mahakam Delta core workshop: TM-62 core synthesis a tight G zone reservoir, Tambora Field, East Kalimantan. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 47-TS-16, p. 1-13.
(Core description of delta distributary channel and mouth bar sand of M-U Miocene G-zone reservoir in Tambora Field, Mahakam Delta)

Yuniardi, Y. (2006)- Potensi dan kualitas batubara daerah Lipon Gedang, Kecamatan Sungai Durian, Kabupaten Kotabaru, Kalimantan Selatan. Bull. Scientific Contr. (UNPAD) 4, 1, p. 41-51.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8113/3689)
(On Eocene Tanjung Fm coal potential in Lipon-Gendang area, Sungai Durian District, E of Kandangan Meratus Mts front, SE Kalimantan. Four outcropping coal seams mapped, 0.2- 3m thick. Predicted resources 1,403,550 ton with average caloric value of ~5400 cal/gr and average sulfur 1.47%)

Yuniardi, Y., R. Fakhrudin & L. Jurnaliah (2010)- Zonasi paleontologi Cekungan Kutai Bagian Bawah, daerah Balikpapan dan sekitarnya, Provinsi Kalimantan Timur. Bull. Scientific Contr. (UNPAD) 8, 2, p. 123-129.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8250/3798)
(Paleontological zonation of the Lower Kutai Basin, Balikpapan and surrounding area, East Kalimantan'. Brief general discussion of Miocene- Recent foraminifera, calcareous nannoplankton and palynology biozonations. No details on Kutai Basin)

Yuniardi, Y., B. Muljana & R. Fakhrudin (2012)- Kronostratigrafi Cekungan Kutai bagian bawah, daerah Balikpapan dan sekitarnya, Kalimantan Timur. Bull. Scientific Contr. (UNPAD) 10, 1, p. 41-57.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8277/3824)
('Chronostratigraphy of the lower Kutai Basin in Balikpapan and surrounding area, East Kalimantan'. Brief review of latest Oligocene- Pliocene biozones in outcrops of Kutai basin. Little location/stratigraphy detail)

Zahra, K.A., A.H. Hamdani & R.T. Rosmalina (2015)- Paleoenvironmental implications from biomarker investigations on the Pliocene Lower Sajau lignite seam in Kasai Area, Berau Basin, Northeast Kalimantan, Indonesia. J. Geoscience and Environment Protection 3, 5, p. 140-152.
(online at: http://file.scirp.org/pdf/GEP_2015080611180523.pdf)
(Pliocene age lignites from Lower Sajau seam in borehole in Kasai Coal Field, Berau Basin. Lignite-grade coal with abundant terpenoid biomarkers including lupane and oleanane indicate angiosperm-dominated vegetation. Also hopanoid biomarkers indicating acidic depositional environment)

Zajuli, M.H.H. & J. Wahyudiono (2018)- Rock-Eval pyrolysis of the Oligocene fine-grained sedimentary rocks from the Pamaluan Formation, Gunung Bayan Area, West Kutai Basin, East Kalimantan : implication for hydrocarbon source rock potential. J. Geologi Sumberdaya Mineral 19, 2, p. 73-82.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/343/338)
(?Late Oligocene shales of coal-bearing Pamaluan Fm in Gunung Bayan area of upper/NW Kutai Basin poor-good quality source rock with gas-prone Type III kerogen. Maturity level mainly immature)

Zhang, Z. & C.S. Wright (2017)- Quantitative interpretations and assessments of a fractured gas hydrate reservoir using three-dimensional seismic and LWD data in Kutei basin, East Kalimantan, offshore Indonesia. Marine Petroleum Geol. 84, p. 257-273.
(Description of fractured gas hydrate reservoir over 500 km region from seismic data in offshore Kutei basin)

IV.3. North Borneo (Sarawak, Sabah, Brunei) (127)

Abdul Hadi, A.R., K. Xainey, M.S. Ismail & N. Mazshurraiezal (2017)- Sedimentology of the Lambir Formation (Late Miocene), northern Sarawak, Malaysia. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 569-580.

Abdullah, Nuraiteng T. & A. Kushairi (1987)- Pedawan Formation of the Penrissen area, Sarawak: a revision of its upper age limit. Warta Geologi (Newsl. Geol. Soc. Malaysia) 13, 2, p. 43-50.
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1987002.pdf)
(Youngest Globotruncana species at top of Pedawan Fm in Penrissen area (S of Kuching) Marginotruncana coronata, Marginotruncana angusticarinata and Dicarinella carinata, signifying U Santonian age)

Abdullah, Nuraiteng T. & C.Y. Yaw (1993)- Distribution of foraminiferal assemblages in the Upper Eocene Batu Gading Limestone, Sarawak. In: T. Thanasuthipitak (ed.) Int. Symposium Biostratigraphy of mainland Southeast Asia: facies and paleontology (BIOSEA), Chiang Mai 1993, 1, p. 231-242.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1993/..)
(In Batu Gading are off Baram River, Sarawak, S of Brunei, , massive U Eocene limestone, disconformably overlain by Late Oligocene limestone breccia with mixed Late Eocene and Late Oligocene taxa, suggesting post-Late Eocene emergence. With abundant Eocene larger foraminifera, incl. Nummulites javanus, N. pengaronensis, Discocyclina, Asterocyclina. Limestones overlain by deep marine beds with earliest Miocene Globigerina sellii- G. binaiensis planktonic foraminifera)

Abdullah, W.H., M.H. Hakimi, I.E. Shushan & A.H.B. Rahman (2017)- Petroleum source rock characteristics of marine versus coastal settings: A comparative study between Madbi Formation of Masila Basin, Yemen and Nyalau Formation of Sarawak, Malaysia. Bull. Geol. Soc. Malaysia 63 (Geol. Soc. Malaysia 50th Anniversary Issue 1), p. 103-115.
(online at: www.gsm.org.my/products/702001-101706-PDF.pdf)
(Comparison of two completely different oil source rocks, Jurassic of Yemen and Oligo-Miocene of Sarawak)

Abdullah, W.H., S.Y. Lee, M.K. Shuib & M.H.A. Hakimi (2011)- Organic-rich sequences of the Miri Formation, Sarawak : implication for oil generating potential. Proc. 24th Ann. National Geoscience Conference 2011 (NGC2011), Johor Baru, B13, p. 52-53. *(Extended Abstract)*
(online at: http://geology.um.edu.my/gsmpublic/NGC2011/NGC2011_Proceedings.pdf)
(Organic facies in outcrops around Miri, Sarawak. M Miocene Miri Fm with organic-rich sandstone intervals with coal clasts and carbonaceous laminae. Early mature (Vitrinite reflectance Ro 0.35- 0.50%))

Abdullah, W.H., O.S. Togunwa, Y.M. Makeen, M.H. Hakimi, K.A. Mustapha, M.H. Baharuddin, S.G. Sia & F. Tongkul (2017)- Hydrocarbon source potential of Eocene-Miocene sequence of Western Sabah, Malaysia. Marine Petroleum Geol. 83, p. 345-361.
(Organic matter present in all formations studied mainly of terrigenous origin and gas prone (Type III and Type III-IV kerogen), except for minor occurrence of mixed oil-gas prone Type II-III kerogen in Miocene Belait Fm and in slump mass transport deposits of West Crocker Fm)

Algar, S., C. Milton, H. Upshall, J. Roestenburg & P. Crevello (2011)- Mass-transport deposits of the deepwater Northwestern Borneo margin- characterization from seismic-reflection, borehole, and core data with implications for hydrocarbon exploration and exploitation. In: R.C. Shipp et al. (eds.) Mass-transport deposits in deepwater settings, Soc. Sedimentary Geology (SEPM) Spec. Publ. 96, p. 351-366.
(In Late Miocene to Recent deep water thrust belt off NW Borneo up to 50% of sediments large-scale remobilized mass-transport deposits. MTD's 10-200m thick, composed mainly of claystone. Intercalated with turbidites, which form sandstone reservoirs of petroleum discoveries. Thickest sands often immediately overlying MTDs. MTD lithofacies continuum from debritic claystones to more simply folded claystones)

Ali, M.Y. (2014)- An integrated analysis of the depositional control, sedimentology and diagenesis of Cenozoic carbonates from the Sarawak Basin, East Malaysia. Ph.D. Thesis Imperial College, University of London, p. 1-467.
(online at: https://spiral.imperial.ac.uk/handle/10044/1/29605)
(Comprehensive analysis of Cenozoic carbonates from Sarawak Basin, both onshore (4 Late Eocene -E Miocene units) and offshore (4 M-L Miocene build-ups in offshore C Luconia). Carbonate growth mainly controlled by paleo-basement structures: some carbonates on flat rift blocks show flat-top morphology; on tilted sub-blocks often conical shapes. Eustacy probably main controlling mechanism for carbonate growth. Late Eocene Lower Batu Gading Lst massive nummulitic facies with Pellatispira; E Miocene U Batu Gading Lst on disconformity and composed of finely bedded and brecciated limestones. Suai Lst (Te5?) fining-upward parasequences of larger foraminifera dominated by large Eulepidina spp. E Miocene Subis Lst (Te5) rich in corals, foraminifera and algae. Bekenu Lst laminated marls-shale calci-turbidites). Luconia offshore carbonates greater similarity in facies and sequences. Ten stages of calcite cementation/ dolomitisation. Presence of high T minerals indicate late stage corrosive fluids of hydrothermal origin, responsible for porosity- permeability enhancement of reservoirs)

Asis, J. & Basir Jasin (2011)- Some Cretaceous radiolaria from Darvel Bay Ophiolite complex, Kunak, Sabah. Proc. 24th Ann. National Geoscience Conference 2011 (NGC2011), Johor Baru, B13, p. 82. *(Abstract)*
(online at: http://geology.um.edu.my/gsmpublic/NGC2011/NGC2011_Proceedings.pdf)
(Darvel Bay Ophiolite Complex of SE Sabah withperidotite, gabbro, pillow basalt and reddish-brown chert. Cherts along Kunak-Semporna road with 56 species of radiolaria, of 3 assemblages: I: Aptian-Albian, with Sticomitra simplex, Crucella bossoensis, etc.; II: Albian-Cenomanian, with Xitus mclauglini, Pseudoaulophacus sculptus, Dictyomitra gracilis, etc.; III: Turonian, with Pseudotheocampe tina, Crucella cahensis, Dictyomitra multicostata, etc.. Bedded chert with abundant radiolarians indicates high plankton productivity, possibly related to upwelling. Absence of limestone suggests deposition below CCD depth)

Asis, J. & Basir Jasin (2015)- Miocene larger benthic foraminifera from the Kalumpang Formation in Tawau, Sabah. Sains Malaysiana 44, 10, p. 1397-1405.
(online at: www.ukm.my/jsm/pdf_files/SM-PDF-44-10-2015/04%20Junaidi%20Asis.pdf)
(Samples of Kalumpang Fm/ Sipit Mb reefal limestone in 46m thick section at Teck Guan Quarry, 50km E of Tawau, SE Sabah. Formation faulted and thrusted against Cretaceous Darvel Bay Ophiolite Complex at Darvel Bay area. 17 species of larger foraminifera, in two assemblages: (1) Lepidocyclina (N) parva, L. (Eulepidina) formosa (Te5, Aquitanian-Burdigalian; E Miocene); (2) Lepidocyclina (N) sumatrensis, Lepidocyclina (N) angulosa, Lepidocyclina spp., Miogypsina sp., Katacycloclypeus annulatus, Cycloclypeus spp., Flosculinella bontangensis, etc. (Tf1-2; M Miocene))

Aziz bin Ali, Che (1993)- Sedimentology and diagenesis of the E11 carbonate buildup and the Subis Limestone (Miocene), Sarawak, Malaysia. Ph.D. Thesis, University of Reading, p. 1-. *(Unpublished)*

Baioumy, H., A.M. A. Salim, M.H. Arifin, M.N.A. Anuar & A.A. Musa (2018)- Geochemical characteristics of the Paleogene-Neogene coals and black shales from Malaysia: implications for their origin and hydrocarbon potential. J. Natural Gas Science Engineering 51, p. 73-88.
(On Cenozoic coals and associated black shales in Peninsular Malaysia (Eocene- Oligocene coals in small basins on West coast), Sarawak (Late Oligocene- Miocene coals in Nyalau, Liang, Begrih and Balingian Fms) and S Sabah (M Miocene coals in Tanjong Fm). All have mixed Type II-III kerogens and hydrogen index suggesting potential for gas and oil generation. Coals and black shales from M Miocene Tanjong Fm formed under wetter climate conditions than others)

Barker, S.M., J. Jong, Q.T. Tran, K. Ogawa & S. Noon (2017)- A high resolution bio-sequence stratigraphic interpretation of quaternary geology- a case study from deepwater Sarawak area. Asia Petroleum Geoscience Conf. Exhib. (APGCE 2017), Kuala Lumpur, 43205, p. 29-37. *(Extended Abstract)*
(Bunguran Trough is intra-continental pull-apart basin in deepwater offshore Sarawak, and distal part of Rajang Delta system. Discussion of Messinian-Holocene sequence/ biostratigraphy in area based on new JX

Nippon 'T-1' exploration well, with ~770m thick M Pleistocene and almost 1000m Late Pleistocene- Holocene. New Late Pleistocene- Holocene cycle (cycle IX) proposed for Shell 'NW Borneo cycle scheme')

Behain, D. (2005)- Gas hydrate offshore NW Sabah: morpho-tectonic influence of gas hydrate and estimation of concentration of gas hydrate above and free gas below the gas hydrate stability zone. Doct. Thesis Technische Universitat Clausthal, p. 1-153.
(online at: www.gbv.de/dms/clausthal/E_DISS/2005/db107866.pdf)
(In offshore NW Sabah gas hydrates, with Bottom-Simulating Reflector on seismic, mainly in zone of coast-parallel ridges (top of imbricated thrust anticlines). Minimum water depth for BSR 600m, and 250-350m below seafloor)

Ben-Awuah, J. & E. Padmanabhan (2014)- Porosity and permeability modifications by diagenetic processes in fossiliferous sandstones of the West Baram Delta, Offshore Sarawak. Int. J. Petroleum Geoscience Engineering (IJPGE) 2, 2, p. 151-170.
(online at: www.aropub.org/wp-content/uploads/2014/07/AROPUB-IJPGE-14-61.pdf)
((Productive units of M-U Miocene cycles V and VI in Baram Delta have enhanced porosity-permeability from dissolution of fossils. Similar to 2015 paper below)

Ben-Awuah, J. & E. Padmanabhan (2017)- Heterogeneity in hydrocarbon and organic matter distribution in the offshore West Baram Delta, Sarawak Basin. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 373-384.

Ben-Awuah, J., E. Padmanabhan, S. Andriamihaja, P.O. Amponsah & Y. Ibrahim (2016)- Petrophysical and reservoir characteristics of sedimentary rocks from offshore west Baram Delta, Sarawak Basin, Malaysia. Petroleum and Coal 58, 4, p. 414-429.
(online at: www.vurup.sk/wp-content/uploads/dlm_uploads/2017/07/pc_4_2016_awuah_444.pdf)
(Reservoir quality of M-U Miocene sandstones on offshore W Baram Delta wells. Average porosity 25 %, permeability 1911 mD for coarse grained sandstones, 5.7 % and 1.4 mD for very fine grained sandstones, 16.5% and 23 mD for bioturbated sandstone, etc. Excellent reservoir rock quality in coarse sandstones attributed to lack of cement between grains, good intergranular porosity and pore connectivity)

Ben-Awuah, J., E. Padmanabhan & R. Sokkalingam (2017)- Geochemistry of Miocene sedimentary rocks from offshore West Baram Delta, Sarawak Basin, Malaysia, South China Sea: implications for weathering, provenance, tectonic setting, paleoclimate and paleoenvironment of deposition. Geosciences J. 21, 2, p. 167-185.
(Geochemistry, provenance, tectonic setting, etc., of offshore Miocene clastics in W Baram Delta Sandstones provenance mainly felsic-intermediate igneous with minor mafic contribution. Passive margin tectonic setting after continental collision and rifting stages of foreland basin. Paleoclimate warm and humid, enhancing chemical weathering)

Bernard, B.B. (2005)- Proof of an active petroleum system in the Bunguran delta front, deepwater Sarawak, East Malaysia. Proc. 2005 SE Asia Petroleum Expl. Soc. (SEAPEX) Conf., Singapore, 36p. *(Abstract + Presentation)*
(Geochemical indications of thermogenic gas and non-biodegraded oil seepage in 6 of 10 piston cores from Amerada Hess Block F, off Sarawak)

Bidgood, M.D., M.D. Simmons & C.G.C, Thomas (2000)- Agglutinated foraminifera from Miocene sediments of northwest Borneo. In: M.B. Hart et al. (eds.) Proc. 5 Int. Workshop on Agglutinated foraminifera, Plymouth 1997, Grzybowski Foundation Spec. Publ. 7, p. 41-58.
(online at: www.gf.tmsoc.org/Documents/IWAF-5/Bidgood+Simmons+Thomas-IWAF5-1997.pdf)
(34 taxa of agglutinated forams in Miocene of Brunei and Sarawak and paleoenvironmental interpretation)

Breitfeld, H.T. (2015)- Provenance, stratigraphy and tectonic history of Mesozoic to Cenozoic sedimentary rocks of West and Central Sarawak, Malaysia. Ph.D. Thesis, Royal Holloway, University of London, p. 1-808. *(Unpublished)*

Breitfeld, H.T. & R. Hall (2018)- The eastern Sundaland margin in the latest Cretaceous to Late Eocene: Sediment provenance and depositional setting of the Kuching and Sibu Zones of Borneo. Gondwana Research 63, p. 34-64.
(Kuching Zone in Borneo several large sedimentary basins of Late Cretaceous- Late Eocene age. W Sarawak Kayan Basin with U Cretaceous- Lower Eocene Kayan and Penrissen Sandstones (Late Cretaceous- Paleocene with abundant Cretaceous, Permian-Triassic and Precambrian zircons; Paleocene- E Eocene mainly Cretaceous zircons from Schwaner granites of SW Borneo). In Kuching Zone Ketungau Basin with unconformably overlying M-U Eocene Ketungau Group, with oldest sediments derived from nearby sources, probably Triassic Sadong and Kuching Fms. Kuching sediments can be correlated with deep marine Rajang Gp. Some magmatism but scarcity of contemporaneous zircons indicates it was very minor)

Breitfeld, H.T., R. Hall, T. Galin, M.A. Forster & M.K. BouDagher-Fadel (2017)- A Triassic to Cretaceous Sundaland- Pacific subduction margin in West Sarawak, Borneo. Tectonophysics 694, p. 35-56.
(online at: http://searg.rhul.ac.uk/pubs/breitfeld_etal_2017%20Triassic-Cretaceous%20Sarawak%20subduction%20margin.pdf)
(Metamorphic rocks in W Sarawak previously assumed to be pre-Carboniferous basement but new Ar/Ar ages from quartz-mica schists show Late Triassic metamorphism (~216-220 Ma; Norian). Metamorphics associated with Triassic acid and basic igneous rocks. Late Triassic Sadong Fm with youngest zircon ages of ~205, 212 Ma and inherited age peaks of 240-270 Ma and 1.8 Ga. Zircon ages from Jagoi Granodiorite ~208 Ma with inherited ages of 240 Ma, reflecting M-L Triassic subduction in W Sarawak (most likely W-directed Paleo-Pacific subduction). W Sarawak and NW Kalimantan underlain by continental crust that was already part of Sundaland in Triassic. Detrital zircon ages in Cretaceous volcanoclastic Pedawan Fm with major peaks 110-120, 150-160, 220-240, 250-260 Ma, 1.8-1.9 Ga), similar to ages of Schwaner granites of SW Kalimantan plus additional sources; interpreted as Cretaceous forearc basin with material eroded from magmatic arc that extended from Vietnam to W Borneo. Youngest ages from zircons in tuff layer from uppermost Pedawan Fm indicate end of volcanic activity/ subduction at ~86-88 Ma. Cretaceous metamorphism of Serabang, Sejingkat, Sebangan Fms and Lubok Antu- Kapuas (and Boyan?) melange associated with Cretaceous subduction zone. Results of study cast doubt on existence of separate 'Semitau block')

Breitfeld, H.T., R. Hall, T. Galin, M.A. Forster & M.K. BouDagher-Fadel (2018)- Unravelling the stratigraphy and sedimentation history of the uppermost Cretaceous to Eocene sediments of the Kuching Zone in West Sarawak (Malaysia), Borneo. J. Asian Earth Sciences 160, p. 200-223
(online at: http://searg.rhul.ac.uk/pubs/breitfeld_etal_2018%20Kuching%20provenance.pdf)
(Kuching Zone in W Sarawak two sedimentary basins (Kayan, Ketungau) that extend into Kalimantan. Uppermost Cretaceous (Maastrichtian)- Lower Eocene Kayan Gp above Pedawan Unconformity, marking end of Paleo-Pacific subduction-related magmatism (above Cretaceous Pedawan Fm forearc sediments). Kayan and Penrissen Sst mainly fluvial- alluvial fan deposits. In late E or early M Eocene, sedimentation in basin ceased and Ketungau Basin developed to E. Change marked by Kayan Unconformity. Sedimentation resumed in M Eocene (Lutetian) with marginal marine Ngili Sst and fluvial Silantek Fm. Top of Ketungau Gp fluvial-dominated Tutoop Sst. Paleocurrent measurements show dominant southern source, suggesting uplift of S Borneo in region of Schwaner Mountains from latest Cretaceous onwards. Ketungau Gp also with reworked Kayan Gp. Kuching Supergroup predominantly horizontal or low dips, with steep dips restricted to faults)

Breitfeld, H.T., J. Hennig, M.K. BouDagher-Fadel & R. Hall (2017)- The Rajang unconformity: major provenance change between the Eocene and Oligo-Miocene sequences in NW Borneo. American Geophys. Union (AGU) Fall. Meeting, New Orleans, EP21A-1829, 1p. *(Poster Presentation)*
(online at: https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/223716)
(Detrital zircon age distributions suggest major change in provenance at unconformity between E-M Eocene deepwater Belaga- Bawang Fms and fluvio-deltaic Oligo-Miocene Tatau-Nyalau Fms. Unconformity previously interpreted as Late Eocene orogeny, but no evidence for subduction or collision event at this time in Sarawak;

possibly marks late M Eocene plate reorganisation. Borneo main source of Cretaceous (~120-150 Ma peak?) zircons (Schwaner Mts, W Sarawak). Dominant Triassic (~220-240 Ma peak?) zircon age population in Nyalau Fm indicates either provenance from Malay Peninsula tin belt or Indochina (SE Vietnam). (or unidentified Triassic granites on Borneo. Persistent ~1800 Ma age peak; HvG))

Burton-Johnson, A., C.G. Macpherson & R. Hall (2017)- Internal structure and emplacement mechanism of composite plutons: evidence from Mt Kinabalu, Borneo. J. Geol. Soc., London, 174, p. 180-191.
(manuscript online at: http://dro.dur.ac.uk/19338/1/19338.pdf?DDD15+dgl0cm+d700tmt)
(Composite granitic intrusion of Mt Kinabalu in Sabah emplaced in upper-middle crust in Late Miocene over 0.8 Myrs, at contact between ultramafic basement and sedimentary cover. Emplacement during regional NNW-SSE-oriented extension. Six major units, oldest tonalite/granodiorite and two final porphyritic granites. Preferential emplacement of successive units along granite-country rock contact of previous units rather than basement-cover rock contact exploited by initial units)

Carrillat, A., T. Basu, R. Tsaccis, J. Hall, A. Mansor & M. Brewer (2008)- Integrated geological and geophysical analysis by hierarchical classification: combining seismic stratigraphic and AVO attributes. Petroleum Geosciences 14, 4, p. 339-354.
(Seismic attribute interpretation applied to Greater Samarang sub-block, E Baram Delta, offshore Sabah)

Chung, K.W., A.H.A. Rahman & C.W. Sum (2012)- Sedimentology stratigraphy and microfossils of mid-Late Tertiary clastic, Sandakan Formation in NE Borneo. In: ICIPEG 2012Conf., Kuala Lumpur 2012, p.
(Extended Abstract. Sandakan Fm of Segama Group exposed across Sandakan Peninsula, E Sabah. U Miocene part of Segama Group three lithofacies: 1) brackish mudstone, 2) shallow marine sandstone and mudstone and 3) cross-bedded estuarine sandstone)

Chung, K.W., C.W. Sum & A.H.A. Rahman (2015)- Stratigraphic succession and depositional framework of the Sandakan Formation, Sabah. Sains Malaysiana 44, 7, p. 931-940.
(online at: www.ukm.my/jsm/pdf_files/SM-PDF-44-7-2015/03%20Khor%20Wei%20Chung.pdf)
(Sedimentology of Late Miocene Sandakan Fm, exposed across Sandakan Peninsula in E Sabah. Unconformably overlies Garinono Fm. Seven lithofacies in estuary and shallow marine facies)

Chung, W.K. & D. Ghosh (2017)- Growth timing of Southern Field High carbonates, Central Luconia Province. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 491-497.
(Growth timing of studied Miocene carbonate platform at C Luconia Province ~ 4 Myrs, governed by third-order sea-level fluctuations and syndepositional tectonics. First karstification during Burdigalian sea-level drop, over complex horst- graben setting, configured by seafloor expansion of S China Sea, before carbonate initiation. Second major subaerial exposure/ karstification in Langhian. Third subaerial exposure minor karstification. Final drowning in Serravallian without subaerial exposure)

Chung, W.K., D. Menier, S.N.F. Jamaludin & D. Ghosh (2016)- Geomorphology and karstification of the Southern Field High carbonates in Central Luconia Province. Proc. Offshore Technology Conference Asia, Kuala Lumpur 2016, OTC-26650-MS, 16p.
(Miocene carbonate platform development of Southern Field High of C Luconia Province. Initial patchy growth during Burdigalian, followed by build-out and backstepping. Four 3rd order Burdigalian-Serravallian eustatic cycles prior to platform drowning and rapid proto-Borneo clastic influx. With extensive karst development by sub-aerial exposure and re-submergence of carbonate platforms. Karstification mainly along fractures and faults. Final drowning correlated to surge of sea level rise in Serravallian)

Clark, J. (2017)- Neogene tectonics of Northern Borneo: a simple model to explain complex structures within Miocene-Recent deltaic-deepwater sediments both onshore and offshore. In: SEAPEX Exploration Conference 2017, Singapore, Session 7, 26p. *(Extended Abstract + Presentation)*
(All Neogene deformation across N Borneo is result of uplift and erosion of detached, gravity-driven collapse system and shale diapyrism, not product of multi-phase basement tectonics. Deep Regional Unconformity may

not be unconformity, rather diachronous mechanical boundary of different responses of overpressured shale and more competent sandy sediments to gravity-driven collapse)

Clark, J., P. Owen, S. OõBrien, B. Dawe (2017)- Central Luconia carbonate exploration- an update after three more SK408 wildcats, has the story changed? In: SEAPEX Exploration Conference 2017, Singapore, Session 7, 3p. *(Extended Abstract + Presentation)*
(In C Luconia province off Sarawak 60 TCF gas in-place discovered, majority in Late Miocene carbonate buildups play. Many carbonate buildups underfilled, probably due to 'thief beds'. Since 2015 paper two more discoveries made in SK408 PSC, including accumulation with gas column height >900m)

Collins, D.S., H.D. Johnson & P.A. Allison (2015)- Mixed-energy, coupled storm-flood depositional model: application to Miocene successions in the Baram Delta Province, NW Borneo. AAPG Search and Discovery Art. 51133, 33p. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2015/51133collins/ndx_collins.pdf)

Collins, D.S., H.D. Johnson, P.A. Allison & A.R. Damit (2018)- Mixed process, humid-tropical, shoreline-shelf deposition and preservation: Middle Miocene- modern Baram Delta Province, Northwest Borneo. J. Sedimentary Res. 88, 4, p. 399-430.
(Comparision of outcrop analyses of facies and stratigraphic architecture in M Miocene Belait Fm with process-based geomorphological and sedimentological analyses of coastal-deltaic depositional environments in present-day Baram Delta Province)

Collins, D.S., H.D. Johnson, P.A. Allison, P. Guilpain & A.R. Damit (2017)- Coupled ósstorm-floodô depositional model: application to the Miocene- modern Baram Delta Province, north-west Borneo. Sedimentology 64, 5, p. 1203-1235.
(manuscript online at: https://core.ac.uk/download/pdf/77017250.pdf)
(Miocene -Recent Baram Delta Province 9-12 km of coastal-deltaic to shelf sediments over past 15 Myr. Facies analysis of outcrops suggests 'storm-flood' depositional model, with two distinct periods: (1) fair-weather periods dominated by longshore sediment reworking and coastal sand accumulation; and (2) monsoon-driven storm periods characterised by increased wave energy and offshore-directed downwelling storm flow that occur simultaneously with peak fluvial discharge caused by 'storm-floods')

Dedeche, A.R., B. Pierson & A. Hunter (2013)- Outcrop analogs to the offshore Sarawak Miocene fields, how effective can they be? The Subis limestone as an example. Proc. Petroleum Geoscience Conf. Exhib. (PGCE), Kuala Lumpur 2013, 30p. *(Presentation only)*
(online at: https://seacarledu.files.wordpress.com/2016/06/2015_12_10_dedeche_niah_outcrop-analogs.pdf)
(Gunung Subis large flat-topped limestone hill in Sarawak still represents shape of original E Miocene backstepping isolated carbonate platform. Similar to S China Sea/ Luconia carbonate buildups in terms of growth history, but different diagenetic history)

Dedeche, A.R., B. Pierson & A. Hunter (2013)- Growth history and facies evolution of the Subis Limestone- a carbonate platform exposed onshore Borneo Island, Malaysia. Proc. 75th EAGE Conf. Exhib., Carbonate depositional environments and diagenesis, London, 1, TuP15 08, p. 55-57.
(presentation online at: https://seacarledu.files.wordpress.com/2016/06/2015_12_10_dedeche_niah_outcrop-analogs.pdf)
(Subis Limestone onshore Sarawak (with Niah cave) 2 main sequences: (1) U Oligocene lower sequence, deep marine; (2) Lower Miocene upper sequence; reefal, and forming spectacular limestone hill that reflects original carbonate platform. Good analogue to Sarawak offshore carbonate platforms)

Ferdous, N. & A.H. Farazi (2016)- Geochemistry of Tertiary sandstones from southwest Sarawak, Malaysia: implications for provenance and tectonic setting. Acta Geochimica 35, 3, p. 294-308.
(online at: http://english.gyig.cas.cn/pu/papers_CJG/201608/P020160809534849297876.pdf)

(Paleocene- Miocene sandstones from SW Sarawak (Kayan Sst, Plateau Sst, Silantek Fm) sublitharenites, dominantly composed of quartz with minor mica, feldspar and volcanic fragments. Derived from quartz-rich recycled orogenic sources. Felsic igneous source suggested by a low TiO2 compared to CIA, etc.)

Fitch, F.H. (1961)- Oil in Sarawak, 1910-1960. Geol. Survey Department British Territories in Borneo, Annual Report 1960, p. 22-31.
(Summary of Shell commemorative volume of same title. Main event was Miri oilfield discovery by Royal Dutch/Shell subsidiary in 1910. Miri 1 producing mainly from ~1000' depth)

Forrest, J.K. (2009)- Samarang Field- seismic to simulation redevelopment evaluation brings new life to an old oilfield, Offshore Sabah, Malaysia. Int. Petroleum Technology Conf. (IPTC), Doha, IPTC13162, p. 1-16.
(online at: https://www.slb.com/~/media/Files/technical_papers/130/13162.pdf)
(Samarang field 35 year-old oilfield in E part of Baram Delta. Initially developed by Shell in 1975. Petronas currently operating and reducing production decline rates Large rollover anticline, producing from Late Miocene- E Pliocene deltaic- marine sandstones. Not much on geology)

Galin, T. (2013)- Provenance of the deep marine Belaga Formation in the Sibu Zone north of the Lupar Line, Sarawak, Malaysia. M.Sc. Thesis, Royal Holloway, University of London, p. 1-161. *(Unpublished)*

Galin, T., H.T. Breitfeld, R. Hall & I. Sevastjanova (2017)- Provenance of the Cretaceous-Eocene Rajang Group submarine fan, Sarawak, Malaysia from light and heavy mineral assemblages and U-Pb zircon geochronology. Gondwana Research 51, p. 209-233.
(online at: http://searg.rhul.ac.uk/pubs/galin_etal_2017%20Rajang%20provenance%20Sarawak.pdf)
(Rajang Gp clastics in N Borneo thick, large deep-water submarine fan complex. In Sarawak Lupar and Belaga Fms deposited fom latest Cretaceous (Maastrichtian)- late M Eocene. Borneo one of the few places in SE Asia with sediments of this age preserved. Main source regions Schwaner Mts in SW Borneo, and W Borneo/Malay Tin Belt. Heavy mineral assemblages and detrital zircon U-Pb dating show 3 units: (1) Late Cretaceous- E Eocene age zircon-tourmaline-dominated (2) Early to M Eocene zircon-dominated, abundant Cretaceous zircons and few Precambrian zircons derived primarily from Schwaner Mts; (3)M Eocene zircon-tourmaline-dominated. Limited contemporaneous magmatism during Rajang Gp deposition, inconsistent with subduction/ arc setting. Rajang Gp deposited N of shelf edge formed by Lupar Line strike-slip fault)

Gendang, R., A.S. Hashim & D. Johari (2006)- Limestone resources in the Baram Area. Miri Division, North Sarawak, Minerals Geoscience Dept. Malaysia, IMP 3/2005, p. 1-151.

Gerritsen, S., F. Ernst, C. Field, Y. Abdullah, D.N.P.H. Daud & I. Nizkous (2016)- Velocity model building challenges and solutions in a SE Asian basin: beyond reflection tomography. First Break 34, 10, p. 91-97.
(Examples of seismic velocity building technologies to generate accurate models for imaging and depth conversion in offshore Brunei)

Ghaheri, S. & M. Suhaili Bin Ismail (2017)- Review of tectonic evolution of Sabah, Malaysia. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 597-604.
(Sabah structure and tectonic history dominated by Late Oligocene- M Miocene S China Sea seafloor spreading and Sulu Sea subduction. Sabah tectonics started in E Cretaceous. S China Sea subducted under N Borneo margin, forming M Eocene- E Miocene basin sediments. Celebes Sea subducting N-ward under Dent Peninsula in Late Oligocene. Circular basins in E part of Sabah formed in E-M Miocene, thought to be related to SE Sulu Sea Basin rifting. Volcanic arc in Dent Peninsula also formed during this time, due to S-ward subduction of Sulu Sea. In Late Miocene SE Sulu Sea Basin rifting ceased)

Haile, N.S. (1956)- Limestone reserves in the Batu Gading area on the Baram River. British Borneo Geol. Survey Ann. Report, Kuching, p. 30-38.

Haile, N.S. (1957)- New evidence of the age of the Plateau Series in West Sarawak. Annual Report Geological Survey Dept., British Territories in Borneo, 1957, p. 77.
(Brief note on presence of Late Eocene (Tb) larger foraminifera Aktinocyclina and Nummulites at base of Kantu Beds (lowest part of Plateau Series), proving Late Eocene or older age of 'Plateau Series transgression' over Pretertiary- Lower Eocene rocks)

Hall, R. (2015)- Trenches, troughs and unconformities; collision, contraction and extension: South China Sea, Borneo-Palawan and Sulu Sea. Geoscience Techn. Workshop, Tectonic evolution and sedimentation of South China Sea Region, Kota Kinabalu 2015, AAPG Search and Discovery Art. 90236, 3p. *(Extended Abstract)*
(online at: www.searchanddiscovery.com/pdfz/abstracts/pdf/2015/90236apr/abstracts/ndx_hall.pdf.html)
(Mainly summary of Hall (2013))

Hood, F.H. & S. Tahir (2011)- Lithostratigraphy of the Late Neogene sedimentary sequence in Sandakan Peninsula. Proc. 24th Ann. National Geoscience Conference 2011 (NGC2011), Johor Baru, P1-27, p. 107-109. *(Extended Abstract)*
(online at: http://geology.um.edu.my/gsmpublic/NGC2011/NGC2011_Proceedings.pdf)
(Sandakan Peninsula outcrops. Oldest exposed unit is M Miocene Garinono Fm, widely distributed in E Sabah, with lower sequence of sedimentary melange/olistostrome and volcanics-dominated upper sequence, part of M Miocene Cagayan Volcanic Arc. Volcanic facies andesite- dacite and tuff- tuffaceous sandstone. Unconformity between volcanics and base of overlying Sandakan Fm also M Miocene age (Globorotalia fohsi fohsi). Sandakan Fm 12km thick mudstones and cross-bedded sandstones. Common lignite seams, fossilized wood and consolidated quartz pebble lenses)

Jamaludin, S.N.F., M. Pubellier & D. Menier (2017)- Structural restoration of carbonate platform in the southern part of Central Luconia, Malaysia. J. of Earth Science (China) 29, 1, p. 155-168.
(Tectonic events affected growth of Miocene carbonates in C Luconia. Three stages: pre-carbonate (Late Oligocene- E Miocene), syn-carbonate (M-L Miocene) and post-carbonate (Pliocene). Rifting of S China Sea and subduction of proto-South China Sea responsible for pre-carbonate faulting; movement of ancient Baram Line controls strike directions of normal faults in syn-carbonate stage. Subsidence and compaction due to overburden of clastics from prograding deltas main reason for gravitational tectonics in post-carbonate stage)

Janjuhah, H.T., A.M.A. Salim, M.Y. Ali, D.P. Ghosh & Meor H.A. Hassan (2017)- Development of carbonate buildups and reservoir architecture of Miocene carbonate platforms, Central Luconia, Offshore Sarawak, Malaysia. In: SPE/IATMI Asia Pacific Oil Gas Conf. Exhib, Jakarta, SPE-186979-MS, p. 1-12.
(online at: https://umexpert.um.edu.my/file/publication/00006513_154787_66167.pdf)

Janjuhah, H.T., A.M.A. Salim & D.P. Ghosh (2017)- Sedimentology and reservoir geometry of the Miocene carbonate deposits in Central Luconia, Offshore, Sarawak, Malaysia. J. Applied Sciences 17, 4, p. 153-170.
(online at: http://scialert.net/qredirect.php?doi=jas.2017.153.170&linkid=pdf)
(Eight carbonate facies in M-L Miocene reefal buildups of offshore C Luconia province))

Janjuhah, H.T., A.M.A. Salim, D.P. Ghosh & A. Wahid (2017)- Diagenetic process and their effect on reservoir quality in Miocene carbonate reservoir, offshore, Sarawak, Malaysia. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 545-558.

Janjuhah, H.T., J.A.G. Vintaned, A.M.A. Salim, I. Faye, M.M. Shah & D.P. Ghosh (2017)- Microfacies and depositional environments of Miocene isolated carbonate platforms from Central Luconia, offshore Sarawak, Malaysia. Acta Geologica Sinica (English Ed.) 91, 5, p. 1778-1796.
(13 microfacies identified in core samples from well in C Luconia M-U Miocene reef complex)

Johnston, J.C. & P.J. Walls (1975)- Geology of the Telupid area, Sabah. Geol. Survey Malaysia, Annual Rept. for 1973, p. 213-220.
(Incl. glaucophane-bearing metabasalts from Telupid area, possibly part of Chert-Spilite Fm of Sabah)

Jong, J. & S. Barker (2015)- Sequence stratigraphy, deformation history and gross deposition environmental study of deepwater Block 2F. In: Asia Petroleum Geoscience Conf. Exhib. (APGCE 2015), Kuala Lumpur, p. 323-327.
(Block 2F in Bunguran Trough, deepwater Rajang Delta area, off Sarawak in S China Sea. Trough evolved as tectonically-induced sag basin. Oldest known rocks shelfal clastics of E Miocene Cycles I/II, now buried >6000m. Late Miocene Cycle V ~3000m of slope and toe-of-slope deposits, overlain by Plio-Pleistocene sediments with turbiditic fairways forming main objectives in current exploration campaign)

Jong, J., S. Barker, F.L. Kessler & T.Q. Tan (2017)- Basin with multiple sediment sources: tectonic evolution, stratigraphic record and preservation potential of the Bunguran Trough, South China Sea. Berita Sedimentologi 38, p. 5-48.
(online at: https://drive.google.com/file/d/0B35lLH-Cki2NV01LNEVCcGl2Z2M/view)
(Deepwater Bunguran Trough off Sarawak is intra-continental pull-apart basin in deepwater Rajang/West Luconia Delta province. Oldest stratigraphy shelf clastic deposits Late Oligocene Cycle I (= Gabus Fm of Natuna Basin), now buried to >7000m. Sediments sourced from: (1) Natuna Arch in Oligocene- E Miocene and Late Pliocene- Pleistocene (feldspatic and quartz-rich turbidites); (2) Rajang/ W Luconia Delta (Neogene) and (3) minor contributions from Dangerous Grounds/ N Luconia and C Luconia Platform areas to N and E)

Jong, J., H.A.B.M. Idris, P. Barber, F.L. Kessler, Tran Q. Tan & R. Uchimura (2017)- Exploration history and petroleum systems of the onshore Baram Delta, northern Sarawak, Malaysia. Bull. Geol. Soc. Malaysia 63 (Geol. Soc. Malaysia 50th Anniversary Issue 1), p. 117-143.
(online at: www.gsm.org.my/products/702001-101705-PDF.pdf)
(Review of onshore Baram Delta province in N Sarawak, with M Eocene- Holocene succession and 1910 Miri oilfield discovery. Three episodes of deformation: (1) Late Cretaceous- Eocene (79.5-36 Ma) block faulting, (2) Late Oligocene- M Miocene (30-20.5 Ma) wrench movement and folding; (3) M Pliocene (4 Ma)- Holocene uplift and compressional folding. Two major anticlinal trends: Engkabang-Karap in S, Miri-Asam Paya in N. Two distinct petroleum systems: (1) overmature gas in S, sourced from deep Eo-Oligocene basinal shales with reworked terrestrial organic matter. Earlier oil charge probably in Oligocene before late basin reversal; (2) oil and gas system from peak-mature M-L Miocene carbonaceous shales and coals in synclines, charging inversion compressional structures along N Miri-Asam Paya anticlinal trend, and Miocene at Engkabang-Karap Anticline. Expulsion and charge started in Late Miocene and is continuing to present-day. Exploration results of Eo-Oligocene carbonate play disappointing. Onshore Baram Delta still contains attractive plays)

Jong, J., K.L. Kessler, S. Noon & T.Q. Tan (2016)- Structural development, depositional model and petroleum system of Paleogene carbonate of the Engkabang-Karap Anticline, onshore Sarawak. Berita Sedimentologi 34, p. 5-25.
(online at: www.iagi.or.id/fosi/files/2016/01/BS34-01142016_FINAL.pdf)
(400 km2 large Eocene- Oligocene carbonate body of Engkabang-Karap Anticline, onshore Sarawak (equivalent of Melinau Lst). Tight reservoir facies encountered in two Engkabang wells)

Jong, J., D.A. Nuraini & M.A. Khamis (2014)- Basin modeling study of deepwater Block R (DWR) offshore Sabah and its correlation with surface geochemical analyses. Int. Petroleum Technology Conference (IPTC), Kuala Lumpur, IPTC-18186-MS, p. 1-11.

Kessler, F.L. & J. Jong (2015)- Incision of rivers in Pleistocene gravel and conglomeratic terraces: further circumstantial evidence for the uplift of Borneo during the Neogene and Quaternary. Bull. Geol. Soc. Malaysia 61, p. 49-57.
(online at: www.gsm.org.my/products/702001-101676-PDF.pdf)
(Incised Pleistocene gravel beds and conglomerates common feature of Baram, Limbang and Temburong drainage systems in NW Sarawak and Brunei. Incision from 9-76 m likely result of strong precipitation, combined with ongoing uplift. Conglomerates almost exclusively from Lower Miocene Meligan Sst, and deposited in nested fluvial terraces. Uplift may be ongoing present day)

Kessler, F.L. & J. Jong (2016)- Northwest Sarawak: a complete geologic profile from the Lower Miocene to the Pliocene covering the Upper Setap Shale, Lambir and Tukau Formations. Warta Geologi 41, 3-4, p. 45-51.
(online at: https://gsmpubl.files.wordpress.com/2016/03/warta41_3-4.pdf)
(~1000m thick outcrop section along 3-4 km of new Miri- Long Lama road (NW Sarawak), with two major regional unconformities: (1) M Miocene Unconformity (MMU) between U Setap Shale and Lambir Fm, and (2) Mio-Pliocene angular unconformity between folded Lambir rocks and unfolded Tukau Fm)

Kessler, F.L. & J. Jong (2016)- Paleogeography and carbonate facies evolution in NW Sarawak from the Late Eocene to the Middle Miocene. Warta Geologi 42, 1-2, p. 1-9.
(online at: https://gsmpubl.files.wordpress.com/2016/08/warta42_1_2.pdf)
(After Paleocene-E Eocene Sarawak Orogeny (~40-36 Ma) shallow shelf developed in NW Sarawak, which included Luconia/Tinjar terranes and rimmed recently emerged Rajang Gp hinterlands. Late Eocene benthic foraminiferal limestone banks and ramps developed on sheltered shoals. By E-M Oligocene carbonate deposition slowed. Second episode of carbonate deposition in E-M Miocene, with small coral-algal bioherms)

Kessler, F.L. & J. Jong (2017)- Examples of fault architecture and clay gouging in Neogene clastics of the Miri area, Sarawak. Warta Geologi 43, 1, p. 15-20.
(online at: www.gsm.org.my/products/702001-101701-PDF.pdf)
(Good correlation between normal fault throw and fault gouge thickness)

Kessler, F.L. & J. Jong (2017)- Carbonate banks and ramps on the northern shore of Palaeogene and Early Neogene Borneo: observations and implications on stratigraphy and tectonic evolution. Bull. Geol. Soc. Malaysia 63 (Geol. Soc. Malaysia 50th Anniversary Issue 1), p. 1-26.
(online at: www.gsm.org.my/products/702001-101710-PDF.pdf)
(In NW Sarawak two independent carbonate systems: Late Eocene-Oligocene foraminiferal limestone banks and E-M Miocene coral-algal buildups. No outcrop or well shows continuity of carbonate deposits from Late Eocene to M Miocene. Eo-Oligocene carbonate system formed during deepening of NW Borneo foredeep after Paleocene- E Eocene Sarawak Orogeny; E-M Miocene carbonates originated as foredeep shallowed and eventually disappeared with establishment of shallow, clastic shelf)

Kessler, F.L. & J. Jong (2017)- The roles and implications of several prominent unconformities in Neogene sediments of the greater Miri area, NW Sarawak. Warta Geologi 43, 4, p. 1ï 8.
(Neogene sequence of greater Miri area in NW Sarawak with up to four Neogene unconformities: well-established Mid-Miocene Unconformity (MMU; ~15.5 Ma?) and less well-defined Shallow Regional Unconformity (SRU; ~10 Ma), Intra-Pliocene Unconformity (IPU; 3.6 Ma) and Lower Pleistocene Unconformity (LPU; ~1.6-1.8 Ma). Timings yet-to-be fully established)

Kessler, F.L. & J. Jong (2017)- A study of Neogene sedimentary outcrops of the Greater Miri area- can clay gouging be calibrated in outcrops and shallow subsurface boreholes? Berita Sedimentologi 39, p. 5-24.
(online at: www.iagi.or.id/fosi/files/2017/12/FOSI_BeritaSedimentologi_No39_Dec2017.pdf)
(Fault zones with clay gouge in outcrops and shallow boreholes of Late Miocene- E Pliocene deltaic clastics show no fault sealing capability. Probably due to weathering)

Kessler, F.L. & J. Jong (2018)- Hydrocarbon retention in clastic reservoirs of NW Borneo- examples of hydrocarbon trap, reservoir, seal and implications on hydrocarbon column length. Berita Sedimentologi 40, p. 6-44.
(online at: http://www.iagi.or.id/fosi/berita-sedimentologi-no-40.html)
(Hydrocarbon column length offshore Sarawak, Brunei and NW Sabah mainly controlled by effective and laterally continuous top seal. Seal capacity affected by mineralogy, grain size, diagenesis and lateral continuity. Hydrocarbon columns tend to be longer in clay-prone environments, like outer shelf and deepwater turbidite environments (av. ~250m), and shorter in sand rich shallow marine- deltaic settings (av. 30m))

Khan, A.A., W.H. Abdullah, Meor H. Hassan & K. Iskandar (2017)- Tectonics and sedimentation of SW Sarawak basin, Malaysia, NW Borneo. J. Geol. Soc. India 89, 2, p. 197-208.

(SW Sarawak basin S-ward sloping basement characterized by passive margin tectonics: Triassic extension, Cretaceous transpression and Oligo-Miocene compression. Deeper basin zone between Schwaner Mts block to S and SW Sarawak basin to N. E-W trending Cretaceous carbonate platform in SW Sarawak basin signify shelf zone where shallow marine sedimentation progressed during Cretaceous transpression. Late Cretaceous- E Eocene Kayan Sst unconformable on Cretaceous Pedawan Fm. NW-SE trending Oligo-Miocene continental volcanic arc. Back-arc extension prevailed in Oligo-Miocene. SW Sarawak basin two sub-basins (Senibong in W, Kuching in E), with wide range of transpressive features. Sri Aman marginal sea-basin characterized by oceanic assemblages, ophiolite, serpentinite and pillow basalt)

Kirk, H.J.C. (1966)- The mineralogy of Pinanduan copper deposit, Sabah, Malaysia. Geol. Survey Malaysia, Borneo Region, Annual Report 1965, p. 196-204.

Kivior, I., S. Markham, S. Damte, S. Randle, M. Shimada, J. Jong, H. Kusaka & TranN Quoc Tan (2011)- Mapping regional sedimentary horizons in the onshore Baram Delta, Sarawak, from magnetic and gravity data using Energy Spectral Analysis. In: Proc. Petroleum Geology Conference and Exhibition (PGCE), Kuala Lumpur, Malaysia, p.

Kocsis, L., A. Briguglio, A. Roslim, H. Razak, S. Coric & G. Frijia (2018)- Stratigraphy and age estimate of Neogene shallow marine fossiliferous deposits in Brunei Darussalam (Ambug Hill, Tutong district). J. Asian Earth Sci. 158, p. 200-209.
(Outcrops of sandstones-clays at Ambug Hill in NE Brunei with layers rich in marine fossils. Calcareous nannoplankton of Late Tortonian- E Messinian (NN11) age, confirmed by Sr-isotope age from bivalves (8.3- 6.2 Ma). Overlain by emersion surface, possibly tied to Me1 (7.25 My) or Me2 (5.73 My) sequence boundary)

Legrand, X., S. Sherkati & M.L. Lee (2015)- Evolution of deformation-sedimentation interaction in NW Offshore Sabah: implication for hydrocarbon exploration. Asia Petrol. Geosc. Conf. Exhib. (APGCE 2015), Kuala Lumpur, 4p. *(Extended Abstract)*
(Offshore Sabah subjected to tectonic and gravity deformation since E Tertiary. E Miocene event led to crustal overthickening and uplift of former deep marine thick shale (Setap Fm) to shallow water environment. Relief prepared initial conditionsfor delta-related sequence in M Miocene time. Differential loading triggered mobile shale, forming mini-basins and shale ridges. Late Miocene more shale-prone prograding system. Gravity faults with rollovers and associated outboard, Late Miocene- Pliocene toe-thrusts, linked along shallow detachment. Further offshore imbricate thrust system rooted in deeper detachment)

Leong, K.M. (2016)- Discussion on omission of Sabah Pre-Cretaceous geology and geochronology data in Tate (2002), Balaguru et al. (2003), Lee et al. (2004) and Wan Nursaiedah Wan Ismail et al. (2014). Warta Geologi 42, 1-2, p. 10-11.
(online at: https://gsmpubl.files.wordpress.com/2016/08/warta42_1_2.pdf)
(Oldest fossiliferous rocks of Sabah are E Cretaceous limestone and chert, but older metamorphic rocks and granite and tonalite (minimum age E Jurassic or Triassic) also present)

Leong, K.M. (2017)- Review of 50-years (1966-2016) debate on age of Sabah crystalline basement granitic rocks: are the granitic rocks in Upper Segama Sabah fragments of supercontinent Pangaea? Proc. 30th Nat. Geosc. Conf. Exhib. (NGC 2017), Kuala Lumpur, DRG29-116, Warta Geologi 43, 3, p. 223-224. *(Extended Abstract)*
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_032.pdf)
(Sabah granites often viewed in literature as Cretaceous in age and related to ophiolites, but radiometric ages of 210 and 185 Ma suggest it predates ophiolites and more likely represents Pre-Cretaceous continental basement that originated from continental margin of E Asia during of Proto-South China Sea Basin)

Lunt, P. & M. Madon (2017)- A review of the Sarawak cycles: history and modern application. Bull. Geol. Soc. Malaysia 63 (Geol. Soc. Malaysia 50th Anniversary Issue 1), p. 77-101.
(online at: www.gsm.org.my/products/702001-101707-PDF.pdf)

(Major review of Late Eocene-Pleistocene depositional cycles I-VIII, used by Shell since 1960's for Sarawak/ Brunei Tertiary. Cycles originally defined by initial transgression changing to regression, and probably reflect interplays between tectonic and eustatic events. Initial (unpublished) definitions updated through time, but most biostrat support data unpublished. Cycles I-III, seem to be linked to regional extension and subsidence. Cycle I-II boundary close to Oligocene- Miocene boundary, coinciding with Top Crocker Unconformity in Sabah and onset of seafloor spreading in W South China Sea. Base Cycle IV transgression at ~15.5 Ma called 'break-up unconformity' by Hutchison (2004), based on strongly rifted topography called 'M Miocene Unconformity' (MMU); followed by accelerated sediment supply. Base Cycle V at ~12-13 Ma. Etc.)

Lunt, P. & M. Madon (2017)- Onshore to offshore correlation of northern Borneo; a regional perspective. Bull. Geol. Soc. Malaysia 64 (Geol. Soc. Malaysia 50th Anniversary Issue 2), p. 101-122.
(online at: www.gsm.org.my/products/702001-101714-PDF.pdf)
(Review of Oligocene - Pleistocene stratigraphy of N Borneo, with emphasis on dating regional unconformities: Top Crocker Unconformity (TCU; Oligo-Miocene boundary, ~23 Ma); Deep Regional Unconformity (DRU, late M Miocene, ~12 Ma; 'Sabah Orogeny' (around E-M Miocene boundary, with uplift in C Borneo and accelerated progradation of deltic deposits to N))

Madden, R.H.C., M.E.J. Wilson, M. Mihaljevic, J.M. Pandolfi & K. Welsh (2017)- Unravelling the depositional origins and diagenetic alteration of carbonate breccias. Sedimentary Geology 357, p. 33-52.
(Batu Gading Limestone isolated outcrops along Baram River, ~80 km SE of Miri, Sarawak, and part of Melinau Limestone Fm. Unconformably overlies Cretaceous turbiditic Kelalan Fm. Basal transgressive sequence 40m thick with Late Eocene larger foraminifera Pellatispira, Discocyclina and Nummulites (probably deepening-upward series), overlain by 10m thick limestone breccia with mixed clasts of Late Eocene and Late Oligocene age (Te1-4; with Heterostegina borneensis and Miogypsinoides), overlain by deep marine Miocene beds. Breccia formation probably in submarine slope setting)

Majid, M.F.A., M.S. Ismail, A.H.A. Rahman & M.A. Mohamed (2017)- Facies distribution and petrophysical properties of shoreface- offshore transition environment in Sandakan Formation, NE Sabah Basin. In: Proc. 5th Int. AeroEarth Conf., Kuta 2017, IOP Conf. Series, Earth Environm. Science 88, 012023, p. 1-8.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/88/1/012023/pdf)
(Outcrop study in Sandakan, NE Sabah, of Miocene shallow marine sandstone of Sandakan Fm. Shoreface to offshore transitional environments, with common Hummocky Cross Stratified sandstone)

Mansor, H.E., J.Asis & Meor H.A. Hassan (2017)- Oligocene-Miocene large benthic foraminifera from the Tajau Sandstone Member, Kudat Formation, Sabah. Proc. 30th Nat. Geosc. Conf. Exhib. (NGC 2017), Kuala Lumpur, DRG29-112, Warta Geologi 43, 3, p. 220-221. *(Extended Abstract)*
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_032.pdf)
(Tajau Sst Member of Kudat Peninsula, Sabah, gently folded thick pebbly coarse sandstones with Late Oligocene (Te1-4) larger foram assemblage (Heterostegina borneensis, Eulepidina, etc.))

Mathew, M.J. (2016)- Geomorphology and morphotectonic analysis of North Borneo. Doct. Thesis, Universite de Bretagne Loire, p. 1-140.
(online at: www.theses.fr/2016LORIS408.pdf)
(Collection of papers on geomorphology and morphotectonic analysis of Rajang and Baram drainage basins of Sarawak. Characterized by high denudation rates since Miocene. At end of Miocene rapid uplift of possibly whole Interior Highlands and coastal areas of Sarawak. Enhanced post 5 Ma erosion rates led to rapid progradation of deltas and Plio-Quaternary sediments that reach thicknesses of >6 km)

McGiveron, S. & J. Jong (2016)- Morphological description of a mud volcano caldera from deepwater Sabah- general implications for hydrocarbon exploration. Warta Geologi 42, 3-4, p. 69-79.
(online at: www.gsm.org.my/products/702001-101686-PDF.pdf)
(Seismic profiles and maps description of 500m diameter mud volcano caldera at 1100m water depth offshore Sabah. Mud volcano overlies toe-thrust anticline and has well-defined caldera)

Menier, D., M. Mathew, M. Pubellier, F. Sapin, B. Delcaillau, N. Siddiqui, M. Ramkumar & M. Santosh (2017)- Landscape response to progressive tectonic and climatic forcing in NW Borneo: implications for geological and geomorphic controls on flood hazard. Nature Scientific Reports 7, 457, p. 1-18.
(online at: https://www.nature.com/articles/s41598-017-00620-y.pdf)
(On consequences of uplift and orographic-precipitation on evolution of orogens and landscapes of NW Sabah)

Meor, H.Hassan, H.D. Johnson, P.A. Allison & Wan H. Abdullah (2017)- Sedimentology and stratigraphic architecture of a Miocene retrogradational, tide-dominated delta system: Balingian Province, offshore Sarawak, Malaysia. In: G.J. Hampson et al. (eds.) Sedimentology of paralic reservoirs: recent advances, Geol. Soc., London, Spec. Publ. 444, p. 215-250.
(Balingian Province of NW Borneo with oil production mainly from Early Miocene (cycle II) coastal plain deposits. Four types of vertical facies successions. Cycle II tide-dominated delta system, partly analogous to modern Rajang Delta and Lupar Embayment of S Sarawak. Fluvio-tidal channel and tide-dominated delta successions represent periods of progradation; wave-dominated shoreface and barrier lagoon successions during transgression and/or delta lobe abandonment. Several high-order sequences stacked into two lower-order, ~100-300m thick fining-upwards megasequences)

Mohamed, A., A.H. Abd Rahman and M. S. Ismail (2015)- Sedimentary facies of the West Crocker Formation North Kota Kinabalu-Tuaran Area, Sabah, Malaysia. Journal of Physics, Conference Series 660, 012004, IOP Publishing, p. 1-6.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/30/1/012004/pdf)
(Sedimentology study of new outcrops in W Crocker Fm in Sabah suggests deposition in sand-rich submarine fan setting, with inner fan channel-levee complex, mid-fan channelised lobes, and outer fan facies)

Morley, C.K. & M. Burhannudinnur (1997)- Anatomy of growth fault zones in poorly lithified sandstones and shales: implications for reservoir studies and seismic interpretation: part 2, Seismic reflection geometries. Petroleum Geoscience 3, 3, p. 225-231.
(Seismic reflection data across growth faults off NW Borneo show many of small-scale fault geometries recognized in outcrop can also be interpreted on seismic data. Some fault zones single fault plane; others up to 1km wide bundles of overlapping fault planes connected by hard and soft linkage geometries)

Mueller, F.P. (1915)- Tektite from British Borneo. Geol. Magazine, ser. 6, 2, 5, p. 206-211.
(Four black lustrous tektites 1.5-3 cm in diameter, found in 1913 near Tutong Station, SW of Brunei town, washed out of white quartz sand 1-2' below surface, in terrace deposit ~40' above sea level. With first map of distribution of billitonite/ tektite of Malaysia- Indonesian region?)

Murtaza, M., A.H.A. Rahman, C.W. Sum & Z. Konjing (2018)- Facies associations, depositional environments and stratigraphic framework of the Early Miocene-Pleistocene successions of the Mukah-Balingian area, Sarawak, Malaysia. J. Asian Earth Sci. 152, p. 23-38.
(Outcrop sections along Mukah-Selangau road dominated by fluvial, floodplain and estuarine related coal-bearing deposits.(E-M Miocene Balingian, Late Miocene Begrih and M Pliocene- Pleistocene Liang Fms). Multiple regressive-transgressive cycles, with sediments derived from uplifted Penian high and Rajang Gp)

Mustafar, M.A., W.J.F. Simons, K.M. Omar & B.A.C. Ambrosius (2014)- Monitoring of local deformations in North Borneo. In: 25th Congress Int. Federation Surveyors (FIG), Kuala Lumpur, TS11, 12p.
(online at: www.fig.net/resources/proceedings/fig_proceedings/fig2014/papers/ts11a/)

Mustafar, M.A., W.J.F. Simons, F. Tongkul, C. Satirapod, K.M. Omar & P.N.A.M. Visser (2017)- Quantifying deformation in North Borneo with GPS. J. Geodesy, p. 1-19.
(online at: https://link.springer.com/content/pdf/10.1007%2Fs00190-017-1024-z.pdf)
(GPS survey results indicates extension along coastal regions of Sarawak and Brunei (5-9 mm/ year W-directed movement) but strain rate tensors in Sabah reveal only insignificant extension, while compression occurs throughout NW Borneo. CW (microblock) rotation of N part of North Borneo. Low subsidence rates along W coast of Sabah, but inconsistent trends between Crocker and Trusmadi Mts. Unable to confirm hypothesis of

gravity sliding as main driving force. Ongoing Sundaland- Philippine Sea plate convergence may still play role in present-day deformation)

Mustapha, K.A., W.H. Abdullah, Z. Konjing, S.S. Gee & A.M. Koraini (2017)- Organic geochemistry and palynology of coals and coal-bearing mangrove sediments of the Neogene Sandakan Formation, Northeast Sabah, Malaysia. Catena 158, p. 30-45.
(Coals in mangrove sediments of Sandakan Fm of Sandakan Peninsulawith vitrinite reflectance (Ro) 0.31-0.49%, indicating immature- very early mature for hydrocarbon generation. Dominated by Type III kerogen, with some Type II/III. Presence of dinoflagellate cysts and offshore mudstones consistent with rel. high sulphur content from marine inundations. Palynomorphs with abundant mangrove and freshwater pollen Presence of Florschuetzia levipoli, F. meridionalis and F. semilobata suggests E-M Miocene age)

Nagarajan, R., J.S. Armstrong-Altrin, F.L. Kessler & J. Jong (2017)- Petrological and geochemical constraints on provenance, paleoweathering, and tectonic setting of clastic sediments from the Neogene Lambir and Sibuti Formations, Northwest Borneo. In: R. Mazumder (ed.) Sediment provenance: influences on compositional change from source to sink, Chapter 7, Elsevier, Amsterdam, p.123-153.
(Petrography and geochemistry suggest Miocene Lambir and Sibuti Fms clastics derived from recycled sedimentary/metasedimentary sources in an evolving passive-to-active continental margin setting)

Nagarajan, R., J. Jong & F.L. Kessler (2017)- Provenance of the Neogene sedimentary rocks from the Tukau and Belait Formations, Northeastern Borneo by mineralogy and geochemistry. Warta Geologi 43, 2, p. 10-16.
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_02.pdf)
(Miocene quartz-rich clastics of Tukau and Belait Fms sourced from area comparable to Rajang-Crocker mountain belt in Borneo hinterland. Tukau Fm supplied from moderately-weathered continental hinterland composed of acidic igneous and/or metamorphic lithologies, and older sediments. Miocene Belait Fm reflects stronger weathering and significant input of mafic minerals (i.e. biotite, Mg-chromites))

Nagarajan, R., P.D. Roy, F.L. Kessler, J. Jong, V. Dayong & M.P. Jonathan (2017)- An integrated study of geochemistry and mineralogy of the Upper Tukau Formation, Borneo Island (East Malaysia): sediment provenance, depositional setting and tectonic implications. J. Asian Earth Sci. 143, p. 77-94.
(Late Miocene or younger ((~10–2.6 Ma) Tukau Fm of Sarawak formation unconfomably overlies M Miocene Lambir Fm. Clastics highly mature and recycled from weathered sedimentary- metasedimentary sources, with granitoids and mafic-ultramafic rocks. Cretaceous and Triassic-age detrital zircons from felsic rock, tie to granitoids of Schwaner Mts (Kalimantan) and Tin Belt granites, but probably recycled via Rajang Group, uplifted and eroded in Neogene. Chromian spinels indicate minor influence of mafic- ultramafic rocks. Deposited in passive margin with passive collisional and rift settings)

Nordin, A.F. H. Jamil, M.N. Isa, A. Mohamed, S.H. Tahir, B. Musta, R. Forsberg, A. Olesen et al. (2016)- Geological mapping of Sabah, Malaysia, using airborne gravity survey. Borneo Science 37, 2, p. 14-27.
(online at: http://borneoscience.ums.edu.my/wp-content/uploads/2016/09/)
(Airborne gravity survey database for land and marine areas compiled to update geological map of Sabah)

Ogawa, K. & J. Jong (2017)- A unique Post-MMU hydrocarbon charge system in the Bunguran Trough: a case study from deepwater Sarawak and implications for petroleum exploration. In: SEAPEX Exploration Conference 2017, Singapore, Session 7, 3p. *(Extended Abstract)*
(Bunguran Trough intra-continental basin in deepwater setting of Rajang Delta, off Sarawak. Characterised by deepwater clastic deposition of post-M Miocene Unconformity sediments. Pre-MMU sediments now buried to >6000m One potential source rock intervals currently mature for hydrocarbon generation in post-MMU sequences is Lower Pliocene section)

Ooi Phey Chee, M. Poppelreiter, D. Ghosh & R. Lazar (2017)- Study of Central Luconia Miocene carbonate buildup: integration of geological, modern carbonates and 3D seismic characterization Proc. 30th Nat. Geosc. Conf. Exhib. (NGC 2017), Kuala Lumpur, PDPT16-107, Warta Geologi 43, 3, p. 290-291. *(Extended Abstract)*
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_032.pdf)

(Brief review of geologic model of 3x5km M-L Miocene carbonate buildup of TX Field, 170km N of Bintulu, offshore Sarawak)

Ovinda & J.J. Lambiase (2017)- Lateral facies and permeability changes in upper shoreface sandstones, Berakas Syncline, Brunei Darussalam. Indonesian J. Geoscience 4, 1, p. 11-20.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/333/228)
(Facies and permeability changes in outcrops of M Miocene Belait Fm in Berakas Syncline, Brunei)

Pour, A.B. (2014)- Remote sensing aspects of Bau Gold District, Serawak, Malaysia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 393-413.
(Lithological-structural mapping with remote sensing of mineralized zones in Bau gold field in W Sarawak with Carlin style gold deposits. Late Triassic Serian Volcanics overlain by Late Jurassic- Cretaceous sediments. E Jurassic deformation event, with 190 Ma Jagoi granodiorite. M Miocene Bau Trend porphyritic granodiorites with porphyry-copper style mineralization, skarn, limestone polymetallic replacement, epithermal precious metal, disseminated gold, and Ba-Hg deposits)

Rahim, A.R., Z. Konjing, J. Asis, N. Jalil, A.J. Muhamad, N. Ibrahim, A.M. Koraini, R.C. Kob, H. Mazlan & H.D. Tjia (2017)- Tectonostratigraphic terranes of Kudat Peninsula, Sabah. Bull. Geol. Soc. Malaysia 64 (Geol. Soc. Malaysia 50th Anniversary Issue 2), p. 123-139.
(online at: www.gsm.org.my/products/702001-101713-PDF.pdf)
(Four geological terranes make up Kudat Peninsula: (1) N Sabah exotic Terrane (Eocene sandstones with M-L Eocene Suang Pai Lst with Discocyclina, Pellatispira, etc.), separated by (2) Kudat Fault Zone (up to 6 km wide horst with E Cretaceous ophiolite and oceanic crust) from (3) Slump Terrane (wide area from Sikuati to Kota Marudu, consisting of mainly lower slope turbidites with slump intervals). S-most terrane is (4) Mengaris Duplex (latest Eocene to Oligocene West Crocker Fm turbidites)

Rahman, Z.A. (1999)- Structural pattern of the Crocker Formation in southern part of Beaufort area, Sabah. Borneo Science 6, p. 11-20.
(online at: http://borneoscience.ums.edu.my/wp-content/uploads/2011/08/2.-Structural-Pattern-Of-The-Crocker-Formation-In-Southern-Part-Of-Beaufort-Area-Sabah.pdf)
(Oligocene- E Miocene deep marine Crocker Fm in SW Sabah deformed by M Miocene faulting-folding, under NW-SE compression)

Ramkumar, M., M. Santosh, R. Nagarajan, S.S. Li, M. Mathew, D. Menier, N. Siddiqui, J. Rai, A. Sharma et al. (2017)- Late Middle Miocene volcanism in Northwest Borneo, Southeast Asia: implications for tectonics, paleoclimate and stratigraphic marker. Palaeogeogr. Palaeoclim. Palaeoecology 490, p. 141-162.
(Zircon dating of 6cm thick tephra layer in thick coal near Mukah, Sarawak, suggests latest M Miocene volcanic event (main zircon age group ~11.4- 11.8 Ma). Also older inherited zircons)

Schlee, D., P.H. Chan, J. Dorani & F.K. Voong (1992)- Riesenbernsteine in Sarawak, Nord-Borneo. Lapis 17, 9, p. 13-23.
('Giant amber from Sarawak'. Large (up to 3.5m long, >10cm thick)slabs of fossil resin (amber), associated with coaly beds in Miocene Nyala Fm)

Siddiqui, N.A., A. Hadi Abd Rahman, C.W. Sum & M. Murtaza (2017)- Sandstone facies reservoir properties and 2D-connectivity of siliciclastic Miri Formation, Borneo. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 581-595.

Siddiqui, N.A., M. Ramkumar, A.H.A. Rahman, M.J. Mathew, M. Santosh, C.W. Sum & D.Menier (2018)- High resolution facies architecture and digital outcrop modeling of the Sandakan Formation sandstone reservoir, Borneo: implications for reservoir characterization and flow simulation. Geoscience Frontiers, p. *(in press)*
(online at: www.sciencedirect.com/science/article/pii/S1674987118301087)

(Digital imaging and reservoir quality analysis of 750m outcrop of Late Miocene or younger, shallow marine-deltaic Sandakan Fm, Sabah)

Sidek, A, U. Hamzah & R. Junin (2015)- Seismic facies analysis and structural interpretation of deepwater NW Sabah. Jurnal Teknologi (UTM, Sciences & Engineering) 75, 1, p. 115-125.
(online at: www.jurnalteknologi.utm.my/index.php/jurnalteknologi/article/view/3677/3373)

Sidek, A., U. Hamzah, A.R. Samsudin, M.H. Arifin & R. Junin (2015)- Deep crustal profile across NW Sabah Basin: integrated potential field data and seismic reflection. ARPN J. Engineering Applied Sciences 11, 3, p. 1401-1411.
(online at: www.arpnjournals.org/jeas/research_papers/rp_2016/jeas_0216_3513.pdf)
(Crustal profile model across Deepwater Fold and Thrust Belt, Sabah Trough, Dangerous Grounds Province and Thrust Sheet Zone. Formation of half-grabens and normal faults in Dangerous Grounds which subducted beneath Sabah Trough. Moho depth (top upper mantle) range 26-33km)

Sorkhabi, R. (2010)- History of oil- Miri 1910. GeoExpro 7, 2, p. 44-49.
(1910 oil discovery in U Miocene Miri Fm of N Sarawak by Anglo-Saxon Petroleum (Royal Dutch/Shell Group) in area of oil seeps. Peak production reached 15,211 BOPD in 1929. Total production by end-1940 ~7 MBO; 597 wells had been drilled in the field. Field closed in 1972)

Sulaiman, N.B. (2017)- Controls on the geometry and evolution of deep-water fold thrust belt of the NW Borneo. Ph.D. Thesis University of Leeds, p. 1-163.
(online at: http://etheses.whiterose.ac.uk/18877/1/Sulaiman_NB_%20Earth%20and%20Environment_PhD_2017.pdf)
(On the offshore NW Sabah gravity-driven extensional-compressional system. Pulses of M Miocene- Recent proximal uplift started in E (now onshore) part of NW Borneo and increased slope elevation and sediment supply to basin. Shortening resulted in response to gravity spreading of uplifted continental interior)

Syazwani, N., B.J. Pierson & A.W. Hunter (2013)- Diagenetic responses to sea level changes on Pleistocene-Holocene carbonates in the Celebes Sea, East Sabah, Malaysia. Proc. 75th EAGE Conf. Exhib., Carbonate depositional environments and diagenesis, London, 1, TuP15 07, p. 52-54.
(On diagenesis of elevated Quaternary reef limestone in Celebes Sea, E of Sabah)

Tjia, H.D. (2015)- Sole markings of extraordinary size and variety in Crocker sandstones of Sabah. Bull. Geol. Soc. Malaysia 61, p. 11-21.
(online at: www.gsm.org.my/products/702001-101680-PDF.pdf)
(Eocene- E Miocene Crocker Fm of Sabah with large sole markings near Kaung Village on mid-slope of Mount Kinabalu, incl. >10m long groove casts. Effects of turbulent flow. Nereites-Zoophycos ichnofacies with Paleodictyon confirm bathyal-abyssal depth of deposition. In other localities of Crocker Fm in Sabah, paleocurrents ran N-ward, exception near Kaung Village where S-directed)

Tongkul, F. (2017)- Active tectonics in Sabah- seismicity and active faults. Bull. Geol. Soc. Malaysia 64 (Geol. Soc. Malaysia 50th Anniversary Issue 2), p. 27-36.
(online at: http://www.gsm.org.my/products/702001-101721-PDF.pdf)
(Sabah under WNW-ESE compressive stress due W-ward movements of Philippine-Pacific plate against SE-moving Eurasian plate, causing NE-SW trending active thrust faults and NW-SE trending strike-slip faults. Resultant regional folding/ warping of upper crust produced uplifted NE-SW belt in W Sabah (Crocker-Trusmadi Range) and is thought to be driving extensional tectonics, creating 6 elongate Quaternary graben-like basins (Tenom, Keningau, Tambunan, Ranau, Timbua and Marak-Parak))

Ulfa, Y., N. Sapari & Z.Z.T. Harith (2011)- Combined tide and storm influence on facies sedimentation of Miocene Miri Formation, Sarawak.Eksplorium 32, 2, p. 77-89.
(online at: jurnal.batan.go.id/index.php/eksplorium/article/download/2814/2586)

(Outcrop facies study of M-L Miri Fm in Miri Field area, Sarawak. Two main facies associations: (1) tide-dominated estuary; and (2) wave and storm- dominated facies)

Van den Brink, H. (2001)- Neogene dinoflagellate cysts from a deep water well, offshore Sabah, northern Borneo. Berita Sedimentologi 16, p. 22-25.
(Study of marine dinoflagellate cysts in U Miocene- Pliocene of deep water well offshore Sabah. Potential useful 'tops' in Pliocene: Hystrichokolpoma rigaudiae, H. okinawinum, Dapsilidinium pastielsi, Lingulodinium pycnospinosum. For U Miocene: Selenopemphix brevispinosa and Systematophora placacantha)

Van Heck, S.E. (2001)- Calcareous nannoplankton and planktonic foraminifera from the Neogene offshore Northwest Borneo. Berita Sedimentologi 16, p. 14-21.
(Summary of sequence of M Miocene and younger foram and nannoplankton biostratigraphic events recognized in deepwater NW Borneo wells)

Wang, P.C., S.Z. Li, L.L. Guo, S.H. Jiang, I.D. Somerville, S.J. Zhao, B.D. Zhu, J. Chen, L.M. Dai, Y.H. Suo & B. Han (2016)- Mesozoic and Cenozoic accretionary orogenic processes in Borneo and their mechanisms. In: Evolution of West Pacific Ocean, South China Sea and Indian Ocean, Geological J. 51, Suppl. S1, p. 464-489.
(Borneo Accretionary Orogen Mesozoic- Cenozoic accretionary orogeny, with intensely deformed Rajang-Crocker Gp Accretionary prism, ophiolites and calc-alkaline igneous rocks. Four episodes of Sabah deformation: (D1) displacement foliation (S1) and NNE-trending thrusts (Sabah Orogeny; 23-16 Ma); (D2) WNW- or NW-striking thrusts (formation of Deep Regional Uncomformity at 16 Ma), followed by NNW-SSE-trending thrusts and folds; (D3) Shallow Regional Uncomformity at 10 Ma; (D4) NNE-trending sinistral strike-slip faults and WNW-trending dextral faults (NW-SE-trending extension after multi-stage collisional events). Accretionary orogen related to evolution of Proto-S China Sea, which continuously subducted under Borneo Block and closed in Late Eocene- E Miocene. BAO still active, as thrusting and subduction of Dangerous Grounds under Borneo Block. NNE-trending faults considered as transform faults, rotating to present-day NW-trending faults due to CCW rotation of entire Borneo Block. Previous NNE-trending Tinjar Fault major boundary, with Oligocene- E Miocene strata and igneous rocks to NE, and Cretaceous-Late Eocene to SW)

Wolfenden, E.B. (1961)- Molluscs from the Bau Formation of the Tebakang area, First Division. Geol. Survey Department British Territories in Borneo, Annual Report 1960, p. 47-
(Brief note on Late Jurassic fauna in conglomeratic shale of Bau Lst Fm of W Sarawak: ammonites (Lithacoceras or Subplanites), bivalves (Nuculana, Cucullaea, Astare, Corbula). No figures)

Wong, Y.L. (2012)- Stratigraphy of the Ransi Member of the Middle Eocene to Oligocene Tatau Formation in the Tatau-Bintulu area, Sarawak, East Malaysia. M.Sc. Thesis, University Malaya, Kuala Lumpur, p. 1-256.
(online at: http://studentsrepo.um.edu.my/3871/)
(Ransi conglomerate-sandstone originally dated as U Miocene-Pliocene, but basal part of U Eocene- Oligocene Tatau Fm. Separated from underlying more tightly folded Belaga Fm by angular unconformity. Conglomerate mainly angular- subangular clasts of chert, quartz, igneous and metamorphic fragments. Igneous clasts rhyolite similar to M Eocene igneous intrusion at Bukit Piring in Tatau Area. Source of Ransi beds mainly from chert and metamorphic rocks of older Rajang Gp to S, as indicated by paleocurrent determinations. Volcanic clasts suggest volcanic source in hinterland during deposition. Arip Lst (equivalent to or younger than Ransi Mb) in Tatau Formation to SW with M-L Eocene microfossils such as Discocyclina, Nummulites, Pellatispira)

Xue, F.J., G. Sen, M.A. Beg & H.H.B. Abu Bakar (2016)- Effective karst modelling for carbonate build-ups in Central Luconia, Offshore Malaysia. In: 3rd EAGE Integrated Reservoir Modelling Conference, Kuala Lumpur, 4p. *(Extended Abstract)*
(On mapping karst features on 3D seismic over large offshore Miocene carbonate buildup in C Luconia)

Yan, A.S.W. (1991)- Features of volcanic-hosted epithermal gold mineralization in the Nagos and Mantri areas, Sabah. Proc. 22nd Geological Conference, Geol. Survey Malaysia, Kuala Lumpur, Techn. Paper 3, p. 1-16.

Yin, E.H. (1985)- Geological map of Sabah, East Malaysia, 3rd edition. Geol. Survey of Malaysia.

Yokoyama, K., Y. Tsutsumi & W.S.K. Bong (2015)- Age distributions of monazites in the Late Cretaceous to Late Eocene turbidite from northwestern Borneo and its tectonic setting. Bull. Natl. Museum Nat. Sci., Tokyo, C 41, p. 29-43.
(online at: www.kahaku.go.jp/research/publication/geology/download/41/L_BNMNS_C41_29-43.pdf)

Zheng, Q.L., S.Z. Li, Y.H. Suo, X.Y. Li, L.L. Guo, P.C. Wang, Y. Zhang, Y.B. Zang, S.H. Jiang & I.D. Somerville (2016)- Structures around the Tinjar-West Baram Line in northern Kalimantan and seafloor spreading in the Proto South China Sea. Geological J. 51, Suppl. S1, p. 513-523.
(Tinjar-West Baram Line is NW-trending trans-lithospheric fault in N Borneo; its NW extension into S China Sea is W Baram Line. Originated as NE/NNE-trending transform fault during spreading of Proto-South China Sea before 35 Ma and before NW trending strike-slip movement since Oligocene)

IV.4. Makassar Straits (17)

Argakoesoemah, R.M.I. (2017)- Middle Eocene palaeogeography of the greater Makassar Straits region, Indonesia: a review of Eocene source rock distribution. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-247-G, 22p.
(Review of E-M Eocene synrift sediments of Makassar Straits wells and proto-Barito and Kutai and W Sulawesi basins, areas with similar Eocene stratigraphies. Non-marine syn-rift deposition likely initiated in M Eocene, in peripheral foreland basin, with widespread marine shales by Late Eocene. Area of well-developed lacustrine M Eocene in E part of S Makassar Basin)

Baillie, P. & J. Decker (2011)- The Makassar Straits new thoughts on an old area. Proc. 2011 SE Asia Petroleum Expl. Soc. (SEAPEX) Conference, Singapore, 35p. *(Abstract + Presentation)*
(Makassar Straits formed by M Eocene extension, typical Sundaland, grabens and half-grabens. With top syn-rift unconformity of Late Eocene (38-40 Ma) age. Basement is stretched continental crust. Deepwater sediments deposited in response to tectonic events in adjacent Borneo and Sulawesi in Late Eocene- Neogene. M Miocene pulse of E-directed quartzose turbidites deposited in deepwater. All petroleum system elements present)

Bernando N., H., I. Wahyudi & R.M.I. Argakoesoemah (2017)- Structural style of the southern province of West Sulawesi fault thrust belt, and its implication for hydrocarbon exploration, Makassar Strait, Indonesia. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-387-G, 14p.

Chudanov, D. A., A. Terry, Y. Partono & J. Inaray (2004)- Field Overview of West Seno. In: Offshore Technology Conf. (OTC), Houston 2004, OTC-16520-MS, 8p.
(West Seno in Makassar Strait PSC in 2400- 3400' of water on slope of N Mahakam Delta discovered in 1998 and is Indonesia's first deepwater oil-gas field. First production in 2003. U Miocene reservoir sands series of deepwater amalgamated channel and channel-levee deposits (see also Redhead et al. 2000))

Dunham, J. & Unocal Expl. Team (2016)- Deepwater discoveries in turbidite sands of the Makassar Straits, East Kalimantan, Indonesia. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 8-TS-16, p. 1-18.
(Review of Mio-Pliocene deep-water slope channel exploration in Kutai Basin side of Makassar Straits. First oil and gas discoveries in Merah Besar (1996) and West Seno (1998) fields, followed by deeper water Gendalo (2000) and Ranggas (2002) discoveries. Deepest prospect in >6000' of water and >15,000' feet deep was Gehem (2003), reaching M Miocene fan-sands with significant gas column. Substantial exploration potential remains in M Miocene base-of-slope fan plays)

Faugeres, J.C., J. Gayet, E. Gonthier, C.Latouche & N. Maillet (1990)- Variation des sources de sediments dans le detroit de Makassar (Indonesie) au Quatemaire recent: role des facteurs morphostructuraux et eustatiques. Oceanologica Acta 1990, Spec. Vol. 10, Actes du Colloque Tour du Monde Jean Charcot 1989, p. 295-306.
(online at: http://archimer.ifremer.fr/doc/00268/37924/36005.pdf)
('Variations in sediment sources in Makassar Straits (Indonesia) in the late Quaternary: the role of morphostructural and eustatic factors'. Mineralogy of sediments from Makassar Straits show differences between sediments supplied from Kalimantan in W and Sulawesi in E. Kalimantan source quartzitic sand, with rare feldspars. Heavy minerals mainly pyroxene (hypersthene) and amphibole, clays mainly illite-kaolinite. Sulawesi source abundant feldspars, lithoclasts and micas, with amphibole and pyroxene (augite) and illite-chlorite clay mineraIs. During Late-Pleistocene of sealevel lowstand Mahakam River discharged directly on shelf edge, dominating sediment supply. Rising sealevel in Holocene trapped river sediments in delta, so most sediment supplied to Makassar Straits from steep Sulawesi margin)

Lelono, E. B. (2007)- Palinomorf Eosen dari Selat Makasar. Lembaran Publikasi Lemigas 41, 2, p. 1-10.
('Eocene palynomorphs from C Makassar Straits'. Interval 8100'-11850' of 'Well O' in Makassar Straits with Eocene age palynomorphs, incl. Proxapertites operculatus, P. cursus, Palmaepollenites kutchensis, Cicatricosisporites eocenicus, etc. Lower abundance/diversity than in Nanggulan Fm of C Java, probably due to Late Eocene age. Appearance of moderate Restioniidites punctulosus pollen indicates dry climate)

Pireno, G.E. (2014)- Perkembangan porositas dan permeabilitas batugamping fragmental endapan laut dalam di daerah Paparan Paternoster, Cekungan Makassar Selatan. Ph.D. Dissertation Inst. Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('The development of porosity and permeability of deep marine detrital limestones marine sediment in the area of the Paternoster Platform, South Makassar Basin')

Pireno, G.E., E. Suparka, D. Noeradi & A. Ascaria (2015)- Porosity and permeability development of the deep-water Late-Oligocene carbonate debris reservoir in the surroundings of the Paternoster Platform, South Makassar Basin, Indonesia. J. Engineering Technol. Sci. (ITB), 47, 6, p. 640-657.
(online at: http://journals.itb.ac.id/index.php/jets/article/view/746/1096)
(Ruby Field gas discovery in Late Oligocene Berai Fm deep marine, re-deposited carbonate debris reservoir near Paternoster Platform. Limestone clasts range from pebble-size to boulders in matrix of micrite and fine bioclasts. Matrix-supported facies better porosity- permeability than clast-supported facies. Porosity generally moldic and vuggy, resulting from dissolution, and controlled by deep-burial diagenesis by dewatering of underlying Lower Berai Fm bathyal shales and overlying Lower Warukin shales during burial)

Prelat, A., J.A. Covault, D.M. Hodgson, A. Fildani & S.S. Flint (2010)- Intrinsic controls on the range of volumes, morphologies, and dimensions of submarine lobes. Sedimentary Geology 232, p. 66-76.
(Comparisons of submarine fan lobe dimensions from six different systems, including Pleistocene fan of Kutai basin/ W Makassar Straits (mainly from data in Saller et al. 2004, 2008). Pleistocene basin floor fan 22x22 km across, deposited during period of low sea level that ended at ~240 ka, fed by paleo-Santan River, N of Mahakam river. Main depocentre of fan located where seabed gradient decreases from 2.1° (slope) to 0.3° (basin floor), basinward of toe-trust belt)

Saller, A. (2013)- Pleistocene shelf-to-basin depositional systems, offshore East Kalimantan, Indonesia: insights into deep-water slope channels and fans. AAPG Distinguished Lecture, 2012-2013 Lecture Series, Search and Discovery Art. 50847, 52p. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2013/50847saller/ndx_saller.pdf)
(3D seismic data y of Pleistocene shelf margin, slope and basin offshore E Kalimantan/ Makassar Straits. Clastic sequences on shelf dominated by progradational packages deposited during highstands and falling eustatic sea level. During last two sealevel lowstands (~18 and ~130 ka), coarse lastics generally not deposited in deep-water because lowstand deltas did not prograde over underlying shelf margin. During lowstand of ~240 ka, deltas prograded over previous shelf edge, and sand-rich sediments spilled onto slope. Channel-levee complexes on slopes where deltaic sediment supply was large (paleo-Mahakam River); incised valleys/canyons on slopes with limited clastic input. Basin floor deposits dominated by mass-transport complexes, suggesting slope valleys and canyons formed by mass failures of slope, not erosion associated with turbidite sands)

Saller, A. (2017)- Mixed carbonates and siliciclastics North of the Mahakam Delta, Offshore East Kalimantan, Indonesia. AAPG Ann. Conv. Exhib., Houston 2017, Poster, Search and Discovery Art. 1393, 5p. *(Abstract + Poster presentation)*
(online at: www.searchanddiscovery.com/documents/2017/51393saller/ndx_saller.pdf)
(For last 7 My carbonates mixed with siliciclastics N of Mahakam delta. Modern carbonates deposited locally N of delta while large amounts of clastics coming out of delta. Late Pleistocene carbonate mounds(on upthrown side of faults) and shelf margin carbonates (on underlying shelf margins) repeatedly grew during transgressions. During sea level highstands siliciclastics prograded across shelf, covering many carbonates. During last 7 My shelf margins generally backstepping landward N of Mahakam delta. Shales covering carbonates are downlapping packages, generally not effective seals)

Sardjono (1999)- Crustal structure of the Makassar Strait implication for geodynamics processes. Proc. 24th Ann. Conv. Indon. Assoc. Geophys. (HAGI), Surabaya, p. 3-10.

Siringoringo, L.P. & D. Noeradi (2016)- The Paleogene tectonostratigraphy of northern part Masalima Trench Basin. J. Geoscience Engineering Environm. Technol. (JGEET) 1, 1, p. 7-24.

(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/2/2)
(N part of Masalima Trench Basin in S end of Makassar Straits and extends to NE part of Java Sea. N part of Masalima Trench Basin formed by NE-SW normal faults with early syn rift sediment (M Eocene), deep marine late syn rift (Late Eocene- E Oligocene) and deep marine post rift (E Oligocene- E Miocene). Basement in 'Alpha well' red radiolaria chert, presumably tectonic melange, in 'Beta well' (on high) metasediments with K-Ar age of 131 ± 7 Ma (Lower Cretaceous))

Situmorang, B. (1977)- The Makassar Trough regional geology and hydrocarbon prospects. Lemigas Scientific Contr. 1, 1, p. 3-20.
(N and S Makassar basins originated as continental rift in triple-junction rift-system. Classified as marginal sea, flanked in W by Asian continental margin and by volcanic arc of Sulawesi in E. Strongly positive gravity anomalies suggest it is underlain by oceanic crust. Melawi-Ketungau basins of Kalimantan possible third arm of triple junction rift system. Possible presence of turbiditic reservoir rocks, and favorable conditions for accumulation of organic matter during initial rifting stage of seafloor spreading suggest Makassar basins may be highly prospective)

Tanos, C.A. (2011)- Diagenetic effects on reservoir properties in a carbonate debris deposit: case study in the Berai Limestone, ñMò Field, Makassar Strait, Indonesia. Bull. Earth Sci. Thailand 4, 2, p. 17-24.
(online at: www.geo.sc.chula.ac.th/BEST/volume4/number2/3_Chrisna_Asmiati_Tanos_BEST_4_2_p%2017-24.pdf)
(S Makassar Straits 'M' gas field (= Ruby/ Makassar Straits) developed in Oligocene- E Miocene Berai Fm carbonate slope debris reservoirs. With multistage diagenetic and tectonic evolution, incl. phase of late deep burial leaching)

Wijaya, P.H. & D. Kusnida (2009)- Tinjauan geotektonik Selat Makassar Utara, implikasinya terhadap potensi hidrokarbon laut dalam cekungan Kutai, Kalimantan Timur. J. Geologi Kelautan 7, 3, p. 109-121.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/176/166)
('The geotectonic views of the North Makassar Straits, its implications for the potential of marine hydrocarbons in the Kutai basin, East Kalimantan'. Literature review of geotectonic evolution of Makassar Straits and potential for hydrocarbons in deepwater Makassar Straits in toe thrusts around Mahakam Delta. Seismic character, water depths, gravity modeling, etc. suggest much of Makassar Straits, including the Mahakam Delta, underlain by oceanic crust, as continuation of Eocene spreading in Celebes Sea)

V. SULAWESI (113)

V.1. Sulawesi (108)

Advokaat, E.L. (2015)- Neogene extension and exhumation in NW Sulawesi. Ph.D. Thesis Royal Holloway London University. p. *(Unpublished)*

Advokaat, E., R. Hall, L. White, I.M. Watkinson, A. Rudyawan & M.K. BouDagher-Fadel (2017)- Miocene to recent extension in NW Sulawesi, Indonesia. J. Asian Earth Sci. 147, p. 378-401.
(online at: http://searg.rhul.ac.uk/pubs/advokaat_etal_2017%20Extension%20North%20Sulawesi.pdf)
(Malino Metamorphic Complex (MMC) in W part of N Arm of Sulawesi previously suggested to be metamorphic complex exhumed in E-M Miocene. New data suggest MMC metamorphic core complex which underwent extension during E-M Miocene, but no exhumation at this time: (1) Pliocene undeformed granitoids intrude MMC indicating complex still at depth and (2) Pliocene- Pleistocene cover sequences do not contain metamorphic detritus. Second phase of extensional uplift with brittle faulting from Late Miocene-Pliocene onwards, with MMC exhumation (synchronous exhumation of adjacent Palu Metamorphic Complex in W Sulawesi, and rapid offshore subsidence in Gorontalo Bay). Linked to N-ward slab rollback of S-subducting Celebes Sea since Pliocene, and ongoing at present day)

Budiman, B., I. Hardjana & Hermadi (2012)- The geology and Au-mineralization system in the Totopo West Prospect, Gorontalo, Indonesia. Majalah Geologi Indonesia 23, 3, p. 159-170.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/732)
(Same paper as Budiman et al. 2011). Totopo West gold prospect, W of Gorontalo, probable Miocene andesitic volcanics unconformably overlain by Pliocene-Pleistocene dacitic volcanics, all intruded by are intruded by contemporaneous diorite and dacite porphyry dykes. Additional exploration required)

Caldwell, .G. & M. Lillie (2004)- Manuel Pinto's inland sea: using palaeoenvironmental techniques to assess historicalevidence from Southwest Sulawesi. In: S.G. Keates & J. Pasveer (eds.) Quaternary Research in Indonesia, Chapter 13, Modern Quaternary Research in Southeast Asia 18, Balkema, Leiden, p. 259-272.
(Discussion of historical Bugis accounts (La Galigo) suggesting expansion of Tempe, Sidenreng and Buaya lakes in SW Sulawesi and possible seaway across SW Arm of Sulawesi)

Chaerul, M., L.O. Ngkoimani & S. Sadri (2017)- Limestone facies and diagenesis on Tondo Formation at Kaisabu Village Bau-Bau City Southeast Sulawesi Province. J. Geoscience Engin. Environment Techn. 2, 1, p. 9-13.

Cipta, A., R. Robiana, J.D. Griffin, N. Horspool, S. Hidayati & P. Cummins (2016)- A probabilistic seismic hazard assessment for Sulawesi, Indonesia. In: P.R. Cummins & I. Meilno (eds.) Geohazards in Indonesia; Earth science for disaster risk reduction, Geol. Soc. London, Spec. Publ. 441, 20p.
(High seismic activity rates, both along fast-slipping crustal faults(Palu-Koro-Matano Fault) and in regions of distributed deformation, contribute moderate-high earthquake hazard over all but the SW part of Sulawesi)

Cita, A., H. Moechtar, U.M. Lumbanbatu, Subiyanto & S. Poedjoprajitno (eds.) (2014)- Geodinamika Kuarter daerah Sulawesi Utara. Pusat Survei Geologi (Badan Geologi), Bandung, Spec. Publ., p. 1-275.
('Quaternary geodynamics of the Sulawesi region'. Collection of papers on Quaternary of Sulawesi)

Cornee, J.J., R. Martini, M. Villeneuve, L. Zaninetti, E. Mattioli, R. Rettori, F. Atrops & W. Gunawan (1997)- Jurassic pelagic deposits of East Sulawesi (Kolonodale Area, Indonesia): new biostratigraphic data based on calcareous nannofossils. In: Geoitalia, 1 Forum FIST, 2, p. 97-98 *(Abstract)*
(online at: http://archive-ouverte.unige.ch/unige:4764)
(E-M Jurassic (Toarcian- Bathonian) calcareous nannoplankton above Late Triassic limestones in dismembered succession in Kolonodale-Beteleme area of W margin of E Sulawesi Zone)

Costa, K.M., J.M. Russell, H. Vogel & S. Bijaksana (2015)- Hydrological connectivity and mixing of Lake Towuti, Indonesia in response to paleoclimatic changes over the last 60,000 years. Palaeogeogr. Palaeoclim. Palaeoecology 417, p. 467-475.
(Sediment geochemistry of cores from Lake Towuti in C Sulawesi records paleoclimate changes over last 60 ka. During Last Glacial Maximum no changes in sediment provenance, despite drier climate, but trace elements suggest decrease in weathering intensity, likely in response to decreased precipitation and temperature)

Dirk, M.H.J. (2010)- Ofiolit di jalur Sulawesi Timur, Warta Geologi 5, 3, p. 40-43.
(online at: http://www.bgl.esdm.go.id/images/stories/warta_geologi/pdf/warta201003.pdf)
('Ophiolite in the East Arm of Sulawesi'. Brief review)

Dzakirin, D.F., P.Y. Pratama, W.B. Raharjo, S. Hartanto, R. Armanda, Jaenudin et al. (2017)- Development and controlling factors of Miocene carbonate buildups: an example from the Senoro gas field, Central Sulawesi. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 3p.
(Senoro gas field in E Sulawesi divided into two carbonate reservoir areas: (1) N Senoro with Mentawa carbonate buildup facies, and (2) S Senoro with Minahaki platform carbonate facies)

Ernowo, F.M. Meyer, A. Idrus, H. Widyanarko & N.L. Endrasari (2016)- An update of key characteristics of Awak Mas mesothermal gold deposit, Sulawesi Island, Indonesia. Proc. 8th Ann. Conv. Indonesian Soc. Economic Geol. (MGEI), Bandung, p. 72-75.
(Awak Mas gold deposit in metamorphic belt of Sulawesi. Hosted by low-metamorphic Cretaceous Latimojong Fm flysch sequence locally intruded by diorite dykes. Believed to have formed by hydrothermal fluids sourced from metamorphic dewatering reactions of marine sediments (mesothermal orogenic gold deposit))

Fadhlurrohman, I., A.F. Parma & C. Fitriani (2017)- Geological observation on Kabaena Island, Southeast Sulawesi: an implication of hydrocarbon occurrence in frontier area based on outcrop study. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-190-SG, 11p.
(Kabaena island off SE Sulawesi contains ultramafic rocks (peridotite), Pompangeo Complex low-medium grade metamorphics (amphibilite, schist) and metamorphosed, fractured Matano Fm limestone and some black shale. Ultramafic rocks thrusted over microcontinental rocks. Gas seepage in limestone unit tied to strike slip fault. Not much new)

Farida, M., A. Imran & F. Arifin (2014)- Lingkungan pengendapan purba satuan napal Formasi Tonasa berdasarkan kandungan foraminifera bentonik, studi kasus: Sungai Camming dan Sungai Palakka Kabupaten Barru, Provinsi Sulawesi Selatan. J. Penelitian Geosains (Hasanuddin University) 10, 2, p. 50-57.
(online at: http://repository.unhas.ac.id/bitstream/handle/123456789/15298/)
('Depositional environment of the marl unit of the Tonasa Formation based on benthic foraminifera, case studies: Camming River and River Palakka Barru, S Sulawesi Province'. Mainly middle-outer neritic facies ('30.48- 182.88m'), concluded from nodosarids-dominated benthic foram assemblages in Early-Late Eocene of Tonasa Marls in two outcrop sections)

Farida, M., Pratiwi & R. Husain (2014)- Paleotemperature of Middle Eocene Tonasa Limestone based on foraminifera at Palakka Area South Sulawesi. Int. J. Engineering and Science Applications (UNHAS) 1, 1, p. 77-84.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/137/93)
(Interbedded marl/limstone at Palakka section, Barru area (presumably basal Tonasa Lst) with lower M Eocene (P11) planktonic foraminifera and middle? neritic small benthic forams ('warm water= 0-27°C'))

Ferdian, F. (2017)- Eastern Sulawesi basement: revelation from zircon data. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 3p. *(Extended Abstract)*
(Zircon ages from Banggai-Sula and E Sulawesi. Granites from Banggai-Sula region with mainly Permo-Triassic age zircons. Also one Banggai-Sula granitoid with 23-26 Ma zircons. Banggai and Taliabu metamorphics mainly Proterozoic zircon ages. Sulabesi metasediments with Permo-Triassic zircons. SE

Sulawesi Mekongga Fm metamorphics with Mesozoic-Paleozoic and Meso-Paleoproterozoic zircons, but youngest zircon ~170 Ma (M Jurassic) (similar zircon distribution in Triassic-Jurassic Meluhu clastics))

Frantz, L.A., F.A. Rudzinski, A.M.S. Nugraha, A. Evin, J. Burton, A. Hulme-Beaman et al. (2018)- Synchronous diversification of Sulawesiôs iconic artiodactyls driven by recent geological events. Proc. Royal Society (London) B 285, 20172566, p. 1-8.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5904307/pdf/rspb20172566.pdf)
(Paleogeographical reconstructions with genetic and morphometric datasets from Sulawesi's three largest mammals (babirusa, anoa, Sulawesi warty pig) indicate these likely colonized Sulawesi at different times (14 Ma to 2-3 Ma), and experienced near-synchronous expansion from central part of island at ~1-2 Ma. Endemic fauna of Sulawesi driven by geological events over last few million years)

Fu, W., Y. Zhang, C. Pang, X. Zeng, X. Huang, M. Yang, Ya Shao & H. Lin (2018)- Garnierite mineralization from a serpentinite-derived lateritic regolith, Sulawesi Island, Indonesia: mineralogy, geochemistry and link to hydrologic flow regime. J. Geochemical Exploration 188, p. 240-256.
(On genesis of garnierite nickel ore, mainly in veins in lower saprolite of serpentinite-derived regolith. Ni preferentially enriched in talc-like phases rather than serpentine-like phases)

Hakim, A.Y.A. (2017)- Genesis of orogenic gold in the Latimojong district, South Sulawesi, Indonesia. Dissertation Montanuniversitat Leoben, Germany, p. 1-355.
(online at: https://pure.unileoben.ac.at/portal/files/2214320/AC14527918n01.pdf)
(Awak Mas and Salu Bullo gold deposits in Latimojong Metamorphic Complex, S Sulawesi. Latimojong MC part of Late Cretaceous accretionary complex with high-P metamorphics, W of obducted Lamasi Complex (= E Sulawesi Ophiolite?). Gold hosted in quartz veins in pumpellyite- to greenschist-facies metasedimentary and metavolcanic rocks. Metamorphic reactions in metasedimentary rocks during retrogression stage considered main source of ascending fluids forming Au-mineralization)

Hakim, A.Y.A., F. Melcher, W. Prochaska, R. Bakker & G. Rantitsch (2018)- Formation of epizonal gold mineralization within the Latimojong Metamorphic Complex, Sulawesi, Indonesia: Evidence from mineralogy, fluid inclusions and Raman spectroscopy. Ore Geology Reviews 97, p. 88-108.
(Gold deposits in Latimojong Metamorphic Complex, S Sulawesi (Awak Mas, Salu Bulo), in pumpellyite-greenschist facies metasedimentary and metavolcanic rocks. Gold in quartz veins in N-S normal faults and extensional fractures. Minerals dominated by pyrite, chalcopyrite, galena, minor tetrahedrite and sphalerite; gold is electrum with low silver content. Gold bearing fluids trapped in quartz at ~180-250 °C at depths <5 km. Isothermal decompression during retrogression stage mobilized large volumes of fluids, leading to significant gold mineralization)

Harjanto, Ernowo (2017)- Hydrothermal alteration and gold mineralization of the Awak Mas gold deposit, Sulawesi Island, Indonesia. Ph.D. Thesis RWTH Aachen University, Germany, p. 1-177.
(Awak Mas metasedimentary-hosted gold deposit in Cretaceous metamorphic Latimojong Fm, S Sulawesi. Hosted by phyllites-schists representing metamorphosed shales derived from acidic arc volcanic rocks in continental island arc setting, and metamorphosed under low P-T conditions (greenschist-facies). Obduction and thrusting of Lamasi Ophiolite Complex onto Latimojong Metamorphic Complex in Miocene led to ductile deformation, followed by crustal thickening that caused melting at base of crust and granitic magmatism at 5-8.1 Ma. Granodiorites of calc-alkaline magmatic affinity emplaced in transition between volcanic-arc and syn-collisional granite tectonic setting. Extensional collapse caused brittle deformation (normal faulting/ fracturing) and formation of veins controlled gold mineralization. Awak Mas epigenetic, orogenic gold deposit)

Harjanto, E., F.M. Meyer & A. Idrus (2015)- Geology and mineralization of Awak Mas gold deposit and challenges for new exploration targeting in the metamorphic rock terrain of eastern Indonesia. Proc. 13th Biennial Mtg Soc. Geology Applied to Mineral Deposits (SGA), Nancy, p. 103-106.
(Awak Mas one of metamorphic-rock hosted gold deposits in C Sulawesi metamorphic belt. Dominant lithologies slate, phyllite and mica schist. Mineral assemblage reflects high P/ low T environment or greenschist facies metamorphic rocks. Extensional faults, shears and fractures control gold mineralization)

Hasria, A. Idrus & I.W. Warmada (2017)- The metamorphic rocks-hosted gold mineralization at Rumbia Mountains prospect area in the Southeastern Arm of Sulawesi Island, Indonesia. J. Geoscience Engineering Environm. Technol. (JGEET) 2, 3, p. 217-223.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/434/376)
(On 'orogenic gold' in gold-bearing quartz veins in Pompangeo Metamorphic Complex of Permo-Carboniferous metasediments and mica schists at Rumbia Mountains, SE Sulawesi. Veins sheared/deformed and brecciated, 1- 15.7 cm thick. Associated with pyrite, chalcopyrite, hematite, cinnabar, stibnite and goethite. Gold also in derived placer deposits)

Hennig, J., R. Hall, M.A. Forster, B.P. Kohn & G.S. Lister (2017)- Rapid cooling and exhumation as a consequence of extension and crustal thinning: implications from the Late Miocene to Pliocene Palu Metamorphic Complex, Sulawesi, Indonesia. Tectonophysics 712-713, p. 600-622.
(online at: http://searg.rhul.ac.uk/pubs/hennig_etal_2017%20Rapid%20cooling%20Palu%20Sulawesi.pdf)
(Metamorphic complexes form 1.5- 2km high mountains in W Sulawesi, and younger than previously thought. Some have Eocene sedimentary protoliths. Palu Metamorphic Complex strongly deformed and partially melted to migmatites. 40Ar/39Ar dating shows cooling in E Pliocene (~5.3-4.8 Ma) in N, and Late Pliocene (~3.1-2.7 Ma) in S. Intruded S-type granites similar Pliocene ages. Fast cooling and rapid exhumation in very young orogenic belt. Contemporaneous magmatism and deformation interpreted as consequence of decompressional melting due to extension. I-type magmatic rocks, separated from PMC by Palu-Koro Fault exhumed from upper crustal levels at moderate rates)

Idrus, A., S. Mansur, Ahmad, Rahmayuddin & Abdul (2016)- Occurrences and characteristics of gold mineralization in Rampi Block prospect, North Luwu Regency, South Sulawesi Province, Indonesia. J. Applied Geology (UGM) 1, 2, p. 63-70.
(online at: https://journal.ugm.ac.id/jag/article/view/26962)
(Quartz ± gold veins in Rampi block prospect mainly hosted by metamorphic and metasedimentary rocks of Latimojong Fm and Pompangeo metamorphic complex. Orientation and distribution of veins controlled by NW-SE and NE-SW trending structures. Orogenic/mesothermal gold type, with similarities to Awak Mas mesothermal prospect in Luwu district)

Idrus, A., S. Prihatmoko, E. Harjanto, F.M. Meyer, I. Nur, W. Widodo & L.N. Agung (2016)- The metamorphic rock-hosted gold mineralization at Bombana (Southeast Sulawesi) and Buru Island (Maluku): their key features and significances for gold exploration in Eastern Indonesia. Proc. 8th Ann. Conv. Indonesian Soc. Economic Geol. (MGEI), Bandung, p. 80-87.
(Examples of metamorphic rock-hosted 'orogenic' gold mineralization in Bombana (Rumbia Mts, SE Sulawesi; gold-bearing quartz veins in Pompangeo metamorphics) and NE Buru Island (quartz veins in Permo-Carboniferous Wahlua mica schists))

Idrus, A., S. Prihatmoko, E. Harjanto, F.M. Meyer, I. Nur, W. Widodo & L.N. Agung (2017)- The metamorphic rock-hosted gold deposit style at Bombana (Southeast Sulawesi) and Buru Island (Maluku): their key features and significances for gold exploration in Eastern Indonesia. J. Geoscience Engineering Environm. Technol. (JGEET) 2, 2, p. 124-132.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/291/130)
(same as Idrus et al. 2016)

Ilyas, A., K. Kashiwaya & K. Koike (2016)- Ni grade distribution in laterite characterized from geostatistics, topography and the paleo-ground water system in Sorowako, Indonesia. J. Geochemical Exploration 165, p. 174-188.
(Modeling of N-content suggests that highest grade zones are concentrated below slopes in 5-19° range)

Imran, A.M., M. Farida, M.F. Arifin & R. Husain, (2015)- Pleistocene coral reef facies in Bira, South Sulawesi. Int. J. Engineering and Science Applications (UNHAS) 2, 2, p. 183-189.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/163/118)

(Pleistocene raised reef terrace with reef front, reef core and back reef facies in Bira area at SE tip of S Arm Sulawesi. Part of complex of four seaward-young narrow terraces of U Miocene-Pleistocene 'Selayar Limestone', reflecting uplift of area (Bone Bay rift shoulder?; JTvG))

Irfan, U.R., M.S. Kaharuddin, Budiman & H. Umar (2014)- Analisis litofasies batuan vulkanik Pare-Pare di daerah Lumpue Sulawesi Selatan. Proc. 43st IAGI Ann. Conv. Exhib., Jakarta, 5p.
('Lithofacies analysis of Pare-Pare volcanic rocks in the Lumpue area of South Sulawesi'. Rock types of latest Miocene- earliest Pliocene (~4-7 Ma) Pare-Pare volcanic deposits)

Irzon, R. (2017)- Pengayaan logam berat Mn, Co, dan Cr pada laterit nikel di Kabupaten Konawe Utara, Provinsi Sulawesi Tenggara. Bul. Sumber Daya Geologi 12, 2, p. 71-86.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Heavy metal enrichment of Mn, Co, and Cr in nickel laterite in North Konawe Regency, SE Sulawesi'. Weathering of ultramafic rock causes Mn, Co and Cr enrichment mostly in laterite, whilst Ni concentrated in transitional bedrock. Highest REE concentrations in lateritic horizon)

Irzon, R. & Baharuddin (2016)- Geochemistry of ophiolite complex in North Konawe, Southeast Sulawesi. Eksplorium 37, 2, p. 101-114.
(online at: http://jurnal.batan.go.id/index.php/eksplorium/article/view/2868/pdf)
(Geochemistry of N Konawe ultramafic rocks suggest origin in arc tholeiitic tectonic environment setting. SiO_2 38.5- 41%, etc. Emplaced in E Cretaceous, unconformably overlain by Late Cretaceous Matano Fm)

Jaya, A., O. Nishikawa & Y. Hayasaka (2017)- LA-ICP-MS zircon U-Pb and muscovite K-Ar ages of basement rocks from the south arm of Sulawesi, Indonesia. Lithos 292-293, p. 96-110.
(Ages of detrital zircons in Bantimala Complex and muscovite K-Ar of amphibolite in Biru Complex 109-115 Ma. Youngest detrital zircon in schist from Barru Complex Triassic (243-247 Ma). Age data indicate protoliths of S Sulawesi basement complexes involved in subduction system and metamorphosed in late E Cretaceous. Felsic igneous intrusive rocks Late Cretaceous and Eocene ages, similar to Meratus Complex of S Kalimantan. Detrital zircon age distributions of basement rocks supporting W Sulawesi block origin from circum Birds Head-Australia (Inner Banda block). Absence of Jurassic zircon age population in S Arm of Sulawesi. W Sulawesi composed of several blocks separated from Inner Banda block with different histories)

Jaya, A. & D.R. Salamba (2014)- Studi struktur makro (mesoscale structure) batuan metamorf daerah Barru Provinsi Sulawesi Selatan. Pros. 2014 Seminar Penelitian Teknologi Terapan 2014 (8), Hasanuddin University, Makassar, p. TG3-1- TG3-8.
(online at: http://repository.unhas.ac.id/handle/123456789/16802)
(' Study of the macrostructure (mesoscale structure) of metamorphic rocks in the Barru region, S Sulawesi'. Barru metamorphic block composed of low- moderate grade metamorphic rocks, with foliation generally NE-trending and tilting to SE. Two main stretching directions i.e., SE-NW-trending and NE-SW-trending, both plunging to W. Fault low angle dip-slip or thrust and horizontal movement or strike-slip. Locally high angle dip-slip faults. Folds formed earlier than faults)

Jaya, A., A.I.S. Simalango & A. Maulana (2015)- Struktur dan deformasi batuan metamorf daerah Paboya Provinsi Sulawesi Tengah. J. Penelitian Geosains (Hasanuddin University) 11, 1, p. 35-41.
(online at: http://repository.unhas.ac.id/handle/123456789/16801)
('Structure and deformation of metamorphic rocks in the Poboya region of Central Sulawesi province'. Poboya/ E Palu District in 'neck' of Sulawesi with outcrops of molasse sediments, gneiss and biotite schist. Folding and post-Tertiary horizontal faulting.Quartz crystal orientations and porphyroblasts in amphibolite-greenschist facies indicate formation at low-medium T (300-700°C) and P <1 Gpa, during syn-tectonic sinistral shear, related to Palu-Koro regional fault)

Kaharuddin M.S., A. Jaya & H. Sirajuddin (2015)- Olistostrome dan batu mulia kompleks tektonik Bantimala, Kabupaten Pangkajene dan kepulauan, Provinsi Sulawesi Selatan. Proc. 24th TPT and 9th Congress Assoc. Indonesian Mning Professionals (PERHAPI), Jakarta 2015, p. 65-76.

(online at: http://repository.unhas.ac.id/bitstream/ ....)
('Olistostrome and precious stones in the Bantimala tectonic complex, Pangkajene District, S. Sulawesi'. Bantimala Complex composed of metamorphic rocks such as glaucophane schist, hornblende mica schist, eclogite, granulite, phyllite and metaquartzite of Triassic age. Olistostrome components schist, quartzite, metachert, jadeite, Jurassic-Cretaceous metaperidotite and Cretaceous sediments (flysch, shale, sandstone, mudstone and radiolarian chert). Basement contains precious stones like agate, jade, turquoise, etc.)

Kundig, E. (1932)-Morphologie und Hydrographie der Toili-Ebene (Ostcelebes). Mitteilungen Geographisch-Ethnograph. Gesellschaft Zurich 32, 2, p. 105-134.
(online at: https://www.e-periodica.ch/digbib/view?pid=ghl-002:1931-1932:32#124)
('Morphology and hydrography of the Toili plain (East Sulawesi). Geographic description of East Arm of Sulawesi. With 1: 200,000 topographic map of SE coast of East Arm)

Kurniawan, A.P., G.P. Adi, M. Arifin, A.S. Arifin, K. Sani, S. Pamungkas, A.D. Guntara & T. Suroso (2017)- Imaging Miocene duplex carbonate play beneath ophiolite belt zone using seismic synthetic modeling approach. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-60-G, 8p.
(Seismic suggestive of carbonate duplex structure under ophiolite in Banggai-Sula foreland basin imbricate thrust zone (Batui Thrust belt), E Sulawesi)

Kurniawan, A.P., G.P. Adi, M. Arifin, A.S. Ningrum & A.S. Arifin (2017)- Pliocene deep water carbonate turbidites play evaluation in the Banggai-Sula foreland basin. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-59-G, 14p.
(Banggai-Sula Foreland Basin in Matindok Block, E Sulawesi, is product of Late Miocene- E Pliocene collision between Banggai Sula microcontinent and E Sulawesi Ophiolite-magmatic arc of Sundaland. Onshore wells Matindok-7 and Penyu-1, and discovered gas-condensate in M-52 carbonate layer of Plio-Pleistocene Celebes Molasse. M-52 turbiditic carbonate 3 layers, with (reworked?) Miocene Lepidocyclina, poosity 10-20%)

Kurniawan, A.P., I. Firman, E. Nurjadi, A. Prasetyo & I.G. Widyoseno (2018)- Unlocking potential plays of unexplored back-bulge in the Banggai-Sula foreland basin. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA41G, 17p.

Kusuma, R.A.I., H. Kamaruddin, R.R. Wibawa & M.R. Kamil (2015)- Geological prospect, resource and ore reserve estimation in Pomalaa Kolaka, Southeast Sulawesi, Indonesia. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Econ. Geol. (MGEI) 7th Ann. Conv., Balikpapan, p. 67-76.
(Pomalaa nickel mine/prospect in SE Arm of Sulawesi, 30km S of Kolaka, in N-Co laterite on East Sulawesi Ophiolite. Typical laterite profile: weathered, serpentinized ultramafic bedrock overlain by 2-7m thick saprolite layer with average 1.7-2.3% nickel (mainly garnierite), overlain by 3-7m thick yellow and red limonite zone with 0.4-1.2% nickel)

Marrama, G., S. Klug, J. De Vos & J. Kriwet (2018)- Anatomy, relationships and palaeobiogeographic implications of the first Neogene holomorphic stingray (Myliobatiformes: Dasyatidae) from the early Miocene of Sulawesi, Indonesia, SE Asia. Zoological J. Linnean Society 20, p. 1-27.
(Redescription of Trygon vorstmani De Beaufort 1926, an E Miocene stingray from fish-bearing limestones of Tonasa Fm near Patoenoeang Asoe E in Maros District of SW Sulawesi. Assigned to new genus Protohimantura. First holomorphic stingray specimen from Neogene)

Martini, R., D. Vachard, L. Zaninetti, S. Cirilli, J.J. Cornee, B. Lathuiliere & M.Villeneuve (1996)- Upper Triassic reefal facies in E Sulawesi, Indonesia. In: Sediment '96, 11th Meeting of Sedimentologists, Universitat Wien, Vienna 1996, p. 109. *(Abstract only)*
(online at: https://archive-ouverte.unige.ch/unige:4766)
(Widely outcropping Late Triassic reefal carbonate platform between Kolonodale and Tomata on W margin of Ophiolitic Zone of E and SE arms of Sulawesi. Late Norian-Rhaetian age based on rich benthic foraminifera, and also on youngest Mesozoic conodont Misikella posthemsteini. Two foraminiferal associations, lagoonal (Triasina hantkeni and other Aulotortidae) and reefal (porcelaneous foraminifers incl. Galeanella). Main

framebuilders: branching coral Retiophyllia seranica, chaetetid sponge Blastochaetetes intabulata and solenoporacean algae (see also Cornee et al. 1994, Martini et al. 1997))

Maulana, A. (2013)- A petrochemical study of granitic rocks from Sulawesi Island, Indonesia. Doct. Engineering Thesis, Kyushu University, Fukuoka, p. 1-167.
(online at: http://repository.unhas.ac.id/handle/123456789/7116)
(Study of granitic rocks from 11 areas in W and N Sulawesi. Plutons classified as (1) high-K /shoshonitic (HK), mainly in S and CW part of W Sulawesi; (2) high-K calc-alkaline (CAK) in C and NW part of province; (3) low K- tholeiitic, dominant in N Sulawesi. Most granitoids metaluminous I-type granitic rocks. HK and CAK granitic rocks derived from partial melting of lower crustal sources with arc signature; low-K /tholeiitic granites from oceanic crust. Crystallization depths ~4-12 km. Rapid exhumations of granites in W Sulawesi triggered by Late Miocene- Pliocene collision of Banggai- Sula microcontinent with E Sulawesi (Ar-Ar cooling ages 9.5.1 Ma. Exhumation of granites in N Sulawesi attributed to Celebes Sea subduction)

Maulana, A. (2013)- Mineral chemistry of chromite from ultramafic rock in South Sulawesi, Indonesia. J. Penelitian Geosains (Hasanuddin University) 9, 2, p. 83-87.
(online at: http://repository.unhas.ac.id/handle/123456789/15016)
(Chromite occurs in chromitite as podiform lenses or layers 10-40 cm thick in depleted lherzolite and dunite from Bantimala and Barru blocks, S Sulawesi. Also other differences in mineral chemistry, suggesting chromitites originated in different settings, Bantimala from parental melt in island arc environment, Barru from boninitic lava)

Maulana, A. (2014)- Iron ore occurrence in Balanalu area Limbong District North Luwu South Sulawesi. J. Penelitian Geosains (Hasanuddin University) 10, 1, p. 38-49.
(online at: at: http://repository.unhas.ac.id/)
(C Sulawesi magnetite and hematite mineralization in weathered and brecciated andesitic-dacitic tuff)

Maulana, A., A. Jaya & A. Imai (2018)- Study on gold and base metal occurrence in Uluwai prospect, Western Latimojong Mountain, South Sulawesi. Int. Conf. Nuclear Technologies and Sciences (ICoNETS 2017), Makassar, IOP Conf. Series, Journal of Physics Conf. Series 962, 9p.
(online at: http://iopscience.iop.org/article/10.1088/1742-6596/962/1/012011/pdf)
(Uluwai Cu-Au prospect in N part of South Arm of Sulawesi, along E part of Kalosi Fold Belt and Latimojong Mountain. Mineralization rel. simple sulphide ore mineral assemblage (pyrite, sphalerite, chalcopyrite) in metasediments and greenschist)

Maulana, A., A. Jaya & K. Sitha (2017)- Field characteristic of metamorphic-hosted gold deposit in Sulawesi, Indonesia: An insight into Awak Mas prospect, South Sulawesi. Int. J. Engineering and Science Applications (UNHAS) 4, 2, p. 105-111.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/1385/351)
(Metamorphic-hosted gold deposit in Awak Mas, S Sulawesi with two main styles of quartz vein mineralization. Gold mineralization considered as mesothermal deposit . Gold mainly hosted within Latimojong flysch sequence, also in basement schist associated with shear zones in Lamas ophiolitic sequences)

Maulana, A. & K. Sanematsu (2015)- Study on the critical metal and Rare Earth Element occurrences in Sulawesi. Int. J. Engineering and Science Applications (UNHAS) 2, 1, p. 41-46.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/145/101)
(Scandium-bearing laterite Ni deposits in Sulawesi could be dominant source of Sc resources in future)

Maulana, A. & K. Sanematsu (2015)- An overview on the possibility of scandium and REE occurrence in Sulawesi, Indonesia. In: ICG 2015, 2nd Int. Conf. and 1st Joint Conf. Faculty of Geology Universitas Padjaran and University of Malaysia Sabah, p. 151-156.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/An-overview-on-the-possibility-of-scandium-and-REE-occurrence-in.pdf)

(Lateritic soil of ultramafic rocks of Sulawesi may be potential source of scandium, while weathered I-type granitic rocks could be potential source of rare earth elements (but no actual data to support this?))

Maulana, A., K. Sanematsu & M. Sakakibara (2016)- An overview on the possibility of Scandium and REE occurrence in Sulawesi, Indonesia. Indonesian J. Geoscience 3, 2, p. 139-147.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/283/211)
(Similar to Maulana & Sanematsu 2015. Sc concentrated in lateritic limonite layers in Soroaka ultramafic complex)

Maulana, A., K. Watanabe and K. Yonezu (2016)- Petrology and geochemistry of granitoid from South Sulawesi, Indonesia: implication for Rare Earth Element (REE) occurrences. Int. J. Engineering and Science Applications (UNHAS) 3, 1, p. 79-86.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/280/164)
(Late Miocene- Pliocene calk-alkaline I-type granitoids at Polewali and Masamba, 300-400 km N of Makassar, W Sulawesi, with average REE content 249 and 194 ppm. REE-bearing minerals zircon, monazite and apatite)

Maulana, A., K. Watanabe, K. Yonezu, G. Zhang & T. van Leeuwen (2016)- Exhumation and tectono-magmatic process of granitic rock from Sulawesi. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 362-364.
(In C and N parts of W Sulawesi Late Miocene- Pliocene granite plutons rise to 3000m altitude. P-T data suggest increasing depth of emplacement of plutons from CW to NW Sulawesi (~2.1 to ~11km) and more rapid exhumation (0.37- 2.7 mm/year. Most rapid uplift tied to Palu-Koro fault activity)

Mawaleda, M., E. Suparka, C.I. Abdullah, N.I. Basuki, M. Forster, Jamal & Kaharuddin (2017)- Hydrothermal alteration and timing of gold mineralisation in the Rumbia Complex, Southeast Arm of Sulawesi, Indonesia. In: 2nd Int. Conf. Transdisciplinary research on environmental problems in Southeast Asia (TREPSEA), Bandung 2016, IOP Conf. Series, Earth Environm. Science, 71, 012030, p. 1-15.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/71/1/012030/pdf)
(Rumbia WNW-ESE trending high P-low T metamorphic schist complex of SE Sulawesi (mainly mica schist, some blueschist) with gold mineralization in two phases: (1) initial phase related to deformation and exhumation of HP metamorphic rocks (gold, silver, stibnite, chalcopyrite, galena, etc.; syn-tectonic, ~23 Ma; mainly in N and NW parts of Rumbia Complex); (2) hydrothermal mineralization associated with extensional phase at between ~15-7 Ma. Two possible tectonic scenarios(see also Musri et al. 2016)

Muin, M.R., S. Pramumijoyo, I.W. Warmada & W. Suryanto (2017)- Neogene tectonics and paleomagnetism of the western and eastern of Palu Bay, Central Sulawesi, Indonesia. In: Southeast Asian Conference on Geophysics, Bali 2016, IOP Conf. Series, Earth Environm. Science 62, 012003, 6p.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/62/1/012003/pdf)
(Paleomagnetic work on 8 Neogene granites suggests similar rotation of both sides of Palu Bay during Neogene)

Musri, M., E. Suparka, C.I. Abdullah, N.I. Basuki & M.A. Forster (2016)- 40Ar/39Ar geochronology of Rumbia schist complex: new implications for timing and hydrothermal activity in the Southeast Sulawesi gold prospect, Indonesia. Int. J. Engineering and Science Applications (UNHAS) 3, 2, p. 145-152.
(online at: pasca.unhas.ac.id/ojs/index.php/ijesca/article/download/1086/234)
(Rumbia Mountains with E-W oriented high-P/low-T, and medium-P/low-T metamorphic rocks (mica schist, glaucophane schist, greenschist). Host of gold deposits. Two periods of gold mineralization: (1) associated with tectonic deformation and metamorphic rocks exhumation (Ar/Ar age ~23 Ma); (2) related to post-tectonic hydrothermal activity (overprinting at ~6.8 Ma))

Natawidjaja, D.H. & M.R. Daryono (2015)- The Lawanopo Fault, central Sulawesi, East Indonesia. Proc.4th Int. Symposium on earthquake and disaster mitigation, Bandung 2014, AIP Conference Proc. 1658, 030001, p. 1-23.

(NW-SE trending Lawanopo fault of SE Sulawesi considered as active left-lateral strike-slip fault. Exposures of fault are clear, and it serves as tectonic boundary between different rock assemblages. Young fault, but no evidence of recent activity, consistent with lack of seismicity on fault)

Nugraha, A.M.S. (2016)- Late Cenozoic history of Sulawesi, Indonesia: the Celebes Molasse. Ph.D. Thesis Royal Holloway London University, p. 1-. *(Unpublished)*
(Celebes Molasse in SE Sulawesi unconformable over pre-Miocene rocks, post dating E Miocene Sula Spur collision. Three units: (1) serpentine-rich clastic unit (pre-Latest Miocene), (2) limestone unit (Latest Miocene-Holocene) and (3) quartz-rich clastic unit (Late Miocene-Pliocene).

Nugraha, A.M.S. & R. Hall (2017)- Late Cenozoic palaeogeography of Sulawesi, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 490, p. 191-209.
(New paleogeographic maps from E Miocene-Pleistocene (20-1 Ma), after Sula Spur- N Sulawesi volcanic arc collision. For most of Neogene Sulawesi shallow marine area with small islands surrounded by deeper marine areas. Onset of extension at ~15 Ma. Deep inter-arm bays began to form in Late Miocene and islands became larger. Pliocene increase in land area and elevation accompanied by major subsidence of inter-arm bays. Separate islands coalesced in Pleistocene to form distinctive K-shaped island known today)

Nugraha, A.M.S. & R. Hall (2017)- Light and heavy mineral constraints on the provenance of unconformity-bounded formations: an example from SE Sulawesi, Indonesia. American Geophys. Union (AGU) Fall Meeting, New Orleans, EP24B-06, 1p. *(Abstract only)*
(online at: https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/219367)
(Neogene sediments of Celebes Molasse in SE Arm of Sulawesi show unroofing series: (1) U Miocene Pandua Fm dominated by serpentinite and chrome spinel, less polycrystalline quartz and metamorphic, etc. lithics (mainly sourced from ultramafic rocks) and (2) latest Miocene-earliest Pleistocene Langkowala Fms poor in serpentinite and increasing metamorphic detritus including glaucophane/lawsonite (from exhumation of HP-LT metamorphic complexes). Two formations separated by angular unconformity)

Nugraha, A.M.S. & R. Hall (2018)- Late Cenozoic history of Sulawesi. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-27-G, 22p.
(Neogene stratigraphy of Sulawesi with five regional unconformities: (1) E Miocene (~23 Ma), (2) M Miocene (~15 Ma), (3) latest Miocene- earliest Pliocene (~ 6-5.3 Ma), (4) E Pleistocene (~1.8 Ma), and (5) M Pleistocene (~1 Ma). E Miocene collision between promontory of Sula Spur and N Sulawesi volcanic arc, causing ophiolite emplacement in E Sulawesi. M Pliocene unconformity in some areas of N Sulawesi. With 10 paleogeographic maps)

Pardiana, D., M. Harayanto, D. Ramdani, F. Ginting, D. Setyandhaka et al. (2015)- Bakan gold mine and 2014 exploration results update. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Econ. Geol. (MGEI) 7th Ann. Conv., Balikpapan, p. 101-119.
(Bakan gold mine 200km SW of Manado in N Arm of Sulawesi operational since 2013. Cluster of epithermal high-sulphidation gold occurrences hosted by Plio-Pleistocene dacitic tuffs that are unconformable over Mioccene andesitic lavas and sandstones. Mineralization similar to North Lanut mine)

Permana, H., T. McConachy, B. Priadi, J. Parr, N.D. Hananto, S. Burhanuddin, M. Pirlo, I.S. Brodjonegoro & Sultan (2008)- Gunungapi dan kegiatan hidrotermal bawah laut di perairan Sulawesi Utara: mineralisasi dan implikasi tektonik. J.Geologi Kelautan 6, 2, p. 69-79.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/151/141)
(Volcanoes and subsea hydrothermal activities in North Sulawesi waters: mineralization and tectonic implications'. IASSHA 2003 expedition in Sangihe islands waters identified the submarine volcano of Kawio Barat and observed hydrothermal activities at Roa, Naung and Banua Wuhu. At Kawio Barat volcano polychaete 'tube worms' colony growth on rock at methane gas seep)

Querubin, C.D. & S. Walters (2012)- Geology and mineralization of Awak Mas: a sedimentary hosted gold deposit, South Sulawesi, Indonesia. Majalah Geologi Indonesia (IAGI) 27, 2, p. 69-85.

(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/736)
(Awak Mas gold project in S part of C Sulawesi Metamorphic Belt, SSW of Palopo, explored since 1987. Hosted in intensely folded (WSW to SW-directed thrusting?, generally 15-50°N-dipping) Late Cretaceous Latimojong Fm flysch-type phyllites, slates, volcanics, limestones and schists, overlying basement metamorphic rocks and intruded by late diorite-monzonite plugs and stocks. T-P regime suggests either subduction or massive thrusting environment. ~N-S trending oblique normal faults and extensional fractures local controls to mineralization)

Rahardiawan, R. & L. Arifin (2013)- Struktur geologi Teluk Bone- Sulawesi Selatan. J. Geologi Kelautan 11, 3, p. 141-147.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/238/228)
('Geologic structure of Bone Bay, South Sulawesi'. Bone Bay water depth 50-2000m. Seafloor morphology strongly influenced by active faults, incl. flower structures)

Rinne, F. (1900)- Beitrag zur Petrographie der Minahassa, Nord-Celebes. Sitzungsberichte Preussischen Akademie Wissenschaften, Berlin, 1900, 1, p. 474-503.
('Contribution to the petrography of the Minahassa, North Sulawesi'. Petrographic description of volcanics and plutonic rocks of NE Sulawesi: diorite, diabase, dacites, andesites, basalt. Also granite near Gorontalo)

Rivai, T.A., K. Yonezu, K. Watanabe, Syafrizal, K. Sanematsu & D. Kusumanto (2017)- Characteristics of a Se-rich low-intermediate sulphidation epithermal deposit in the River Reef, the Poboya prospect, Central Sulawesi, Indonesia. 14th Biennial Meeting Soc. Geology Applied to Mineral Deposits (SGA), Quebec, 5p.
(Se-bearing Au-Ag low-intermediate sulphidation epithermal mineralisation in River Reef Zone of Poboya prospect, 12 km NE of Palu, C Sulawesi. Hosted in metamorphic and igneous rocks)

Robinson, G.P., B.T. Setiabudi, D.N. Sunuhadi, J.M. Hammarstrom, S. Ludington, A.A. Bookstrom, S.A. Yenie & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7026, West Sulawesi, Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rep. 2010-5090-D, Appendix G, p. 126-136.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(W Sulawesi magmatic arc part of 1200-km-long Sulawesi- Sangihe magmatic arc, active since M Miocene-Pliocene. W-dipping subduction zone. Displacement of W Sulawesi arc system over Makassar Straits/ Celebes Sea in response to Banggai-Sula microcontinent collision, resulting in Pliocene-Pleistocene uplift of composite arc system. No known porphyry copper deposits, but Malala porphyry molybdenum (4.14 Ma) in N)

Robinson, G.P., B.T. Setiabudi, D.N. Sunuhadi, J.M. Hammarstrom, S. Ludington, A.A. Bookstrom, S.A. Yenie & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7027, North Sulawesi-Sangihe-Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix H, p. 137-148.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Two known porphyry copper-gold deposits in S-C part of N Sulawesi tract: Tapadaa (3.75 Ma) and Tombulilato (3.0 Ma))

Rudyawan, A., R. Hall & L. White (2014)- Neogene extension of the Central North Arm of Sulawesi, Indonesia. American Geophys. Union (AGU), Fall Meeting 2014, San Francisco, Abstract T43A-4681, 1p. *(Abstract + Poster)*
(Sulawesi North Arm more than simple oceanic arc. Paleogene granites suggest basement evolved arc crust or continental crust, but few inherited zircon ages. Neogene granites with Paleozoic and Proterozoic inherited zircon cores, suggesting melting of Australian continental crust. Two periods of sedimentation: M Miocene and Late Miocene-Pliocene. Two major fault trends: E–W Neogene basin-bounding faults and young NW-SE strike-slip faults. Record indicates arc-continent collision and underthrusting of Australian crust in E Miocene (~22 Ma), with later extensional episodes. Metamorphic core complex formed on land in M Miocene (~15 Ma), and later extension linked to initiation of S-ward subduction of Celebes Sea in latest Miocene- E Pliocene (~5 Ma))

Sahabuddin, A.M. Imran, F. Arifin & A. Jaya (2013)- Biostratigrafi foraminifera planktonik satuan batupasir Formasi Pasangkayu Cekungan Lariang Sulawesi Barat. J. Penelitian Geosains (Hasanuddin University) 9, 2, p. 111-120.
(online at: http://repository.unhas.ac.id/handle/123456789/16805)
('Planktonic foraminifera biostratigraphy of the sandstone unit of the Pasangkayu Formation, Lariang Basin, West Sulawesi'. Pasangkayu Fm in Pasangkayu area of W Sulawesi with upper M Miocene- E Pliocene planktonic foraminifera (N14-N19; G. nepenthes-Gr siakensis to Gr tumida- Sphaeroidinellopsis subdehiscens zones))

Santy, L.D. (2016)- The Mesozoic source rock identification in Tomori Basin, East Arm of Sulawesi and its implication for petroleum play. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from-where to, Indon. Petroleum Assoc. (IPA), Jakarta, 28-TS-16, p. 1-19.
(Tomori Basin at S side of East arm of Sulawesi is Miocene foreland basin in collision zone between Sundaland/ E Sulawesi Ophiolite and Banggai-Sula microcontinent. Source rock analysis of onshore E Sulawesi Mesozoic Tokala, Nanaka and Tetambahu shales show hydrocarbon source potential: TOC 0.32- 3.46% and mainly type III kerogen. Rock-eval Tmax measurements suggests immature to marginally mature (428- 432°C), but vitrinite reflectance Ro 0.56- 0.76%) and TAI data (2-2.5) suggest sediments early mature to peak mature)

Santoso, B. & Subagio (2016)- Pendugaan mineral kromit menggunakan metode Induced Polarization (Ip) di daerah Kabaena Utara, Bombana Sulawesi Tenggara. J. Geologi Sumberdaya Mineral 17, 3, p. 179-192.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/17/11)
('Prediction of chromite minerals using Induced Polarization (Ip) method in the area of North Kabaena, Bombana, SE Sulawesi'. In N Kabaena island chromite present in Cretaceous ultramafic peridotites and as alluvial deposits. Electric methods used to predict distribution)

Sapiie, B., M.A. Nugraha, R. K. Wardana & A. Rifiyanto (2017)- Fracture characteristics of melange complex basement in Bantimala Area, South Sulawesi, Indonesia. Indonesian J. Geoscience 4, 3, p. 121-141.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/405/242)
(Analysis of fractures in Pre-Tertiary melange complex of Bantimala area South Sulawesi, Indonesia. Common fracture orientations NW-SE, W-E, NNE-SSW and ENE-WSW, different in each lithology. Fracture intensity in schists higher than other lithologies)

Saputro, S.P. & B. Priadi (2016)- Penyebab serta sumber high-K pada batuan volkanik dan plutonik di Tana Toraja, Sulawesi Selatan bagian utara: terkait kerak, evolusi magma, dan rezim tektonik. In: R. Hidayat et al. (eds.) Proc. 9th Seminar Nasional Kebumian, Dept. Teknik Geologi, Gadjah Mada University, Yogyakarta, p. 412-420.
(online at: https://repository.ugm.ac.id/273523/)
('Causes and sources of high-K in volcanic and plutonic rocks in Tana Toraja, N part of South Sulawesi: associated crust, magma evolution and tectonic regime'. Mio-Pliocene high-K volcanics and plutonics in Tana Toraja area, S Sulawesi, formed in post-subduction tectonic regime, with magma interacting with crust, creating 'continental affinity')

Sarmili, L., D. Indriati & T. Stiawan (2016)- Proses sedimentasi Cekungan Bone berdasarkan penafsiran seismik refleksi di perairan Teluk Bone, Sulawesi Selatan. J. Geologi Kelautan 14, 1, p. 37-52.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/338/267)
('Sedimentation processes in Bone Basin, based on interpretation of seismic reflection in waters of Bone Bay, South Sulawesi'. Deep marine Bone Basin between S and SE arms of Sulawesi formed in Paleogene-Neogene. Initial Bone Basin formed by Cretaceous subduction, then developed as intra-montane basin. May be underlain by oceanic crust in Paleogene. Quaternary deposits influenced by reactivation of Walanae Fault. Six main seismic sequences A-F. Unit B Oligocene limestone, Unit C Late Oligocene- E Miocene volcanics, etc.)

Sarsito, D.A., Susilo, W.J.F. Simons, H.Z. Abidin, B.Sapiie, W. Triyoso & H. Andreas (2017)- Newly velocity field of Sulawesi island from GPS observation. Proc. Int. 6th Symposium on Earth hazard and disaster mitigation (ISEDM) 2016, AIP Conf. Proc. 1857, 1, 040005, p. 1-6.

(New GPS velocity observations in agreement with previous results : CW rotation of North Arm, Tomini Gulf opening and left-lateral strike slip of Palu-Koro fault. SW Sulawesi moves as part of Eurasian-Sunda Block with some compression at Makassar Straits (6.25mm/yr to W). Palu-Koro Fault rapid strike slip faulting)

Sarsito, D.A., Susilo, W.J.F. Simons, H.Z. Abidin, B.Sapiie, W. Triyoso & H. Andreas (2017)- Rotation and strain rate of Sulawesi from geometrical velocity field. Proc. Int. 6th Symposium on Earth hazard and disaster mitigation (ISEDM) 2016, AIP Conf. Proc. 1857, 1, 040006, p. 1-6.
(Sulawesi characterized by rapid rotation in several different domains and compression-strain pattern varies depending on type and boundary conditions of microplate)

Sartono, S., K.A.S. Astadiredja & H. Murwanto (1991)- East Arm Sulawesi: Banggai microplate- Sunda subduction zone collision. Proc. 20th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, p. 376-395.
(Review of E Sulawesi stratigraphy and early tectonic scenario for Sulawesi. Accepts presence of Permo-Carboniferous rocks in E Sulawesi. Pretertiary rocks in E Sulawesi (with ophiolite) and Banggai Sula (with pink granites) similar age range, but seem to be of different origin. Several tectonic melange complexes (incl. Cretaceous) and olistostromes)

Sartono, S., I. Hendrobusono, B. Suprapto & H. Murwanto (1989)- Sedimen lengseran gravitasi Eosen-Miosen bawah di Tana Toraja, Sulawesi Selatan (Indonesia). Proc. 18th Ann. Conv. Indon. Assoc. Geol. (IAGI), Yogyakarta, p.
('Eocene- Lower Miocene gravity sedimentation in Tana Toraja, South Sulawesi (Indonesia)')

Sendjaja, P. (2013)- Petrologi dan geokimia batuan volkanik di Kepulauan Togean, Teluk Tomini, Propinsi Sulawesi Tengah: implikasinya terhadap tatanan tektonik Pulau Sulawesi. Ph.D. Thesis, Inst. Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Petrology and geochemistry of volcanic rocks in Togean Islands, Tomini Bay, Central Sulawesi: implications for the tectonic structure of Sulawesi'. Volcanic rocks from Togean Islands 3 types:(1) Una-Una (adakitic subduction volcanics from partial melting of Celebes Sea slab at 70-85 km depth), (2) Togean (both adakites, basaltic-trachyandesite and result of partial melting of Sulawesi Sea slab in amphibole-eclogite zone) and (3) Walea (tholeitic basaltic-andesite and tholeite basalt, interpreted as upper part of ophiolite, formed around 6 Ma from seafloor spreading due to rollback of oceanic crust of Banggai-Sula microcontinent)

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, K. Yonemura, A. Yoshimoto (2016)- Prograde and retrograde evolution of eclogites from the Bantimala Complex in South Sulawesi, Indonesia. J. Mineralogical Petrological Sci. 111, 3, p. 211-225.
(online at: https://www.jstage.jst.go.jp/article/jmps/111/3/111_150907/_pdf)
(Evolution of high-P metamorphic rocks from Bantimala Complex, S Sulawesi))

Setiawan, N.I., Y. Osanai, N. Nakano, T. Adachi, K. Yonemura, A. Yoshimoto, L.D. Setiadji, K. Mamma & J. Wahyudiono (2013)- Geochemical characteristics of metamorphic rocks from South Sulawesi, Central Java, and South and West Kalimantan in Indonesia. Asean Engineering J. C, 3, 1, p. 107-127.
(online at: www.seed-net.org/wp-content/uploads/2015/12/GEOCHEMICAL-CHARACTERISTIC...)
(same paper as Setiawan et al. 2013)

Shaban, G., F. Fadlin & B. Priadi (2016)- Geochemical signatures of potassic to sodic Adang Volcanics, Western Sulawesi: implications for their tectonic setting and origin. Indonesian J. Geoscience 3, 3, p. 197-216.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/344/226)
(Adang Volcanics ~400m thick series of (ultra-) potassic- sodic lavas and tuffs of mainly trachytic composition, part of widespread Late Cenozoic (latest Miocene- E Pliocene) high-K volcanics in W Sulawesi. Tectonic setting and origin debated. Major rock forming minerals leucite, diopside/aegirine and high T phlogopite. Geochemistry suggests formation in post-subduction, continental rift tectonic setting)

Sidarto (2008)- Sesar barat laut- tenggara di daerah Mamuju dan sekitarnya dan hubungannya dengan pembentukan Cekungan Karama. J. Sumber Daya Geologi 18, 2, p. 89-105.

(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/241/220)
('NW-SE in the Mamuju area and surroundings and its relationship to the formation of the Karama Basin'. In SW Sulawesi four parallel NW-SE trending faults: Budong-budong, Talondo, Keang and Adang. Dextral faults in E Tertiary, but sinistral in Miocene-Pliocene. Karama Basin between Budong-budong and Talondo faults contains Eocene trangressive sedimentary rocks and probably step over basin of in E Tertiary)

Soehaimi, A & D. Muslim (2013)- Seismotectonics of the Palu-Kuro active fault and analysis of the disappearance of megalith cultures from central Sulawesi island. In: Proc. 49th Annual Session Coord. Comm. Geoscience Progr. E and SE Asia (CCOP), Sendai, p. 75-81.
(online at: www.ccop.or.th/download/as/52as2.pdf)

Sudradjat, A. (1982)- Geologi Lembah Palu Sulawesi Tengah dengan menggunakan teknik penginderaan jauh. Masters Thesis Inst. Teknologi Bandung (ITB), p. *(Unpublished)*
('Geology of the Palu valley, Central Sulawesi, using remote sensing techniques'. Palu-Koro Valley 250 km long, is reflection of sinistral Palu-Koro strike slip fault, with active movement estimated at 2-3.5mm to 14-17 mm/ year, totaling 3.25 km. Palu-Koro fault separates two different terranes)

Sufriadin, A. Idrus, S. Pramuwijoyo, I.W. Warmada & A. Imai (2011)- Study on mineralogy and chemistry of the saprolitic nickel ores from Soroaka, Sulawesi, Indonesia: implication for the lateritic ore processing. J. Southeast Asian Applied Geol. (UGM) 3, 1, p. 23-33.
(online at: https://journal.ugm.ac.id/jag/article/viewFile/7178/5618)

Sufriadin, A. Jaya H.S. & A.M. Imran (2007)- Characteristic and the occurrence of coal deposits in Neogene Mandar Formation of West Sulawesi Province. Proc. Joint Conv. 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 387-394.
(Very thin layers (up to 15cm thick) and lenses of Late Miocene coals in Mandar Fm in Polaman Regency, westernmost Sulawesi. Mainly vitrinite (93.4-98.6 %), followed by inertinite (1.2- 3.0 %). Vitrinite refectance Rmax 0.56-0.60%, indicating high volatile bituminous coal rank)

Sukadana, I.G., A. Harijoko & L.D. Setijadji (2015)- Tataan tektonika batuan gunung api di Komplek Adang, Kabupaten Mamuju, Provinsi Sulawesi Barat. Eksplorium 36, 1, p. 31-44.
(online at: http://jurnal.batan.go.id/index.php/eksplorium/article/view/2769/pdf)
('Tectonic setting of Adang Volcanic Complex in Mamuju Region, West Sulawesi Province '. Adang volcanic complex in W Sulawesi subdivided into seven complexes. K-Ar ages ~5.4 (sanidine)- 2.4 Ma (biotite). Basic-intermediate alkaline volcanics with high radioactivity. Volcanic center and several lava domes, composed of phonolite to dacite rock, with ultrapotassic affinity, formed in active continental margin and influenced by SW Sulawesi micro-continental crust (see also Shaban et al. 2016, suggesting rift volcanism))

Sukadana, I.G. & F.D. Indrastomo (2016)- Radioactive mineral occurrences on submarine alkaline volcanic rocks in West Tapalang, Mamuju, West Sulawesi, Indonesia. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 260-262.
(High concentrations of radiometric U and Th in Mamuju area, W Sulawesi, in ultrapotassic, leucite-bearing (Pliocene?) basaltic- intermediate Adang Volcanics. Three volcanic domes, probably submarine volcanism; submarine flanks of volcano dominated by erosive-depositional and mass-wasting features)

Suliantara & T. Susantoro (2015)- Hydrocarbon potential of Tolo Bay Morowali Regency: qualitative analysis. Scientific Contr. Oil and Gas, Lemigas, Jakarta, 38, 1, p. 13-24.
(online at: www.lemigas.esdm.go.id/publikasi/read/scientific/1/)
(Tolo Bay E of East Sulawesi, with water depth of up to 3500m. Part of Banggai Basin and within Late Cretaceous - M Miocene collision zone between Banggai-Sula Microcontinent and E Sulawesi. Drift phase sediment at front of Banggai-Sula Microcontinent is potential source and reservoir rock. Hydrocarbon exploration very risky)

Supardi, N., A.M. Imran & M. Farida (2014)- Lingkungan pengendapan batuan karbonat Formasi Tonasa pada daerah Karama Kecamatan Bangkala Kabupaten Jeneponto, Provinsi Sulawesi Selatan. J. Penelitian Geosains (Hasanuddin University) 10, 2, p. 58-67.
(online at: http://repository.unhas.ac.id/bitstream/handle/123456789/15298/)
('Depositional environment of Tonasa carbonate rock formations in the Karama area, District of Bangkala, Jeneponto, South Sulawesi Province'. Outcrop of M Eocene Tonasa Fm marl dominated section with limestone interbeds at S-most tip of S Sulawesi deemed to be deposited in middle shelf environment)

Suratman (2000)- Geology and nickel-laterite weathering deposit in the southeast arm of Sulawesi. Berita Sedimentologi 14, p. 12-15.
(Nickel laterite in E Sulawesi derived from chemical weathering of ultrabasic rocks)

Surono & D. Sukarna (1993)- Geology of the Sanana Sheet, Maluku, scale 1:250,000. Geol. Res. Dev. Centre (GRDC), Bandung.
(Geology of eastern Banggai-Sula Islands, SE of E Sulawesi (E Taliabu, Mangole, Sanana). Oldest formation ?Carboniferous metamorphics and ?Permo-Triassic Banggai granite intrusives with >400m thick co-magmatic Mangole Fm volcanic breccias and tuffs. Small occurrence of ~50-100m thick Triassic? Nofanini Fm coral-mollusc limestone off S coast of Mangole. Unconformably overlain by thick M-L Jurassic Bobong and Buya Fms with common ammonites, and Late Cretaceous Tanamu Fm Globotruncana marl-limestone)

Sutadiwiria, Y., Yeftamikha, A.H. Hamdani, Y. Andriana, I. Haryanto & E. Sunardi (2017)- Origin of oil seeps in West Sulawesi onshore, Indonesia: geochemical constraints and paleogeographic reconstruction of the source facies. J. Geol. Sciences Applied Geology (UNPAD) 2, 1, p. 10-15.
(online at: http://jurnal.unpad.ac.id/gsag/article/view/13420/7373)
(Numerous oil- gas seeps onshore W and S Sulawesi, but no discoveries so far in area. Biomarkers indicate coals and/or coaly shales as source, with some marine input in Karama region to S. Best candidate for source of oil seeps is Eocene Toraja or Kalumpang Fm. Maturities at generation equivalent with Ro 0.8-1.0 %)

Syafri, I. (2004)- Komposisi kimia eklogit dan batuan bergarnet- berglaukofan dari kompleks Bantimala Sulawesi Selatan, Indonesia serta kemungkinan jenis- jenis batuan asalnya. Bull. Scientific Contribution 2, 2, p. 50-60.
('The chemical composition of eclogite and garnet-glaucophane rocks of the Bantimala complex, S Sulawesi, Indonesia and their possible origin')

Syafrizal, K. Anggayana & D. Guntoro (2011)- Karakterisasi mineralogi endapan nikel laterit di daerah Tinanggea, Kabupaten Konawe Selatan, Sulawesi Tenggara. J. Teknologi Mineral 18, 4, p. 211-220.
('Characterization of mineralogy of a lateritic nickel deposit in the Tinanggea area, South Konawe Regency, Southeast Sulawesi'. Lateritic nickel from advanced weathering of Ni-silicate bearing ultramafic rock)

Syafrizal, T.A. Rivai, K. Yonezu, D. Kusumanto, K. Watanabe & A.N.H. Hede (2017)- Characteristics of a low-sulfidation epithermal deposit in the River Reef Zone and the Watuputih Hill, the Poboya gold prospect, Central Sulawesi, Indonesia: host rocks and hydrothermal alteration. Minerals 7, 124, p. 1-16.
(online at: www.mdpi.com/2075-163X/7/7/124/pdf-vor)
(Gold mineralization hosted in granite, biotite gneiss and biotite schist of Palu Metamorphic Complex)

Szentpeteri, K., G. Albert & Z. Ungvari (2015)- Plate tectonic and stress-field modelling of the North Arm of Sulawesi (NAoS), Indonesia, to better understand the distribution of mineral deposit styles. In: Proc. SEG 2015 Conf. World class ore deposits: discovery to recovery, Hobart. *(Abstract and Poster)*
(N Arm of Sulawesi with 4 active gold mines. Three oceanic plates subducting under N Arm. Molluca and Celebes plates dip opposite to each other, Sangihe plate at right angles to other two. Variations in subducting plates marked by breaks in morphology and earthquake intensity, corresponding to arc-transform structures in upper plate. N Arm and Tomini and Gorontalo Bays in extensional regime (incl. uplifts of metamorphic core complexes), possibly tied to slab detachment and/or rollback of Sulawesi Trench. Young (5-1 Ma) Au-Cu

mineralized districts in N Arm related to extensional features and intersections with transtensional arc normal faults (which may extend as tear faults on lower, opening window to mantle))

Villeneuve, M., W. Gunawan, O. Bellier, H. Bellon, J.J. Cornee, R. Martini & J.P. Rehault (2013)- Multiple collisions in Sulawesi Island and relationships with the geodynamical evolution of eastern Indonesia. In: 2nd Southeast Asian Gateway evolution Meeting (SAGE 2013), Berlin, p. 177. *(Abstract only)*
(Three small NE Gondwanan blocks from E or SE collided with W and N Arms of Sulawesi, at W-dipping subduction zone(s): (1) Late Oligocene- E Miocene 'Kolonodale Block', tectonically capped by large ophiolite; (2) M Miocene 'Lucipara Block' collision with Kolonodale Block; (3) M Pliocene 'Banggai-Sula Block'. Kolonodale Block strikingly similar to Timor; Lucipara and Banggai-Sula blocks similar to Birds Head)

White, L.T., R. Hall & R.A. Armstrong, A.J. Barber, M.K. BouDagher-Fadel, A. Baxter, K. Wakita, C. Manning & J. Soesilo (2017)- The geological history of the Latimojong region of western Sulawesi. J. Asian Earth Sci. 138, p. 72-91.
(Latimojong Metamorphic Complex in C-W Sulawesi is accretionary complex of metamorphic rocks tectonically mixed with cherts and ophiolitic rocks, overlain(?) by unmetamorphosed U Cretaceous Latimojong Fm distal turbidites (accretionary complex). Aptian-Albian radiolaria in chert float sample in Latimojong Metamorphic Complex. Foraminifera ages from Toraja Group (56-23 Ma), Makale Fm (20.5-11.5 Ma) and Enrekang Volcanic Series (8.0-3.6 Ma). Magmatic zircons record ~38, ~25 and 8.0-3.6 Ma phases of volcanism. Late Miocene- E Pliocene high-K Enrekang Volcanics (~ 3.9-7.5 Ma) and Palopo Granite (6.6-4.9 Ma) may be tied to crustal extension/ slab rollback. Miocene-Proterozoic inherited zircons in Pliocene igneous rocks support Proterozoic-Phanerozoic (193, 38-34 Ma) basement or sediments derived from these. Little evidence for Oligocene-Pliocene thrusting in Latimojong region)

Wibowo, S., M.F. Rosana & A.D. Haryanto (2017)- Implication of fracture density on unserpentinized ultramafic rocks toward characteristics of saprolite zone in Sorowako, South Sulawesi. Bull. Scientific Contr. (UNPAD) 15, 2, p. 101-110.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/13375/pdf)
(Nickel grades reach maximum in saprolite zones. Fracture density in ultramafic bedrocks played important roles during laterisation. In Sorowako ultramafic complex of East Sulawesi Ophiolite Complex high-medium fractured types of bedrock tied to thick saprolite zone)

Widodo, S., Sufriadin, A. Imai & K. Anggayana (2016)- Characterization of some coal deposits quality by use of proximate and sulfur analysis in the Southern Arm Sulawesi, Indonesia. Int. J. Engineering and Science Applications (UNHAS) 3, 2, p. 137-143.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/1085/233)
SW Sulawesi coal deposits at Paluda, Padanglampe, Lamuru and Tondongkura. Lower moisture of Paluda coal might be affected by igneous intrusion. Coal samples generally high ash (29%) and sulfur(3.74.%). No vertical distribution trend for ash and sulfur)

Yamamoto, M., A. Maulana, K. Yonezu, K. Watanabe & A. Subehan (2015)- Geochemistry and mineralization characteristic of Sungai Mak deposit in Gorontalo, Northern Sulawesi, Indonesia. Int. J. Engineering and Science Applications (UNHAS) 2, 2, p. 99-105.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/154/109)
(Gold-copper mineralization associated with granodiorite of Sungei Mak in Gorontalo similar to other porphyry copper deposit(s) in Tombolilato District (>3400m thick Late Miocene- Pleistocene island arc-type volcano-sedimentary pile)

Zaccarini, F., A. Idrus & G. Garuti (2016)- Chromite composition and accessory minerals in chromitites from Sulawesi, Indonesia: their genetic significance. Minerals 6, 46, p. 1-23.
(online at: www.mdpi.com/2075-163X/6/2/46/pdf)
(Chromite from S and SE Arms of Sulawesi varies from Cr-rich to Al-rich. Small platinum-group minerals (PGM) in chromitites mainly laurite. Accumulation of Cr-rich chromitites probably at deep mantle level, Al-rich chromitites close or above Moho-transition zone. All laurites considered to be magmatic in origin)

Zaitun, S., D.H. Amijaya, J. Setyowiyoto & A.H. Satyana (2016)- Oil classification and genetic type of gas in Tiaka, Matindok, Donggi, Senoro fields and surrounding area in Banggai Basin, Central Sulawesi. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 509-523.
(Tiaka offshore oil field and Matindok, Minahaki, Donggi and Senoro onshore gas fields Banggai Basin, E Sulawesi, sourced from Tertiary (high oleanane). Two oil types, A and B, generated from marine carbonate and shale source rocks. Senoro gas thermogenic, formed from secondary cracking. Matindok gas thermogenic, generated from mixed gas source and the most mature gas)

V.2. Buton, Tukang Besi (5)

Arifin, L. & T. Naibaho (2015)- Struktur geologi Pulau Buton Selatan. J. Geologi Kelautan 13, 3, p. 143-151.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/269/259)
('Geological structure south of Buton island'. Shallow reflection seismic lines in waters S of Buton and Muna)

Arisona, A., M. Nawawi, U.K. Nuraddeen & M. Hamzah (2016)- A preliminary mineralogical evaluation study of natural asphalt rock characterization, southeast Sulawesi, Indonesia. Arabian J. Geosciences 9, 272, 9p.
(Bitumen content of 'Asbuton' 10-40%. Geoelectrical resistivity survey and x-ray fluorescence shows Ca is dominant element in asphalt rock (40-90%), indicating limestone (surprise!))

Okhotnikova, E.S., Y.M. Ganeeva, E.E. Barskaya, G.V. Romanov, T.N. Yusupova et al. (2016)- Composition and physicochemical properties of natural bitumen from the Pasar Wajo deposit (Indonesia). Petroleum Chemistry 56, 8, p. 677-682.
(Bitumen from Pasar Wajo, Buton island classified as asphalt. Low concentrations of sulfur and trace elements and lack of normal-chain hydrocarbons)

Pedoja, K., L. Husson, A. Bezos, A.M. Pastier, A.M. Imran, C. Arias-Ruiz, A.C. Sarr, M. Elliot et al. (2018)- On the long-lasting sequences of coral reef terraces from SE Sulawesi (Indonesia): distribution, formation, and global significance. Quaternary Science Reviews 188, p. 37-57.
(Late Cenozoic coral reef terraces identified on 23 islands of Tukang Besi and Buton archipelagos. Reef terrace sequences from Wangi-Wangi (Buton) and islands of Ular, Siumpu and Kadatua with terraces from last interglacial maximum (MIS 5e; ~122 ka) at elevations <20m, at 34m on W Kadatua. On SE Buton reef terraces up to 650m, with >40 undated strandlines. On Sampolawa Peninsula 18 strandlines up to 430m, possibly as old as 3.8 ± 0.6 Ma)

Soeka, S. (1988)- Late Jurassic (Upper Tithonian) radiolaria from Buton Island, Indonesia. In: Workshop on Radiolaria 1988, University of Auckland, 25p.

VI. NORTH MOLUCCAS (39)

VI.1. Halmahera, Bacan, Waigeo, Molucca Sea (16)

Baillie, M.C. & G.C. Cock (2001)- Weda Bay nickel/cobalt project- resource definition and the development of a project concept. Proc. Indonesia Mining Conf. Exhibition, Jakarta, p. 2B1-2B22.

Bering, D. (1986)- The exploration of the Kaputusan copper-gold porphyry (Bacan Island, Northern Moluccas). Federal Inst. Geosciences Natural Resources (BGR), Hannover, Report 099386, p. 1-140.
(Kaputusan copper-gold porphyry mineralization discovered on Bacan during joint Indonesian-German (BGR) regional exploration program in late 1970's, with follow-up exploration work by BGR in 1983-1984. Hosted by Miocene tonalite porphyry stocks)

Clark, L.V. & J.B. Gemmell (2018)- Vein stratigraphy, mineralogy, and metal zonation of the Kencana low-sulfidation epithermal Au-Ag deposit, Gosowong goldfield, Halmahera Island, Indonesia. Economic Geology 113, 1, p. 209-236.
(Kencana Au-Ag low-sulfidation epithermal deposit in Neogene magmatic arc of NW Arm of Halmahera, with resource of 4 Moz Au. Part of the Gosowong Goldfield, with Gosowong and Toguraci deposits. NW arm of Halmahera composed of four superimposed volcanic arcs. Epithermal mineralization in Pliocene Gosowong Fm of volcaniclastic rocks, ignimbrites, andesitic flows and diorite intrusions. Andesite emplacement at 3.73 Ma followed by diorite intrusion at ~3.50 Ma. Kencana epithermal mineralization at ~ 2.93 Ma)

Coupland, T., D. Sims, V. Singh, R. Benton, D. Wardiman & T. Carr (2009) Understanding geological variability and quantifying resource risk at the Kencana underground gold mine, Indonesia. Seventh Int. Mining Geology Conference, Australasian Inst. Mining Metallurgy (AusAIMM), Melbourne, p. 169-186.
(Kencana underground gold mine on Halmahera with two large epithermal vein deposits. Rel. simple planar geometry, dipping 25 to 45° to East and extend 400-600 m along strike and down dip. True width 1-20m)

Electricia, K.S., M.F. Rosana, E.T. Yuningsih, I. Syafri & S.N. Viqnoriva (2017)- Quartz vein infill structure mode in Kencana deposit, Gosowong goldfield, Indonesia. Bull. Scientific Contr. (UNPAD) 15, 1, p. 35-44.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/11743/pdf)
(Gosowong gold-siver mine on Halmahera is low sulphidation epithermal veining system, hosted in Quaternary andesitic volcanics. Kencana epithermal vein system two main sub-parallel NW trending vein zones)

Finch, E.M. & S.J. Roberts (1993)- An integrated Tertiary biozonation scheme for the Halmahera region, Eastern Indonesia. In: T. Thanasuthipitak (ed.) Int. Symposium Biostratigraphy of mainland Southeast Asia: facies and paleontology (BIOSEA), Chiang Mai 1993, p. 455. *(Abstract only)*
(Outcrop samples from Halmahera includes E-M Eocene volcanoclastics. Late M Eocene (45 Ma) regional unconformity, overlain by Late Eocene limestones and Oligocene volcanoclastics. Second regional unconformity at ~25 Ma, marking arc-Australian continent collision. Halmahera arc initiated in Late Miocene)

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7202, Halmahera Arc, North Molucca Islands- Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rep. 2010-5090-D, Appendix K, p. 175-185.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in ~400 km long Neogene Halmahera island arc, along western parts of Morotai, Halmahera, Bacan, Obi, etc. With Kaputusan porphyry copper deposit on Bacan (with 77 Mt at 0.33% copper and 0.25 g/t gold; exact age unknown))

Hase, T., K. Yonezu, T. Tindell, Syafrizal & K. Watanabe (2015)- Mineralization characteristics of the Kencana deposit, Gosowong mining area, Halmahera, Indonesia. Proc. IGC 2015 (2nd Int. Conf. and 1st Joint Conf. Fac. Geology Universitatas Padjadjaran and Fac. Sci. Nat. Res. University Malaysia Sabah), p. 205-212.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/Mineralization-Characteristics-of-the-Kencana-deposit.pdf)

(Gosowong gold mining area in N-C Halmahera with three deposits: Gosowong (1994), Togurachi (2000) and Kencana (2003). Kencana deposit three veins in Neogene andesites of Halmahera volcanic arc; classified as low-sulfidation Au-Ag epithermal deposit with chalcopyrite, electrum, Au-Ag-Te minerals, galena, sphalerite)

Kusworo, A., L.D. Santy & A.J. Widiatama (2017)- Karakteristik ichnofosil pada endapan turbidit karbonat-silisiklastik Formasi Weda, Pulau Halmahera. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
('Characteristics of ichnofossil in carbonate-siliciclastic deposits of the Weda Formation, Halmahera Island'. Two deep marine trace fossils associations in 60m of Late Miocene Weda Fm turbiditic series in Lili River: Thalassinoides and Zoophycos-Chondrites)

Permanadewi, S., J. Wahyudiono & A. Tampubolon (2017)- Cebakan nikel laterit di Pulau Gag, Kabupaten Raja Ampat, Provinsi Papua Barat. Bul. Sumber Daya Geologi 12, 1, p. 55-70.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Lateritic nickel deposit on Gag Island, Raja Ampat Regency, West Papua Province'. Lateritic nickel (Ni, Co, Fe) deposits cover 2/3 of Gag island, derived from weathering of ultramafic rocks (serpentinite, harzburgite and pyroxenite). Ophiolite complex oceanic crust tectonically emplaced onto continental margin and island arc. Secondary nickel ore garnierite. Lateritic zone with 1.2% Ni. Iron >30% Fe in limonitic layer)

Priadi B., H. Permana, R. Binns & I. Zulkarnain (2006)- Maselihe Volcano: a new discovery submarine volcano in the Sangihe Arc, Eastern Indonesia. Volcano International Gathering, Yogyakarta 2006, p.

Prihatmoko, S., H. Lubis & E. Suherman (2014)- Mineral district of Bacan Island, North Maluku: geology and gold-copper exploration status. Majalah Geol. Indonesia 29, 3, p. 199-224.
(Bacan islands SSW of Halmahera several tectonic domains and magmatic arcs since pre-Eocene. Incl. Eocene-E Miocene Bacan Fm volcanic arc (N-ward subduction of Australian Plate under Philippine Sea Plate). Collision of Australian continental fragment (Sibela Metamorphics) with volcanic arc in M Miocene. Late Miocene- Pliocene Kaputusan Fm arc volcanics, produced by E-ward subduction of Molucca Sea Plate under Halmahera, and Quaternary volcanics. Mineralization types in Bacan Fm include porphyry copper-gold, skarn metasomatism and polymetallic veins. High-sulphidation epithermal mineralization in Kaputusan Fm)

Purwanto, H.S. & S. Agustini (2014)- Lateritisasi nikel Pulau Pakal, Kabupaten Halmahera Selatan, Provinsi Maluku Utara. J. Ilmiah Magister Teknik Geologi (UPN) 7, 1, p..
(online at: http://jurnal.upnyk.ac.id/index.php/mtg/article/view/268/231)
(Nickel lateritization of Pakal Island, South Halmahera Regency, North Maluku Province'. Nickel laterite study in weathered ultramafic rocks in S part of Pakal island. Weathering of non-serpentinized rocks faster than serpentinites. Enriched Ni >1.5 % in saprolite zone and transition zone)

Silitonga, D. (2013)- Characteristics of Gosowong goldfields epithermal deposits. Proc. Indonesian Soc. Econ. Geol. (MGEI) Annual Conv. 2013, Papua & Maluku Resources, Bali, p. 115-124.

Sutisna, D.T., D.N. Sunuhadi, A. Pujobroto & D.Z. Herman (2006)- Perencanaan eksplorasi cebakan nikel laterit di daerah Wayamli Teluk Buli, Halmahera Timur sebagai model perencanaan eksplorasi cebakan nikel laterit di Indonesia. Bul. Sumber Daya Geologi 1, 3 p. 48-56.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/554)
(Planning of nickel laterite exploration in Wayamli area, Buli Bay, East Halmahera, as a planning model of laterite nickel exploration in Indonesia)

Yustiana, F., C. Zwach, D. Rahmalia & P.T. Allo (2016)- Halmahera Basin, Eastern Indonesia- hydrocarbon prospectivity in a frontier basin. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from-where to, Indon. Petroleum Assoc. (IPA), Jakarta, 34-TS-16, p. 1-23.
(Halmahera II PSC SE of Halmahera is in Tertiary deep water, undrilled frontier basin, now considered area with very high subsurface risk and lack of follow-up prospectivity. Basement most likely ophiolites and

volcanics. Potential Miocene carbonate buildups now interpreted to be Oligocene thrust complexes. Clastic reservoir provenance likely dominated by volcanic rocks. No indications of active hydrocarbon system)

Zhang, Q., F. Guo, L. Zhao & Y. Wu (2017)- Geodynamics of divergent double subduction: 3-D numerical modeling of a Cenozoic example in the Molucca Sea region, Indonesia. J. Geophysical Research, Solid Earth, 122, 5, p. 3977-3998.
(Molucca Sea subduction zone in NE Indonesia in SE Asia is unique Cenozoic example of 'divergent double subduction' (DDS). Asymmetrical shape. DDS probably associated with closure of narrow and short oceanic plate; large-scale double subduction is rare in nature)

VI.2. Banggai, Sula, Taliabu, Obi (6)

Ding, J., S.G. Zhang, Z.F. Xu & X.L. Qin (2011)- Geological and geochemical characteristics and genesis of the Sn-Fe polymetallic deposit in Taliabu Island, Indonesia. Acta Geoscientica Sinica 32, 3, p. 313-321. *(in Chinese, with English abstract)*
(online at: www.cagsbulletin.com/dqxbcn/ch/reader/create_pdf.aspx?file...)
(Large Sn-Fe polymetallic deposit in C Taliabu, Banggai-Sula islands, sourced from Triassic monzogranite derived from partial crustal melting. Mineralization in contact zone between granite and Carboniferous metasediments, including skarn type iron ore in contact with Carboniferous marble. Ore deposit belongs to E Australia metallogenic belt that moved to SE Asia)

Dipatunggoro, G. (2011)- Survey tinjau bahan galian nikel daerah Soligi, Kecamatan Obi Selatan, Kabupaten Halmahera Selatan, Maluku Utara. Bull. Scientific Contr. (UNPAD) 9, 2, p. 97-106.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8266/3813)
('Survey of nickel in Soligi area, South Obi, North Maluku'. Pretertiary ophiolite and metamorphics are oldest rock in W and S Obi Island. Nickel and cobalt-bearing laterite weathering zones at tops of hills)

Diria, S.A., W. Permono, J. Anwari, H. Purba & J.T. Musu (2017)- Uses of satellite gravity to map subsurface condition (case study : WK Sula II). Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 6p.
(Gravity modeling of E Sula basin area suggests E Sula (Taliabu) island on continental crust, with oceanic crust to N and S. Basement depth in block from -954 to -10245m, gradually deepening to S. E-M Jurassic rift fill clastics (Bobong Fm) in N-S trending grabens)

Ngadenin (2016)- Kajian geologi, radiometri, dan geokimia Granit Banggai dan Formasi Bobong untuk menentukan daerah potensial uranium di Pulau Taliabu, Maluku Utara. Eksplorium 37, 1, p. 13-26.
(online at: http://jurnal.batan.go.id/index.php/eksplorium/article/view/2669/pdf)
('Geological, radiometrical and geochemical studies of Banggai granites and Bobong Formation to determine potential uranium areas in Taliabu Island, North Maluku'. Late Permian-Triassic Banggai granite is potential uranium source, E-M Jurassic fluvial-deltaic sandstone of Bobong Fm is potential host rock)

Panjaitan, S. & Subagio (2014)- Pola anomali gayaberat daerah Taliabu- Mangole dan laut sekitarnya terkait dengan prospek minyak bumi dan gas. J. Geologi Kelautan 12, 2, p. 65-78.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/247/237)
('Gravity anomaly pattern of Taliabu- Mangole area and surrounding seas, related to oil and gas prospectivity')

Rahmalia, D., P.T. Allo, C. Zwach, R. Heggland & S.I. Midtbo (2017)- Hydrocarbon prospectivity in the South Obi Basin. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-119-G, 15p.
(Seismic data in deepwater basin between Obi and Bacan/ S Halmahera, formed as pull-apart basin along Sorong fault zone. Indications of Miocene Kais carbonate buildups and potential gas chimneys)

VI.3. Seram, Buru, Ambon (17)

Adlan, Q., J. Wahyudiono, A. Susilo, B. Salimudin, A.K. Gibran & E.S. Wiratmoko (2018)- Petroleum system potential of Lofin and Banggoi area, Seram Island. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-250-G, 6p.
(Brief review, showing highly variable porosity and TOC in Triassic Kanikeh Fm outcrop samples)

Al-Shaibani, S. (1983)- The micropalaeontology of the Middle Triassic to Upper Miocene sediments of Seram, Eastern Indonesia. Ph.D. Thesis Imperial College, University of London, p. 1-469.
(online at: https://spiral.imperial.ac.uk/handle/10044/1/36159)
(Planktonic Foraminifera of Nief Beds indicate deposition during Cretaceous, Paleocene, Eocene and Miocene in deep bathyal environment. Corroded radiolaria in U Jurassic- Lower Cretaceous part of Nief Beds indicate deposition close to compensation depth for silica at ~4000 m. Fine grain-size and radiolaria-dominated

microfauna of Saman Saman Lst indicate deposition in very deep marine water. Microfaunas of Late Triassic Asinepe Lst reveal deposition during Norian in reefal- sublagoonal environment)

Everwijn, R. (1874)- Marmer op het eiland Amboina. Jaarboek Mijnwezen Nederlandsch Oost-Indie 3, 1, p. 172-173.
('Marble on Ambon Island'. Brief note on samples of light grey, grey and black marble. Age unknown)

Hall R., A. Patria, R. Adhitama, J.M. Pownall & L.T. White (2017)- Seram, the Seram Trough, the Aru Trough, the Tanimbar Trough and the Weber Deep: a new look at major structures in the eastern Banda Arc. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-91-G, 19p.
(Seram Trough began to form in Late Pliocene due to loading by Seram fold-thrust belt. Tanimbar Trough originated in Late Miocene as elongate extensional structure within Australian continental margin. Weber deep is major young extensional feature. None of troughs are subduction zones. Etc.)

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7201, Ambon Arc, Central Molucca Islands- Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rep. 2010-5090-D, Appendix J, p. 164-174.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in Pliocene-Quaternary Ambon island arc. Two suites of island-arc magmas: (1) 5- 3.2 Ma, low-K calc-alkaline basalts, andesites, dacites and rhyolites, evolved from basaltic magmatism from mantle melting above W Irian Jaya Plate as it subducts along Seram Trough; (2) 2.3-1 Ma, high-K calc-alkaline andesites, dacites, rhyolites and granites (incl. ambonites= cordierite-bearing dacites) and granites, representing magmas that assimilated continental crust. Hila porphyry Cu-Au prospect on Ambon Island (3.6 Ma))

Kusnida, D., T. Naibaho & Y. Firdaus (2016)- Depositional modification in Seram Trough, Eastern Indonesia. J. Geologi Sumberdaya Mineral 17, 2, p. 99-106.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/22/22)
(Seismic profiles at Seram Trough show avalanches of Pliocene- Quaternary base-of slopes material in front of Seram accretionary prism)

Martin, K. (1901)- Reise Ergebnisse aus den Molukken. Centralblatt Mineralogie Geologie Palaont. 1901, p. 460-464.
(online at: www.biodiversitylibrary.org/item/196149#page/379/mode/1up)
('Travel results from the Moluccas'. Summary of geological observations on Seram. No figures. More detail in Martin (1903))

Noor, M.K., A. Tonggiroh & A. Maulana (2016)- Type of gold hydrothermal deposits on metamorphic rock, District Buru, Province Maluku. Int. J. Engineering and Science Applications (UNHAS) 3, 1, p. 39-45.
(online at: http://pasca.unhas.ac.id/ojs/index.php/ijesca/article/view/276/160)
(Gold-bearing quartz veins in greenschist facies metamorphic rocks (muscovite schist and phyllite; probably metasediments) at Gunung Botak, Buru, reflect epithermal- high sulphidation gold mineralization)

Patria, A. & R. Hall (2017)- The origin and significance of the Seram Trough, Indonesia. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-19-G, p. 1-19.
(Seram Trough commonly interpreted as accretionary wedge/ subduction zone beneath Seram, but is shallower than typical subduction zone and marks deformation front of fold-thrust belt resulting from young oblique convergence between Outer Banda arc and Birds Head. Fold-thrust belt zone narrower in W (with thrusting cesing thrusting ceases at E edge of Buru oceanic basin) and widens to SE. Thrusting at the trough started in Late Pleistocene)

Pownall, J.M. (2015)- UHT metamorphism on Seram, eastern Indonesia: reaction microstructures and P-T evolution of spinel-bearing garnet-sillimanite granulites from the Kobipoto Complex. J. Metamorphic Geol. 33, 9, p. 909-935.
(Seram Kobipoto Metamorphic Complex with Mio-Pliocene granulite facies migmatites and less common granulites. Migmatites associated with ultramafic rocks of lherzolitic composition, exhumed by lithospheric extension beneath low-angle detachment faults. Post-peak evolution of granulites may be related to published U-Pb zircon and 40Ar/39Ar ages of ~16 Ma. Kobipoto Complex granulites demonstrate how UHT conditions may be achieved by extreme lithospheric extension, in this case driven by slab rollback of Banda Arc)

Pownall, J.M., R.A. Armstrong, I.S. Williams, M.F. Thirlwall, C.J. Manning & R. Hall (2018)- Miocene UHT granulites from Seram, eastern Indonesia: a geochronological-REE study of zircon, monazite and garnet. In: S. Ferrero et al. (eds.) Metamorphic geology: microscale to mountain belts, Geol. Soc. London, Spec. Publ. 478, p.
(Ultra-high T (>900°C) garnet-sillimanite granulites of Seram formed by extensional exhumation of hot mantle rocks behind rolling-back Banda Arc. Miocene age confirmed by ~16 Ma zircons and monazites U-Pb ages. These geochronometers date retrograde overprints. Zircons shielded within garnet with 216–173 Ma ages (Late Triassic- E Jurassic. UHT conditions very short-lived and very rapid exhumation of granulite complex)

Pownall, J.M., M.A. Forster, R. Hall & I.M. Watkinson (2017)- Tectonometamorphic evolution of Seram and Ambon, eastern Indonesia: insights from 40Ar/39Ar geochronology. Gondwana Research 44, p. 35-53.
(Two main phases in Seram Neogene tectonic evolution: (1) 16 Ma episode of extreme extension that exhumed hot lherzolites from subcontinental lithospheric mantle and drove UHT metamorphism and melting of adjacent continental crust (kyanite-grade metamorphic event of Tehoru Fm across W and C Seram); and (2) 5.7, 4.5 and 3.4 Ma episodes of extensional detachment faulting and strike-slip faulting that further exhumed granulites and mantle rocks across Seram and Ambon. Events interpreted to be result of W Seram ripping off from SE Sulawesi, extended, and dragged E by Banda Slab subduction rollback)

Pownall, J.M., R. Hall & R.A. Armstrong (2017)- Hot lherzolite exhumation, UHT migmatite formation, and acid volcanism driven by Miocene rollback of the Banda Arc, eastern Indonesia. Gondwana Research 51, p. 92-117.
(N Banda Arc (Seram) exposes upper mantle lherzolites and lower crust granulite facies migmatites of 'Kobipoto Complex'. Granulites experienced ultrahigh-T (> 900˚C) at 16 Ma due to heat supplied by lherzolites exhumed during slab rollback in Banda Arc. Ages of detrital zircons from Kobipoto Complex 3.4 Ga- 216 Ma, suggesting W Papua/ W Australian Archean protolith and post-Late Triassic metamorphism. Zircons in granulites 3 later growth episodes: 215-173 Ma (= subduction beneath Birds Head and Sula Spur?), 25-20 Ma (collision between Sula Spur and N Sulawesi?), and ~16 Ma. 16 Ma zircon rims grew during M Miocene metamorphism and melting of Kobipoto complex rocks beneath Seram under HT–UHT conditions. Extension during continued slab rollback exhumed both lherzolites and adjacent granulites beneath extensional detachment faults in W Seram at 6.0-5.5 Ma, and on Ambon at 3.5 Ma. Ambonites and dacites sourced mainly from melts generated in Kobipoto Complex migmatites erupted on Ambon from 3.0-1.9 Ma.)

Wahyudiono, J., A. Susilo, R. Adlan, B. Salimudin, A.K. Gibran & E.S. Wiratmoko (2018)- Integrated field mapping, organic chemistry and subsurface geological interpretation of Kanikeh Formation as potential source rock in Seram Island.Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-247-G, 6p.
(Outcrop samples of Kanikeh Fm clastics on Seram with Triassic (Carnian-Norian) Halobia spp. and gas-prone Type III kerogen. Analysis of seven oil samples from Oseil and Bula oil fields suggest no terrestrial organic source material; hydrocarbons from Type II marine algae in carbonate rocks deposited in reducting conditions)

Wichmann, C.E.A. (1898)- Der Wawani auf Amboina und seine angeblichen Ausbruche (parts 1-2). Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap (2), 15, p. 1-20 and p. 200-218.
('The Wawani on Ambon and its reported eruptions, parts 1-2)')

Wichmann, C.E.A. (1899)- Der Wawani auf Amboina und seine angeblichen Ausbruche (part 3). Tijdschrift Kon. Nederlands Aardrijkskundig Genootschap (2), 16, p. 109-142.

('The Wawani on Ambon and its reported eruptions, part 3'. Wawani mountain on Ambon with diabase and porphyric igneous rock, but is not a volcano)

Xi, Z., X. Hu, Y. Fang, X. Yin & H. Du (2016)- Tectonic evolution of North Seram Basin, Indonesia, and its control over hydrocarbon accumulation conditions. China Petroleum Exploration 21, 6, p. 1-8.
(online at: www.cped.cn/CN/item/downloadFile.jsp?filedisplay=20161230153808.pdf)
(N Seram Basin evolution interpreted as four stages: E Triassic initial rifting, M Triassic- M Jurassic rifting, Late Jurassic- M Miocene passive continental margin and Late Miocene-Quaternary thrusting of foreland foldbelt (Seram and Birds Head viewed here as part of same continental block; no subduction/collision))

VII. BANDA SEA, LESSER SUNDA ISLANDS (78)

VII.1. Banda Sea, East Banda Arc (incl. Tanimbar, Kai, Aru) (7)

Fitriannur, M.R. (2017)- A future play in a frontier area: deltaic systems of the Late Cretaceous play in the West Aru area at the Indonesia-Australia continental margin. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-106-G, 15p.
(Late Cretaceous (Campanian-Maastrichtian) progradational package in Barakan-Tanimbar (W Aru) margin. Late Cretaceous ('Ekmai') delta top sands without hydrocarbons penetrated by Barakan-1 and Koba-1 wells. Potential new hydrocarbon play)

Ogierman, J. (2016)- Discovery, geology and origin of the Lakuwahi volcanogenic Au-Ag-Pb-Zn deposit, Romang Island, eastern Indonesia. Proc. 8th Ann. Conv. Indonesian Soc. Economic Geol. (MGEI), Bandung, p. 76-79.
(Lakuwahu cluster of mineral deposits hosted by andesitic Lakuwahi Volcanics on S Romang near Wetar. Formed in shallow submarine caldera, subsequently covered by reefal limestones. Dominant Pb-Zn mineralization. Uplift in past 1-2Myr caused emergence of Romang Island)

Ohara, M., L.A. Perdana, A. Saputra, A. Himsari & M. Fujimoto (2016)- Neogene hydrocarbon prospectivity of the frontier offshore Tanimbar region in the southern Banda Arc, Eastern Indonesia. Proc. 40th Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA16-544-G, 16p.
(On hydrocarbon prospectivity in accretionary prism thrust structures in Timor Sea S of Babar)

Pownall, J.M., R. Hall & G.S. Lister (2016)- Rolling open Earthôs deepest forearc basin. Geology 44, 11, p. 947-950.
(Weber Deep 7.2-km-deep forearc basin in Banda Sea is deepest point of Earth’s oceans not within trench. Formed by forearc extension driven by E-ward subduction rollback. Lithospheric extension in upper plate accommodated by major low-angle normal fault system named 'Banda detachment'. Bathymetry data reveal Banda detachment is exposed underwater over much of 120 km downdip and 450 km lateral extent)

Setiadi, I. & A.R. Riyanda (2016)- Delineasi cekungan sedimen dan interpretasi geologi bawah permukaan cekungan Tanimbar berdasarkan analisis data gayaberat. J. Geologi Sumberdaya Mineral 17, 3, p. 153-169.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/14)
('Delineation of sedimentary basin and subsurface geological interpretation of the Tanimbar basin based on analysis of gravity data'. Gravity survey on and around Yamdena Island suggest six sub-basins. NE-SW trending basement high)

Setyanta, B. (2010)- Medan gaya berat dan model geodinamika di sekitar Kepulauan Kai dan Kepulauan Aru, Maluku. J. Sumber daya Geologi 20, 6, p. 305-316.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/181/177)
('Gravity field and geodynamic models around the Kai and Aru Islands, Moluccas'. Kai- Aru area underlain by continental crust. Kai islands formed by thrusting, Aru islands by rifting)

Taib, M.I.T., M.T. Zen, M. Untung & F. Hehuwat (1997)- Dilema Banda. Proc. 26th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, p. 354-370.
('The Banda dilemma'. Discussion of nature and age of crust below Banda Sea)

VII.2. Lesser Sunda- West Banda Volcanic Arc (Bali-Lombok- Flores- Wetar) (24)

Aswan, Y. Zaim, Y. Rizal, I.N. Sukanta, S.D. Anugrah, A.T. Hascaryo, I. Gunawan, T. Yatimantoro et al. (2017)- Age determination of paleotsunami sediments around Lombok Island, Indonesia and identification of their possible tsunamigenic earthquakes. Earthquake Science 30, 2, p. 107-113.
(online at: https://link.springer.com/content/pdf/10.1007%2Fs11589-017-0179-2.pdf)

(210Pb age dating method of young paleotsunami sediments of W and SW Lombok. Gawah Pudak sediments deposited 37 and 22 years ago (1977 and 1992). Three paleotsunami sediments from Gili Trawangan deposited 149, 117 and 42 years ago. Tied 1857 Bali Sea earthquake, 1897 Flores Sea or Sulu Sea earthquake, 1975 Nusa Tenggara earthquake, 1977 Sumba earthquake and 1992 Flores earthquake)

Halbach, P., L. Sarmili, M. Karg, B. Procejus, B. Melchert, J. Post, E. Rahders & Y. Haryadi (2003)- The break-up of a submarine volcano in the Flores-Wetar Basin (Indonesia); implications for hydrothermal mineral deposition. InterRidge News 12, 1, p. 18-22.
(online at: https://www.interridge.org/files/interridge/IR_news_12a.pdf)
(BANDAMIN I cruise in 2001 examined SE trending submarine ridge in tectonically active Flores-Wetar Basin, extending to Komba (Batu Tara) volcano. Seamount cross-cut by left-lateral NW-SE faults, with intervening z-shaped plain (pull-apart structure). Rock samples K-rich porphyritic volcanics (trachyandesites, trachydacites), locally impregnated with sulphides (epithermal low-sulphidation metal deposits))

Halbach, P., L. Sarmili, B. Procejus, M. Karg, B. Melchert, J. Post et al. (2003)- Tectonics of the ñKomba-ridgeò area in the Flores-Wetar Basin (Indonesia) and associated hydrothermal mineralization of volcanic rocks. Bull. Marine Geol. (MGI, Bandung) 18, 3, p. 1-27.
(In Flores-Wetar basin N of Lomblen NW-SE trending submarine hills extending to Komba Island (Batu Tara). Hills cut by several NW-SE faults. Samples mainly porphyritic K-rich basaltic trachyandesite and trachydacite. With epithermal-type mineralization halo)

Harahap, B.H., H.Z. Abidin, H. Utoyo, D. Djumhana & R. Yuniarni (2015)- Prospect of mineral deposits in the Central Flores Island, Eastern Indonesia. J. Geologi Sumberdaya Mineral 16, 1, p. 1-13.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/46/48)
(Same paper as Harahap et al. 2014, above)

Hoschke, T. (2012)- Geophysics of the Elang Cu-Au porphyry deposit, Indonesia, and comparison with other Cu-Au porphyry systems. In: 22nd ASEG Int. Geophys. Conf. Exhib., Brisbane 2012, p. 1-3. *(Extended Abstract)*
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2012ab178)
(Elang large porphyry Cu-Au deposit ~70 km E of Batu Hijau on SE Sumbawa. Associated with tonalite porphyry intrusions hosted by andesitic volcanics. Elang typical of number of Cu-Au porphyry systems where magnetite associated with mineralisation and produces strong magnetic anomaly)

Hutabarat, J., A.D. Haryanto & L. Sarmili (2006)- Petrografi batuan beku volkanik bawah laut kompleks Gunung Komba, Laut Flores, Indonesia. Bull. Scientific Contr. (UNPAD) 4, 1, p. 62-67.
(online at: http://jurnal.unpad.ac.id/bsc/article/viewFile/8115/3691)
('Petrography of submarine volcanic rocks of the Mount Komba complex, Flores Sea, Indonesia'. Dredge samples from water depths 130-900m of Gunung Komba submarine volcano complex, NE of Flores, composed of andesite-basaltic lava flows. Varying degrees of propylitic or sericitic alteration)

Idrus, A. (2018)- Petrography and mineral chemistry of magmatic and hydrothermal biotite in porphyry copper-gold deposits: a tool for understanding mineralizing fluid compositional changes during alteration processes. Indonesian J. Geoscience 5, 1, p. 47-64.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/402/254)
(On magmatic and hydrothermal biotite in Batu Hijau porphyry copper-gold deposit, Sumbawa)

Idrus, A. (2018)- Halogen chemistry of hydrothermal micas: a possible geochemical tool in vectoring to ore for porphyry copper-gold deposit. J. Geoscience Engineering Environm. Technol. (JGEET) 3, 1, p. 30-38.
(online at: journal.uir.ac.id/index.php/JGEET/article/download/1022/797/)
(On hydrothermal micas in alteration zone of Batu Hijau porphyry copper-gold deposit, Sumbawa)

Liang, Y., X. Sun, W. Zhai, A. Li, Li Xu, Q. Tang & J. Liang (2009)- Geochemistry of ore-forming fluids and genesis of Soripesa Cu-polymetallic deposit in Indonesia. Geology and Exploration 45, 1, p. 41-45.

(Soripesa epithermal hydrothermal Cu-polymetallic deposit on Sumbawa with three types of fluid inclusions)

Maryono, A. (2015)- Overview of the tectonic setting and geology of porphyry copper-gold deposits along the Eastern Sunda magmatic arc, Indonesia. In: World-class ore deposits: discovery to recovery, SEG 2015 Int. Conf., Hobart, p. *(Abstract only)*
(online at: www.segweb.org/SEG/_Events/Conference_Archives/2015/Conference_Proceedings/files/pdf/Oral-Presentations/Abstracts/Maryono.pdf)
(E Sunda arc major porphyry metallogenic belt (Tumpangpitu/ Tujuh Bukit Au-Ag-Cu deposit in E Java, Batu Hijau and Elang on Sumbawa). Porphyry mineralization confined to E segment (E Java to Sumbawa), where Roo Rise subducting beneath island arc. Subeconomic porphyry prospects at Selogiri, Ciemas, Cihurip with low sulfidation epithermal deposits (Pongkor, Cikotok, Cibaliung, Cikondang, Arinem) along W segment of Sunda arc, developed on thick continental crust on S Sundaland margin,d associated with 'normal' Indian oceanic crust subduction. Porphyry deposits typically with large lithocaps (>20 km2), with high sulfidation epithermal gold-silver veins within lithocaps at Elang, Selodong, Brambang and Tumpangpitu)

Maryono, A., R.L. Harrison, D.R. Cooke, I. Rompo & T.G. Hoschke (2018)- Tectonics and geology of porphyry Cu-Au deposits along the eastern Sunda magmatic arc, Indonesia. Economic Geology 113, 1, p. 7-38.
(E Sunda arc hosts three premier porphyry Cu-Au deposits between E Java and Sumbawa: Batu Hijau, Elang, and Tumpangpitu. Built on island-arc crust where Roo Rise is being subducted. Along W segment of arc (W Java), major epithermal deposits associated with poorly endowed porphyry prospects, on thick continental crust of S margin of Sundaland, associated with subduction of thin Indian oceanic crust. Porphyry Cu-Au deposits associated with small, nested, dioritic-tonalitic intrusive complexes, with mineralization during three main events. Large (>20 km2) lithocaps with high-sulfidation epithermal systems. Porphyry deposits formed between 2-2.5 Ma, suggesting important change in metallogeny of arc at this time)

Maryono, A., R. Harrison, I. Rompo, E. Priowasono & M. Norris (2016)- Successful techniques in exploring the lithocap environment of the Sunda magmatic arc, Indonesia. In: Proc. 8th Ann. Conv. Masyarakat Geologi Ekonomi Indonesia (MGEI), Bandung, p. 7-13.
(On exploration techniques of large Cu-Au porphyry deposits under barren or mineralized lithocaps. Five major discoveries in last 15 years in E Java and Sumbawa)

Metrich, N., C.M. Vidal, J.C. Komorowski, I. Pratomo, A. Michel, N. Kartadinata, O. Prambada, H. Rachmat & Surono (2017)- New insights into magma differentiation and storage in Holocene crustal reservoirs of the Lesser Sunda Arc: the Rinjani- Samalas Volcanic Complex (Lombok, Indonesia). J. Petrology 58, 11, p. 2257-2284.
(Mineralogy and chemistry of magmas erupted over last ~12 kyr at Rinjani-Samalas volcanic complex on Lombok. Calc-alkaline series, moderately rich in K2O. Pre-caldera stage bimodality of magmas (basalt-trachydacite); post-caldera magmatism basaltic andesites. Possibly result of mixing between basalt and trachydacite melts. AD 1257 caldera-forming eruption large volume of trachydacitic magma)

Polhaupessy, A.A. (2001)- Vegetation and environment of the Soa Basin, Central Flores. Majalah Geologi Indonesia 16, 3, p. 135-145.

Rachmat, H., M.F. Rosana, A.D. Wirakusumah & G.A. Jabbar (2016)- Petrogenesis of Rinjani post-1257-caldera-forming-eruption lava flows. Indonesian J. Geoscience 3, 2, p. 107-126.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/311/209)
(Catastrophic 1257 caldera-forming eruption of Old Rinjani on Lombok followed by appearance of Rombongan and Barujari Volcanoes within caldera, composed of calc-alkaline and high K calc-alkaline porphyritic basaltic andesite)

Sarmili, L. & J. Hutabarat (2014)- Indication of hydrothermal alteration activities based on petrography of volcanic rocks in Abang Komba submarine volcano, East Flores Sea. Bull. Marine Geol. (MGI, Bandung) 29, 2, p. 91-100.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/download/69/70)

(Mineral alteration on Abang Komba submarine volcano, Flores Basin, caused by hydrothermal solutions)

Sarmili, L. & M.A. Suryoko (2012)- The formation of submarine Baruna Komba Ridge on Northeast Flores waters in relation to low anomaly of marine magnetism. Bull. Marine Geol. (MGI, Bandung) 27, 2, p. 67-75.
(online at: ejournal.mgi.esdm.go.id/index.php/bomg/article/download/46/47)
(Three submarine ridges off NE Flores waters: Baruna Komba (S of Komba/Batutara active volcano), Abang and Ibu. Magnetic data suggest Baruna Komba Ridge not volcanic, but possibly volcanic detritus. Abang and Ibu Komba ridges related to submarine magmatism)

Subarsyah, D. Kusnida & L. Arifin (2014)- Interpretasi struktur bawah permukaan berdasarkan atribut anomali magnetik perairan Wetar, NTT. J. Geologi Kelautan 12, 1, p. 5-23.
(online at: ejournal.mgi.esdm.go.id/index.php/jgk/article/download/242/232)
('Subsurface structure interpretation based on magnetic anomaly attributes of Wetar waters, East Nusa Tenggara'. Identification of back-arc frontal thrust and submarine volcano edifices from magnetic and shallow seismic data in E Flores Sea/ S Banda Sea, N of Banda Arc islands Alor- Wetar)

Subarsyah & R. Rahardiawan (2016)- Geological structures appearances and its relation to mechanism of arc-continent collision, northern Alor-Wetar Islands. Bull. Marine Geol. 31, 2, p. 55-66.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/326/274)
(Shallow seismic lines in S Banda Sea, N of Alor- Wetar, in zone of back-arc thrusting. Delineation of Alor Thrust and Wetar Thrust, offset by N-S left-lateral strike-slip fault. Also possible submarine volcano structures)

Sulaeman, C., S. Hidayati, A. Omang & I.C. Priambodo (2018)- Tectonic model of Bali Island inferred from GPS Data. Indonesian J. Geoscience 5, 1, p. 81-91.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/389/257)
(GPS campaign shows horizontal displacements between 1.9 and 22.5 mm/yr, dominantly to NE. Deformation in Bali mostly controlled by subduction in S and East Flores back-arc thrust in N)

Van der Werff, W., H. Prasetyo & T.C.E. van Weering (1991)- The Bali-Lombok forearc region: trapped forearc basin of rifted continental origin ? Proc. Int. Seminar Geodynamics, Indon. Assoc. Geophys. (HAGI), p. 14-22.
(Geologic development of Sumba analogous to Doang borderland at leading edge of Sunda shield margin?)

Wawryk, C.M. & J.D. Foden (2017)- Iron-isotope systematics from the Batu Hijau Cu-Au deposit, Sumbawa, Indonesia. Chemical Geology 466, p. 159-172.
(Iron isotope values of andesite and quartz diorite and coeval hypogene ore minerals from Batu Hijau porphyry copper-gold deposit in Sumbawa)

Yeh, H., F. Imamura, C. Synolakis, Y.Tsuji, P. Liu & S. Shi (1993)- The Flores Island tsunamis. EOS Transactions American Geophys. Union (AGU) 74, 33, p. 369, 371-373.
(December 12, 1992 Ms 7.5 earthquake and tsunami off N Flores with epicenter 50km NW of Maumere, hypocenter depth 15km. Considered to reflect activity in N Flores backarc thrust zone. Tsunami runup height up to 26m, inundation distance ~600m)

Zardi D, A., T. Sihombing, A. Purba & N.I. Basuki (2012)- Resource of Pangulir lode deposit, Sumbawa, Indonesia. Proc. Banda and Eastern Arcs, MGEI Annual Convention 2012, Malang, p. 159-179.
(Pangulir newly discovered Au-Ag-Cu epithermal quartz-sulfide vein breccia lode in S Sumbawa Island. Hosted in Tertiary arc volcanics)

VII.3. Sumba, Savu, Savu Sea (2)

Nexer, M. (2015)- Etude conjointe des reseaux de drainage et des paleocotes plio-quaternaires soulevees: exemples de lôIndonesie et du golfe Normand Breton. Doct. Thesis Universite de Caen Normandie, p. 1-365.
(online at: https://tel.archives-ouvertes.fr/tel-01258570/document)
('Joint study of the drainage systems and uplifted Pliocene-Quaternary paleocoasts: examples from Indonesia and the Gulf of Normandy-Brittany'. In French. With chapters on raised coral reef terraces of Sumba (E Indonesia) and Huon Peninsula (PNG))

Van der Werff, W., H. Prasetyo & T.C.E. van Weering (1991)- The accretionary wedge South of Sumba Timor: an accreted terrane in the process of slivering? Proc. Int. Seminar on Geodynamics of fore-arc sliver plate, Indon. Assoc. Geophys. (HAGI), p. 55-60.

VII.4. Timor, Roti, Leti, Kisar *(incl. Timor Leste)* ***(34)***

Berry, R., J. Thompson, S. Meffre & K. Goemann (2016)- U-Th-Pb monazite dating and the timing of arcï continent collision in East Timor. Australian J. Earth Sci. 63, 4, p. 367-377.
(Metamorphic age of highest-grade rocks formed in Timor arc-collision collision remains controversial. U-Th-Pb dating of monazite from Aileu Fm amphibolite-grade schists suggests peak metamorphism at 5.5-4.7 Ma)

Boger, S.D., L.G. Spelbrink, R.I. Lee, M. Sandiford, R. Maas & J.D. Woodhead (2017)- Isotopic (U-Pb, Nd) and geochemical constraints on the origins of the Aileu and Gondwana sequences of Timor. J. Asian Earth Sci. 134, p. 330-351.
(Detrital zircon U-Pb age data from Aileu Complex and 'Gondwana Sequence' of Timor, indicate both derived from common source with 200-600 Ma, 900-1250 Ma and 1450-1900 Ma zircons. Most significant age population ~260 Ma. Similar spectrum of ages along E active margin of Pangea, today best exposed along NE coast of Australia. Mudstones of Aileu Complex more siliceous and other chemical differences from 'Gondwana Sequence', so possibly eroded from different sections of margin and deposited in separate basins. Present proximity result of Pliocene- Recent collision between N Australia plate and Banda Arc)

Brouwer, H.A. (1914)- Neue Funde von Gesteinen der Alkalireihe auf Timor (Zweite Mitteilung). Centralblatt Mineral. Geol. Palaont. 1914, p. 741-745.
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.b4291847;view=1up;seq=767)
('New finds of rocks of the alkali series on Timor'- Part 2. Brief note on reddish alkalirhyolites SW of Sufa collected during Molengraaff West Timor Expedition. (No figures or details on geologic setting))

Charlton, T.R., D. Gandara & N. da Costa Noronha (2017)- TIMOR GAPôs onshore Block: a preliminary assessment of prospectivity in onshore Timor-Leste. In: SEAPEX Exploration Conference 2017, Singapore, Session 4, 30p. *(Abstract + Presentation)*
(Onshore block in SW part of Timor Leste now held by national oil company Timor Gap EP. 18 exploration wells drilled between 1960-1973: ten with hydrocarbons, two (Matai-1/-1A and Cota Taci-1) tested oil in subcommercial quantities. At least 37 surface hydrocarbon seeps (14 oil, 23 gas) across block. Gas from seeps both high-mature thermogenic (from Permian?) and biogenic. Triassic calcareous restricted marine shale likely source for all Timor oils. Likely subthrust inversion anticlines of Permo-Triassic rifts)

Chiang, H.W., R.A. Harris, C. Prasetyadi, C.C. Shen, T.C. Chiu, N.L. Cox & Y.G. Chen (2010)-Th-230 dates of MIS 5e coral terraces in Kisar Island, Eastern Indonesia. EGU General Assembly, Vienna, Conf. Abstracts 12, p. 13467.
(online at: http://adsabs.harvard.edu/abs/2010EGUGA..1213467C)

(New 230Th dates raised Quaternary coral terraces at Kisar suggest ages of ~122 ka and minimum uplift rate of 0.1 m/kyr On N coast of Timor-Leste MIS 5e terraces reach 55m high, with uplift rate of ~0.4 m/kyr. No remnant Holocene fringe reefs around Kisar Island, also suggesting rel. low activity tectonics at Kisar)

Cockcroft, P., C. Kenyon & W.Spencer (2005)- A journey into East Timorŝs exploration history. Proc. 2005 SE Asia Petroleum Expl. Soc. (SEAPEX) Conf., Singapore, 64p. *(Abstract + Presentation)*
(Five phases of oil-gas exploration in Timor Leste since 1893)

Davydov, V.I., D.W. Haig & E. McCartain (2014)- Latest Carboniferous (late Gzhelian) fusulinids from Timor Leste and their paleobiogeographic affinities. J. Paleontology 88, 3, p. 588-605.
(Uppermost Gzhelian (possibly lowermost Asselian) 9-24m thick bioherm on basalt near Kalau, 6 km WNW of Maubisse, in highlands of Timor Leste. With abundant foraminifera belonging to 17 genera (incl. fusulinids Ozawainellidae, Schubertellidae, Schwagerinidae, etc. Two new Schwagerina species: S. timorensis and S. maubissensis in oldest carbonate unit recorded frome Maubisse Fm. Also Eostaffella spp., Schellwienia spp. Timor was in N part of N-S East Gondwana rift system along which W margin of Australia later developed. Timor fauna most closely related to faunas from S China and Changning-Menlian region of Yunnan)

Donovan, S.K. & G.D. Webster (2013)- Platyceratid gastropod infestations of *Neoplatycrinus* Wanner (Crinoidea) from the Permian of West Timor: speculations on thecal modifications. Proc. Geologists Assoc. 124, 6, p. 988-993.

Donovan, S.K. & G.D. Webster (2016)- A Permian *Barycrinus*? Wachsmuth (Crinoidea, Cladida) from Timor. Alcheringa 40, p. 216-218.
(A crinoid pluricolumnal from Noil Simaam, Timor, identified as Barycrinus? sp., youngest member of this otherwise E Carboniferous genus)

Duffy, B., J. Kalansky, K. Bassett, R. Harris, M. Quigley, D.J.J. van Hinsbergen, L.J. Strachan & Y. Rosenthal (2017)- Melange versus forearc contributions to sedimentation and uplift, during rapid denudation of a young Banda forearc-continent collisional belt. J. Asian Earth Sci. 138, p. 186-210.
(Along Timor sector of Banda Arc synorogenic piggy-back basins formed above melange unit, exhumed to sea floor in latest Messinian. Following deep marine marl sedimentation, increasingly muddy sediment flux indicates emergence of Timor 4.5 Ma. Sediment source probably 50-60 km to N. Sedimentation between 4.5-3.2 Ma probably derived from mudstone-dominated landscape with geochemical affinities to the Triassic-mudstone-rich synorogenic melange, which overlies and surrounds Banda Terrane. After 3.2 Ma, sedimentation dominated by hard rock lithologies of Banda Terrane, and accompanied by rapid uplift)

Erdi, A., B. Sapiie, N.M. Kusuma, A. Rudyawan & I. Gunawan (2018)- New perspective of Mesozoic hydrocarbon prospectivity within West Timor. Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts, 1, p. 1-7. *(Extended Abstract)*
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2018abP031)
(Review of Mesozoic of W Timor and comparisons to Australian NW Shelf, suggesting similar hydrocarbon plays)

Gerth, H. (1936)- The occurrence of isolated calicular plates of *Dinocrinus* in the Permo-Carboniferous of Australia and India and its stratigraphical significance. Proc. Kon. Akademie Wetenschappen, Amsterdam, 39, 7, p. 865-870.
(online at: http://www.dwc.knaw.nl/DL/publications/PU00016941.pdf)
(Crinoid Dinocrinus cornutu, described from E Permian of Timor by Wanner, probably junior synonym of Calceolispongia hindei Etheridge known from W Australia (not from India, but Netherlands Indies; JTvG))

Hadimuljono, J.S., D. Yensusminar, A.B. Wicaksono & S. Suliantara (2016)- Rembesan migas di daerah Timor Barat. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 50, 3, p.
(online at: www.journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/428)

('The oil and gas seepages in West Timor'. Many oil and gas seeps in W Timor, generally associated with mud volcanoes. Gas seeps in all mud volcanoes in W Timor; oil seeps only at mud volcanoes in S part of W Timor. Gas mainly methane (CH4) and minor ethane (C2H6) with high N2 content. Gas Chromatography of oil seeps suggest oil probably originated from lacustrine or marine-transition environments)

Haig, D.W., A.J. Mory, E. McCartain, J. Backhouse, E. Hakansson, A. Ernst, R.S. Nicoll, G.R. Shi, J.C. Bevan, V.I. Davydov, A.W. Hunter, M. Keep et al. (2017)- Late Artinskian- Early Kungurian (Early Permian) warming and maximum marine flooding in the East Gondwana interior rift, Timor and Western Australia, and comparisons across East Gondwana. Palaeogeogr. Palaeoclim. Palaeoecology 468, p. 88-121.
(U Artinskian- Kungurian deposits in Timor-Leste and Canning, S Carnarvon and N Perth basins of W Australia formed between 35- 55°S paleolatitude in East Gondwana interior rift, a precursor to rift that 100 My later formed Indian Ocean in region. Timor lay near main axis of E Gondwana rift. Main depocentres developed by faulting initiated in latest Carboniferous. Cool conditions in early Late Artinskian (water T 0-4 °C), followed by rapid warming in late Artinskian and maximum marine flooding near Artinskian-Kungurian boundary. Carbonate mounds,with larger fusulines and algae developed in N part of rift; Tubiphytes, conodonts, and brachiopods with Tethyan affinities to migrate into marginal-rift basins. Bua-bai Lst (= 'upper Maubisse Gp) locally rich in Late Artinskian? fusulinid Praeskinnerella. Similar pattern of climate change in Carboniferous- E Permian between E Gondwana rift and Lhasa and Sibumasu terranes)

Lay, A., I. Graham, D. Cohen, J.M. Gonzalez-Jimenez, K. Privat, E. Belousova & S.J. Barnes, (2014)- Platinum Group Minerals in ophiolitic chromitites of Timor Leste. In: E.V. Anikina et al. (eds.) 12th Int. Platinum Symposium, Inst. Geology and Geochemistry UB RAS, Yekaterinburg, p. 179-180. *(Abstract)*
(online at: http://conf.uran.ru/12IPS/12%20IPS%20ABSTRACTS.pdf)
(Hili Manu peridotites in Manatuto District on N coast of Timor Leste, ~50km E of Dili with ultramafic rocks(serpentinised dunites, harzburgites and lherzolites associated with rare rodingites and gabbros) in two massifs, separated by amphibolite block. With chromitite bodies and Platinum-Group Mineralisation. Preliminary PGM Re-Os ages from 0.05 Ga (Subao Highway) to 0.21 Ga (Kerogeol Hill))

Lay, A., I. Graham, D. Cohen, K. Privat, J.M. Gonzalez-Jimenez, E. Belousova & S.J. Barnes (2017)- Ophiolitic chromitites of Timor Leste: their composition, platinum group element geochemistry, mineralogy, and evolution. Canadian Mineralogist 55, 5, p. 875-908.
(Ultramafic rocks at Hili Manu, ~50 km E of Dili , two ultramafic massifs separated by amphibolite. Chromitite bodies at Hili Manu small lenses few m in size. Chromites both high-Cr and high-Al types. Platinum-group minerals (laurite, etc.) as inclusions and in fractures in chromite or serpentinite matrix. Peridotite geochemistry and chemistry of chrome-spinels suggest formation of Hili Manu peridotite in upper mantle in supra-subduction zone setting, part of young oceanic lithosphere from Banda Arc)

Lelono, E.B. (2016)- Palynology of the Permian freshwater deposit in West Timor. J. Geologi Sumberdaya Mineral 17, 4, p. 231-239.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/18/16)
(Permian Bisane Fm of W Timor dominated by calcareous sandstone with abundant marine crinoid fossils. Intercalation of non-calcareous dark shale-siltstone with papery structure, 5m thick, with Permian striate-bisaccate pollen, incl. Protohaploxypinus samoilovichii and other species (associated with Glossopteris flora), Striatopodocarpidites phaleratus, Pinuspollenites globosaccus, Lunatisporites pellucidus, etc. and lack marine dinoflagellate. Possibly syn-rift lacustrine deposit)

Lelono, E.B., D. Kurniadi, K.D. Anggritya & Saidah (2017)- Palynological review of the Permian lacustrine sediment in the West Timor. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 6p.
(Palynology of new locality of 4m thick non-calcareous black 'paper shale' in central W Timor interpreted as Late Permian lacustrine deposit. High abundance but low diversity of palynomorphs. Tasmanites-green algae >80% of pollen assemblage; rest assemblage striate and non-striate bisaccate and trilete spore, characterising Permian age. Tasmanites blooms interpreted as lake supplied with meltwater from surrounding glaciers. Tasmanites algae potential hydrocarbon source (NB: Tasmanites commonly viewed as pelagic marine algae,

common in higher latitudes? (e.g. Barentsz Sea M Triassic marine oil shales with Tasmanites blooms and common Daonella bivalves; Vigran et al. 2008; JTvG). No details on locality)

Lelono, E.B., L. Nugrahaningsih & D. Kurniadi (2016)- Permo-Triassic palynology of the West Timor. Scientific Contr. Oil and Gas, Lemigas, Jakarta, 39, 1, p. 1-13.
(online at: www.lemigas.esdm.go.id/public/publikasi/scientific/14778917121993082162.pdf)
(Bisane Fm sandstones-shales in W Timor outcrops with mica and abundant crinoids and up to 5m thick non-calcareous dark shale-siltstone with papery structure and rich in sulfur. Permo-Triassic ages indicated by striate-bisaccate pollen, incl. Protohaploxypinus samoilovichii, P. fuscus, P. goraiensis (= from Glossopteris plants), Striatopodocarpidites phaleratus, Pinuspollenites globosaccus, Lunatisporites pellucidus, also non-striate Falcisporites australis, Samaropollenites speciosus, etc. Trilete-monosaccate spores of Plicatipollenites malabarensis and Cannanoropollis janakii in non-calcareous shale samples Permian or older age. Marine dinoflagellates in calcareous samples (incl. Dapsilidinium langii, Dingodinium jurassicum) suggest marine influence, and not present in non-calcareous samples. Possibly new petroleum system in Paleozoic of W Timor? (NB: dinoflagellates are latest Triassic-Jurassic species?; JTvG))

Lelono, E.B., L. Nugrahaningsih, D. Kurniadi, P.A. Suandhi & B.H. Utomo (2016)- Palynological investigation of the Permian sediment in the on-shore West Timor. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 401-404.
(Abbreviated version of Lelono et al. 2016, above, on freshwater synrift facies in Permian Bisane Fm with 44 palynomorph species of Falcisporites superzone)

Lelono, E.B., D. Sunarjanto & A. Kholiq (2016)- Potensi hidrokarbon sedimen Pra-Tersier daerah Atambua, Timor Barat. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 50, 2, p.
(online at: www.journal.lemigas.esdm.go.id/index.php/LPMGB/article/view/455)
('Hydrocarbon potential of Pre-Tertiary sediments of the Atambua area, West Timor'. Atambua area with many hydrocarbon seeps. Permian shale of Bisane Fm and Triassic clay of Aitutu Fm are considered to be source rocks, Permian and Jurassic sandstone potential reservoirs, Jurassic of Wailuli Fm clay potential seal)

Martini, R.L., M. Zaninetti, J. Villeneuve, J.J. Cornee, L. Krystin, S. Cirilli, P. De Wever, P. Dumitrica & A. Harsolumakso (1999)- New sedimentological and biostratigraphic data on the Triassic of West Timor (Indonesia). 7th Congr. Francais sedimentlogie, Nancy, 2p. *(Abstract)*
(U Triassic Carnian- U Carnian/Rhaetian basinal carbonate series with radiolaria, ammonites and conodonts. 6 lithostratigraphic units: A-B Carnian; C Norian with Gliscopollis meyeriana and Granulatoperculatipollis rudis; E with U Norian Monotis salinaria, etc. Adherance of Allochthonous of Timor to Australian margin highly questionable)

Maryanto, S., A.K. Permana & J. Wahyudiono (2018)- Aspek petrografi batugamping di daerah Timor Tengah Selatan. J. Geologi Sumberdaya Mineral 19, 2, p. 83-97.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/396/340)
('Aspects of the petrography of limestones in the South Central Timor Area'. Petrography of limestones from N and E of Soe: Triassic Aitutu Fm (rich in phylloid algae (= Halobia-type bivalves?; HvG)), E Cretaceous Nakfunu Fm (rich in radiolaria), Late Cretaceous Menu Fm (with planktonic foraminifera) and Paleogene Ofu Fm (with benthic foraminifera and terrigenous material))

Morgan, R.F. (2015)- Three new species of *Deltoblastus* Fay from the Permian of Timor. PLoS One 10, 6, e0127727, p. 1-9.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4465186/)
(Review of15 species of blastoid genus Deltoblastus, with introduction of 3 new species, based on material from Basleo, etc. (now in Waco and London museum collections))

Muhammad, F., I G.B.E. Sucipta & M.G Sagara (2017)- Origin and tectonic emplacement of mylonitized peridotite in Hili Manu Area, Timor Leste. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 6p.

(Hili Manu peridotite body in Timor Leste is spinel lherzolite peridotite with mylonitic structures. Geothermobarometry from exsolution lamellae of pyroxenes indicate peridotite formed at 1190°C and 8.5 kb (850 MPa). Rocks mylonitized at 964- 1092°C and 4.9-5.7 kb (490-570 MPa). Metamorphism of underlying Permian Aileu Fm increases toward base of peridotite; sole metamorphism during peridotite emplacement)

Munasri & K. Sashida (2018)- Tethyan and non-Tethyan Early Cretaceous radiolarian faunas from West Timor, Indonesia: paleogeographic and tectonic significance. Earth Evolution Sciences (University of Tsukuba) 12, p. 3-12.
(Abundant and well-preserved E Cretaceous radiolaria in calcilutites and shales of Nakfunu Fm, Kolbano area, southern W Timor, in part of accretionary complex. Radiolarian faunas similar to ODP Leg 123- Site 785 from Argo Abyssal Plain. Four assemblages of Berriasian- E Aptian age, with trend from non-Tethyan to Tethyan affinities in progressively younger strata. Frequent and random repetition of radiolarian assemblages reflect imbrication of beds. Faunas derived from S paleolatitude origin, influenced by Circum-Antarctic current)

Park, S.I., H.J. Koh, S.W.Kim, Y.H. Kihm (2014)- The occurrence and origin of a syn-collisional melange in Timor. Economic Environmental Geol. 47, 1, p. 1-15.
(online at: http://ocean.kisti.re.kr/downfile/volume/kseeg/JOHGB2/2014/v47n1/JOHGB2_2014_v47n1_1.pdf)
(In Korean, with English abstract. Bobonaro melange syn-collisional melanges formed during collision between Australian continental margin and Banda arc. In Suai area melange matrix of unmetamorphosed red-green clay with scaly texture, with allochthonous blocks. Melange classified into 1) diapiric; 2) tectonic; and 3) broken formation. Melange intruded all pre-collisional units including lower Australian margin unit (Gondwana megasequence) and Banda arc unit. Interpreted to be mainly formed as diapiric melange originated from Gondwana megasequence)

Santy, L.D. & A.J. Widiatama (2017)- Perbandingan provenance Formasi Babulu dan Formasi Oebaat Pulau Sabu, NTT. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
('Comparison of provenance of the Babulu and Oebaat Formations of Savu Island, NTT'. Sandstone petrography of (1) Late Triassic Babulu Fm (quartz 21-54%, feldspar 3-18%, and mainly metamorphic rock fragments 1-28%; recycled orogen) and earliest Cretaceous Oe Baat Fm (quartz 72-99%, feldspar 1-4%, rock fragments 0-5%; craton interior))

Tate, G.W., N. McQuarrie, H. Tiranda, D.J.J. Hinsbergen, R. Harris, W.J. Zachariasse, M.G. Fellin, P.W. Reiners & S.D. Willet (2017)- Reconciling regional continuity with local variability in structure, uplift and exhumation of the Timor orogen. Gondwana Research 49, p. 364-386.
(New constraints on history of uplift, exhumation and shortening of W Timor. Foreland thrust stack of Jurassic-Miocene Australian margin strata and hinterland antiformal stack of Permo-Triassic Australian continental units duplexed below Banda Arc lithosphere. Piggyback Central Basin with deepwater synorogenic deposition from 5.57-5.53 Ma, uplift from lower-m bathyal depths at 3.35-2.58 Ma, and uplift from m-u bathyal at 2.58-1.30 Ma. Hinterland Permo-Triassic with apatite (U-Th)/He ages of 0.33-2.76 Ma, apatite FT ages of 2.19-3.53 Ma. Youngest or most reset in center of antiformal stack. Minimum of 300km of shortening including 210km of Australian continental subduction below Banda forearc. Timor-Leste similar timing of collision, etc.)

Tjokrosapoetro, S. & H.D. Tjia (1978)- Gejala-gejala tektonik Kwarter di Timor. Geologi Indonesia 5, 1, p. 11-26.
('Quaternary tectonic activity on Timor')

Wahyudiono, J., I. Safri, A. Sudradjat & H. Panggabean (2016)- Geokimi batuan gunungapi di Pulau Timor bagian Barat dan implikasi tektonikya. J. Geologi Sumberdaya Mineral 17, 4, p. 241-252.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/24/21)
('Geochemistry of the volcanic rocks of West Timor and its tectonic implications'. Geochemistry of basaltic rocks from Fatu River (interfinger with Permian Maubisse Fm limestone) suggests Oceanic Island Basalt. Oligo-Miocene metabasalt from Mutis Complex calk-alkaline, island arc volcanics. Metan River and Atauro Island (Banda Arc) subalkaline/ tholeitic volcanics)

Webster, G.D. & S.K. Donovan (2012)- Before the extinction- Permian platyceratid gastropods attached to platycrinitid crinoids and an abnormal four-rayed *Platycrinites* s.s. *wachsmuthi* (Wanner) from West Timor. Palaeoworld 21, 3-4, p. 153-159.
(Examples of gastropods attached to Permian platycrinitid camerate crinoids from W Timor)

Webster, G.D. & S.K. Donovan (2015)- Review and revision of the West Timor Permian *Graphiocrinus* species of Johannes Wanner. Palaeoworld 24, p. 497-522.
(26 species of crinoid Graphiocrinus described from Permian of Timor by Wanner (1916-1949), but 12 belong to other genera, many others considered indeterminate members of several families. New taxa introduced)

Yensusnimar, D., J. Setyoko & L. Ginting (2017)- Biomarker characterization of mud volcano seepage (oil seep) and sediment samples from Atambua Field. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 2p. *(Extended Abstract)*
(Biomarker compositions of oils from Masin Lulik mud volcano seep and surface sediments from the Atambua area, onshore Timor, show signatures of marine source facies (Pr/Ph 1.30- 1.83, absence of land plant biomarker signatures such as bicadinanes and oleananes). Low thermal maturity of oils (early mature) and surface sediments (immature). No information on sample locations or ages of rocks)

VII.5. Timor Sea, Indonesian Sahul Platform (11)

Castillo, D.A., R.R. Hillis, K. Asquith, M. Fischer (1998)- State of stress in the Timor Sea area, based on deep wellbore observations and frictional failure criteria: application to fault-trap integrity. In: Proc. The sedimentary basins of Western Australia II, Petroleum Expl. Soc. Australia (PESA), p. 325- 340.
(SHmax stress direction NE-SW to N-S, subparallels convergence direction between Australia and Indonesia)

Cunneen, J.P. (2005)- Cenozoic tectonics of the Timor Sea, northwest Australia. Ph.D. Thesis University of Western Australia, Perth, p. 1- 249. *(Unpublished)*

Gartrell, A.P. & M. Lisk (2002)- Stress history analysis from 3d restoration of faults: initial results and implications for fault reactivation and hydrocarbon leakage in the Timor sea region, Australia. AAPG Hedberg Research Conference, S Australia 2002, AAPG Search and Discovery Art. 90009, p. 97-99.
(online at: www.searchanddiscovery.com/abstracts/pdf/2002/hedberg_australia/images/ndx_gartrell.pdf)
(Fault reactivation related to late Tertiary collision of Australian continent with Banda Arc responsible for common occurrence of breached hydrocarbon traps in Timor Sea. Two stages of collision at Timor: (1) Late Miocene (8 Ma) when transitional Australian continental crust reached subduction system; (2) true continental crust entered subduction system in M Pliocene, and Timor Trough evolved as foredeep basin in response to imbricate thrust loading on Australian margin)

Montecchi, P.A. (1976)- Some shallow tectonic consequences of subduction and their meaning to the hydrocarbon explorationist. In: M.T. Halbouty et al. (eds.) Proc. Circum-Pacific energy and mineral resources Conf., Honolulu 1974, Amer. Assoc. Petrol. Geol. (AAPG) Mem., p. 189-202.
(Includes early Gulf Oil seismic profiles across Timor Sea showing frontal thrusting/ scraping off of sediment cover and piled on smaller surface to form S Timor- Tanimbar accretionary prism. Etc.)

Perdana, L.A. & M. Ohara (2017)- Oligo-Miocene carbonate depositional model in the offshore Tanimbar region as a key to unlock Oligo-Miocene paleogeography map in the Eastern Indonesia. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 7p.
(Probable Miocene carbonate pinnacle reef on 3D seismic of Babar Selaru Block, Timor Sea off SW Tanimbar)

Robinson, P. (2012)- Exploration opportunities in the Timor Sea region. Petroleum Expl. Soc. Australia (PESA) News 116, p. 67-72.

(Review of N Bonaparte Basin, Australian Timor Sea, hydrocarbon province. Large gas-condensate fields at Bayu-Undan and Sunrise-Sunset-Loxton Shoals-Troubadour complex; oil pools at Laminaria, Corallina, Elang-Kakatua- Kakatua North, Buffalo and Kitan fields. Three petroleum systems: Carboniferous, Permian and Mesozoic)

Saqab, M.M. & J. Bourget (2016)- Seismic geomorphology and evolution of early-mid Miocene isolated carbonate build-ups in the Timor Sea, North West Shelf of Australia. Marine Geology 379, p. 224-245.
(Seismic data show ~60 isolated carbonate build-ups of E-M Miocene age over wide area of NE Bonaparte Basin. Individual build-ups ~100m thick with average diameter of 3 km. Typical stratigraphic architecture: (1) M Burdigalian initiation (Tf1/CN2), (2) late Burdigalian lateral expansion (CN3), and (3) Langhian (Tf2/CN4) backstepping and drowning. Followed by (3) sub-aerial exposure during major Serravallian sea-level fall. Only small patch reefs developed afterwards during Late Miocene. Observed growth phases correlate with global sea-level fluctuations and major changes in global climate/ oceanography; role of local tectonics minimal)

Saqab, M.M., J. Bourget, J. Trotter & M. Keep (2017)- New constraints on the timing of flexural deformation along the northern Australian margin: implications for arc-continent collision and the development of the Timor Trough. Tectonophysics 696-697, p. 14-36.
(Numerous extensional faults in passive margin strata of N Bonaparte Basin, related to lithospheric flexure of descending Australian Plate in convergent setting, coincident with creation of Timor Trough as foreland basin and Cartier Trough. Onset of extensional deformation in latest Miocene (~6 Ma), coincident with onset of arc-continent collision in Timor Sea and development of Timor Trough. Second episode of increased tectonic activity around Pliocene- Quaternary boundary (~3 Ma), continuing intermittently to today)

Surjono, S.S. & I. Arifianto (2016)- Petrophysics analysis for reservoir characterization of Upper Plover Formation in the Field ñAò, Bonaparte Basin, offshore Timor, Maluku, Indonesia. J. Applied Geol. (UGM) 1, 1, p. 43-52.
(online at: https://journal.ugm.ac.id/jag/article/view/26959/16601)
(Upper Plover Fm in Abadi Field not produced due to reservoir issues. Seven parasequences, in transgressive systems in coastal environments with coarsening upward patterns during M-L Jurassic. Porosity 1-19%, permeability 0.01- 1300 mD)

Surjono, S.S., R. Hidayat & N. Wagimin (2017)- Triassic petroleum system as an alternative exploration concept in offshore western Timor Indonesia. J. Petroleum Expl. Production Technology, S13202, p 1-9. *(in press?)*
(online at: https://link.springer.com/content/pdf/10.1007%2Fs13202-017-0421-4.pdf)
(In NW Bonaparte Basin, off W Timor discovery of Abadi gas feld, but classic Jurassic petroleum play did not develop due to severe erosion during Valanginian event. Likely Triassic petroleum system in area, with Scythian Mt Goodwin shales as gas-prone source rock and potential reservoir rocks in Anisian Pollard and Ladinian-Carnian Challis sandstones)

Yokoyama, Y., A. Purcell, K. Lambeck & P. Johnston (2001)- Shore-line reconstruction around Australia during the Last Glacial Maximum and Late Glacial Stage. Quaternary Int. 83-85, p. 9-18.
(Australian continental shelf largely exposed during Last Glacial Maximum)

VIII. WEST PAPUA (WEST NEW GUINEA) (74)

VIII.1. New Guinea General and West Papua (67)

Adhitama, R., R. Hall & L. White (2016)- Structural styles of Adi Basin and the implications of Tarera- Aiduna Fault. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 383-392.
(Adi Basin narrow, deep water (1-3.5km) offshore basin E of Seram accretionary complex, N of Kai Island and Aru basin and SW of Lengguru foldbelt. Basin formation started in Late Miocene (after deposion of New Guinea Limestone; no wells?) and still active today. Adi-Aru Basin structures dominated by normal faults with NNE-SSW strike direction. Multiple episodes of subsidence, marked by unconformities in syn-extension units. Basin development influenced by sinistral movement of Tarera-Aiduna Fault, visible at N side of basin showing normal fault offset. Subsidence driven by slab pull of Australian subducting plate)

Adhitama, R., R. Hall & L.T. White (2017)- Extension in the Kumawa block, West Papua, Indonesia. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-125-G, 16p.
(Kumawa and Aru basins part of narrow N-S trending extensional system in Aru Trough, E of Kai Besar island-Kai Arch and E of Seram accretionary prism. Basin formation started in Late Miocene, with several periods of subsidence, marked by unconformities within syn-extension units. Tarera-Aiduna fault zone dies out to W, S of Lengguru fold belt)

Allison, I. & J.A. Peterson (1976)- Ice areas on Mt. Jaya: their extent and recent history. In: G.S. Hope et al. (eds.) The Equatorial glaciers of New Guinea. Results of the 1971-1973 Australian Universities Expedition to Irian Jaya: survey, glaciology, meteorology biology and paleoenvironments, Balkema, Rotterdam, p. 27-38.
(online at: http://papuaweb.org/dlib/bk/hope1976/03.pdf)
(Area covered by perennial ice and snow in Carstenz (Puncak Jaya) area 6.9 km2 at end 1972)

Anshori, R. (2018)- Chemostratigraphy of the Permian sediments in Bintuni area, Papua Barat Province. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-77-G, 17p.
(Permian sediments penetrated by several wells in Bintuni area mainly non-marine and deltaic facies, with gas in Vorwata-1 and Mogoi Deep-1 wells. Chemo-stratigraphy aids in stratigraphic correlation. Sediments likely sourced from acid-intermediate provenance)

Argakoesoemah, R.M.I. (2017)- Foldbelt exploration play in East Papua, Indonesia. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 6p.
(Brief review of under-explored fold-thrust belt of West Papua. Not much new. Proven hydrocarbon system, but, unlike in adjacent Papua New Guinea, no commercial discoveries)

Argakoesoemah, R.M.I. (2018)- Paleogeography of Early Cretaceous Woniwogi and Toro sandstones, and Late Jurassic Kopai sandstone in Papua region (Indonesia) and Papua New Guinea. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-257-G, 23p.
(Review of E Cretaceous Woniwogi and Toro Sst and Late Jurassic Kopai Sst as crucial hydrocarbon reservoir targets. All are products of regression pulses during E Triassic- Late Cretaceous overall transgression. Valanginian Woniwogi (Alene) Sst well-developed in Birds Body and extends E into PNG. Berriasian Toro Sst only present in Digul region and PNG. Sediment provenance from Kemum and Arafura landmasses)

Argakoesoemah, R.M.I. & J.D.E. Hughes (2017)- A review of Mesozoic exploration plays in the southern part of onshore East Papua. In: Petroleum systems of the Eastern Indonesia region- Guidance for hydrocarbon exploration in Eastern Indonesia, SKK Migas Memoir 1, Jakarta, p. 427-474.
(Review of Mesozoic hydrocarbon plays in Central Range foldbelt and foreland of eastern West Papua and Papua New Guinea. No commercial oil in Indonesian part of main New Guinea island, but oil shows in Cross Catalina 1 and oil and gas in Kau 2 foreland basin well prove working Mesozoic petroleum system)

Arifin, A.S., A. Fakhri, R.P. Putra, Soffan M.H. & N. Hayati (2017)- The important of new petroleum system developing in mature basin : a preliminary study of Pre Tertiary petroleum system in Salawati Basin. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 4p.
(Kawista 1 well (2013) in W Salawati basin tested oil in Eocene Faumai Lst different from oils in shallower horizons:, very low in oleanane, and probably derived from Pre-Tertiary source (e.g. Fusulina-bearing Permian in Orba 1, Jurassic- Cretaceous in Sele 39 and Klamogun 1)

Aswan, N.I. Basuki & Thaw Zin Oo (2017)- Jurassic and Paleocene ichnofossil study of core camples from Bintuni Basin- Eastern Indonesia- comparison between shallow and deep marine ichnofossil associations. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 4p.
(Study of ichnofossils in neritic Jurassic and deep marine Paleocene reservoir sandstones of unnamed wells in Bintuni basin)

Babault, J., M. Viaplana-Muzas, X. Legrand, J. Van Den Driessche, M. Gonzalez-Quijanoe & S.M. Mudd (2018)- Source-to-sink constraints on tectonic and sedimentary evolution of the western Central Range and Cenderawasih Bay (Indonesia). J. Asian Earth Sci. 156, p. 265-287.
(Cenderawasih Bay contains >8 km thick series undated sediments. Suggest sediments started to accumulate in Cenderawasih Bay and onshore Waipoga Basin in Late Miocene since inception of growth of Central Range (12 Ma), resulting in up to 12.2 km sediment accumulation. Basin fill probably mainly siliciclastics from Ruffaer Metamorphic Belt and equivalent in Weyland Overthrust, with minor contributions from ophiolites, volcanic arc rocks and diorites. Local transtensional tectonics may explain unusually high rates of sedimentation in overall sinistral oblique convergence setting)

Bensaman, B., R. Al Furqan, M.F. Rosana & E.T. Yuningsih (2015)- Hydrothermal alteration and mineralization characteristics of Gajah Tidur Prospect, Ertsberg Mining District, Papua, Indonesia. In: ICG 2015, 2nd Int. Conf. and 1st Joint Conf. Faculty of Geology Universitas Padjaran and University of Malaysia Sabah, p. 17-25.
(online at: http://seminar.ftgeologi.unpad.ac.id/wp-content/uploads/2016/02/Hydrothermal-Alteration-and-Mineralization-Characteristics-of-Gajah-Tidur-Prospect-Ertsberg-Mining-District-Papua-Indonesia.pdf)
(Gajah Tidur prospect is deepest explored part of Grasberg Igneous Complex at elevation 1600- 3000m, almost 2.5 km below pre-mining surface. Bottom of Grasberg Cu-Au porphyry ore body seems to terminate at ~2750m elevation)

Bernadi, B., A. Reksahutama, I.G.A.N. Intan, Sarah, D.K. Duha, E.S. Silalahi & D. Miraza (2018)- Revitalization of Walio mature oil fields by identifying untapped oil in low quality reservoirs. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-158-E, 28p.
(Walio oil field 1973 discovery in Salawati Basin, mainly producing from Miocene-Kais reefal limestone. Producing since 1975 from >300 wells, with oil production peak at 57,800 BOPD in 1977-1978. Current oil production ~2200 BOPD with >99% water-cut. Oil API 33.1°. Strong aquifer support contributed to rel. high reservoir recovery factor (~44%). Poor-quality reservoir intervals may still be untapped))

Biq, C.C. (1978)- Taiwan vis-a-vis New Guinea: a comparison of their continent-arc collisions. Acta Oceanographica Taiwanica 8, p. 22-42.
(online at: tao.wordpedia.com/pdf_down.aspx?filename=JO00001053_8_22-42)
Taiwan and New Guinea collisional belts represent comparable continental platform- foldbelt- arc (ocean) successions. Sutures on both islands are zone of ophiolitic melange)

Birt, C., S. Dee, S. Wospakrik & M. Fitriannur (2017)- Estimating the amount of lateral movement on re-activated strike slip faults at the Tangguh gas fields- implications for reservoir mapping and structural compartmentalization. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-389-G, 24p.
(Bintuni Bay area with Tangguh gas fields with 3-way and 4-way closures formed by strike-slip movement. Long tectonic history: (1) Permian extension generated NW-SE grabens; (2) Inversions in Late Triassic, causing truncations at Base Jurassic unconformity and onlapping E-M Jurassic, thickening to S and E;(3) ?M-L Eocene-Oligocene ENE-WSW left-lateral strike-slip faults, with ~2 km or more displacement, and truncation at

Base Oligocene unconformity (base Kais carbonate); (4) Late Miocene- E Pliocene tilting due to flexural loading of Lengguru FB, and (5) Late Pliocene-Pleistocene left-lateral strike slip after Lengguru FB lockup, with several 100m of displacement)

Collier, B., N. Sabirin; S. Sirait, F.B. Widodo et al. (eds.) (2011)- Tembagapura: the mining community, the uniqueness, and the natural beauty of our surroundings. PT Freeport Indonesia, p.

Dipatunggoro, G. (2007)- Nikel lateritik di daerah Tanah Merah, Tablasufa dan Ormo, Kabupaten Jayapura, Propinsi Papua. Bull. Scientific Contr. (UNPAD) 5, 3, p. 173-181.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8150/3723)
('Lateritic nickel in the Tanah Merah, Tablasufa and Ormo regions, Jayapura Regency, Papua Province'. Up to 6% nickel (associated with Fe, Co and Cr) in laterites on weathered ultramafic rocks around Jayapura. Pretertiary ultramafic and metamorphic rocks of uplifted and exposed since E Miocene- present tectonics)

Francois, C., J. de Sigoyer, M. Pubellier, V. Bailly, A. Cocherie & J.C. Ringenbach (2016)- Short-lived subduction and exhumation in Western Papua (Wandamen peninsula): co-existence of HP and HT metamorphic rocks in a young geodynamic setting. Lithos 266-267, p. 44-63.
(Lengguru fold-thrust wedge of W Papua younger than 10Ma and result of oblique and fast subduction of Birds Head under Melanesian Arc. High P rocks in core of wedge in Wandamen peninsula, with metabasic eclogites and amphibolites observed as sheared 'knockers' in Mesozoic metasediments. Metasediments HP (~13-17 kbar; burial depth ~32-44 km); metabasic rocks peak pressure 17-23 kbar and 700-800 °C (burial depth 43-66 km?). U-Pb dating of zircons shows some magmatic cores with ages >300 Ma (= Australian craton margin volcanic arc). Most zircons metamorphic origin and Late Miocene age (5.6± 0.04 Ma- 8.1± 1.1Ma). N- S normal faults cross cut limb of anticline associated with present-day E-W extension. Young metamorphic ages suggest rapid subduction and exhumation event)

Fraser, T. (2016)- Risk and (possible) reward in West Papua: a tale of two PSC's. In: 2016 Technical Symposium Where from, where to, Indon. Petroleum Assoc. (IPA), Jakarta, p.

Gold, D.P. (2018)- The effect of meteoric phreatic diagenesis and spring sapping on the formation of submarine collapse structures in the Biak Basin, Eastern Indonesia. Geomorphology, p. *(in press)*
(Neogene carbonate units that extend offshore into Biak Basin SW of Biak and Supiori islands, with pockmarks, headless canyons and semi-circular collapse structures, identified in multibeam bathymetric imagery)

Gold, D.P., P. Burgess & M. Boudagher-Fadel (2017)- Carbonate drowning successions of the Birdǒs Head, Indonesia. Facies 63, 25, p. 1-23.
(online at: https://link.springer.com/content/pdf/10.1007%2Fs10347-017-0506-z.pdf)
(Anggrisi River section in E Birds Head of W Papua shows E Miocene (Te) Kais Lst platform carbonates overlain by ~20m thick heterolithic Burdigalian- Serravallian drowning sequence of progressively upward-deepening marine units. Uppermost brown packstone bed with Katacycloclypeus annulatus and Miogypsina antillea. Drowning sequence overlain by Tortonian Klasafet/ Klamogun marine clastics. Cause of platform drowning attributed to reduction in rates of carbonate accumulation due to excess nutrients. Duration of drowning event across Birds Head region ~9.5 My (18.0- 8.6 Ma))

Gold, D.P., L. White, I. Gunawan & M. Boudagher-Fadel (2017)- Relative sea-level change in western New Guinea recorded by regional biostratigraphic data. Marine Petroleum Geology 86, p. 1133-1158.
(Paleogeography of W New Guinea from Carboniferous- Present. Biostratigraphic data suggests two major transgressive-regressive cycles in regional relative sea-level, with highest sea levels in Late Cretaceous and Late Miocene and terrestrial deposition prevalent in Late Paleozoic and E Mesozoic. Sea levels dropped between Late Cretaceous and Paleogene, with widespread shallow water carbonate platform development in the M-L Eocene. Minor transgressive event in Oligocene. E Miocene collision marked by regional unconformity. Carbonate drowning event in M Miocene, etc.)

Gunawan, I., R. Hall & B. Sapiie (2014)- Triassic reservoir characteristics of the Bird's Head, New Guinea, Indonesia: new insight from provenance study. Int. Petroleum Techn. Conference (IPTC), Kuala Lumpur, 9p.
(Triassic- Jurassic Tipuma Fm sandstones and conglomerates sourced from acid volcanic, metamorphic and recycled sedimentary rocks to N and from N Australian Craton. Quartz provenance dominated by low-T metamorphics and volcanics with little plutonic origin. Youngest zircon ages indicate deposition in Triassic. Recycled zircon populations Permo-Triassic (205-275 Ma) and Proterozoic (~975 Ma, 1.4-1.6 Ga and 1.8-2.0 Ga) populations), with few grains of Archean age (2.8-3.2 Ga). Tipuma Fm probably not deposited in simple continental setting. Decline of volcanic quartz and increase in Carboniferous-Proterozoic zircons in Middle Member indicate reduced contribution of sediment from arc and increased contribution from N Australia)

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7205, Moon-Utawa-Ular Merah areas-Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix L, p. 186-196.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in M Miocene Moon Arc along N margin of Birds Head and coeval rocks in Utawa Arc (SE Birds Neck) and Ular Merah areas N of western Central Range (age-equivalent to Maramuni Arc in Mobile Belt of PNG). May have formed in N-facing arc along passive continental margin prior S-directed thrusting in Late Miocene (Melanesian orogeny). Ular Merah area centered on late E Miocene (17.4-16.6 Ma) porphyry system that intruded allochthonous Central Ophiolite Belt. No known deposits)

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7203, Western Medial New Guinea Magmatic Belt- Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix M, p. 197-211.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in Central Highlands of West Papua. Tract represents western part (W of Tasman Line) of 1800km long Medial New Guinea magmatic belt, an, E-W belt of discontinuous exposures of late Miocene- Pliocene igneous rocks in foldbelt of central New Guinea Island (incl. Central Birds Head) ('post-Maramuni Arc', more alkaline magmatism). No well-defined subduction zone associated with belt, although seismic tomography suggests existence of old subduction slabs in mantle under New Guinea. Includes Grasberg supergiant porphyry copper-gold deposit (~3 Ma))

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7204, Rotanburg-Taritatua Area- Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix N, p. 212-218.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in poorly-known Late Miocene to Pliocene-Pleistocene intrusive rocks N of Central Range. No mines, prospects, or known copper or gold occurrences in this segment)

Hammarstrom, J.M., B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 142pCu7208, Inner Melanesian arc terranes I- Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix R, p. 261-267.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in 1000 km-long Inner Melanesian Arc, a calc-alkaline arc that developed in Eocene- E Oligocene from SW-ward subduction of Pacific Plate. Corresponds with Melanesian Arc terrane of Cloos et al. (2005). In Indonesia in Birds Head/ N Coastal Irian Jaya Arc (incl. Waigeo, Yapen, Cycloops Mts?). Age-equivalent to accreted terranes in Adelbert-Finisterre area of PNG and New Britain Island. No known porphyry copper deposits or prospects)

Handyarso, A. & T. Padmawidjaja (2017)- Struktur geologi bawah permukaan Cekungan Bintuni berdasarkan data gaya berat. J. Geologi Sumberdaya Mineral 18, 2, p. 53-65.

(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/125/284)
('Subsurface geological structures of the Bintuni Basin based on gravity data analysis'. Identification of NW-SE trending folds onshore southern Birds Head)

Harrington, L., S. Zahirovic, N. Flament & D. Muller (2017)- The role of deep Earth dynamics in driving the flooding and emergence of New Guinea since the Jurassic. Earth Planetary Sci. Letters 479, p. 273-283.
(In New Guinea area periods of flooding and emergence since Jurassic inconsistent with magnitudes of global sea level changes, and suggest long-wavelength dynamic topography changes driven by subduction-driven mantle flow. Subduction at E Gondwana margin locally enhanced high eustatic sea levels from E Cretaceous (~145 Ma) to generate long-term regional flooding. Miocene dynamic subsidence associated with subduction of Maramuni Arc caused long-term inundation of New Guinea during period of global sea level fall)

Henley, R.W., F.J. Brink, P.L. King, C. Leys, J. Ganguly, T. Mernagh, J. Middleton, C.J. Renggli et al. (2017)- High temperature gas-solid reactions in calc-silicate Cu-Au skarn formation; Ertsberg, Papua Province, Indonesia. Contrib. Mineralogy Petrology 172, 11-12, 106, 19p.
(On 2.7-3.0 Ma Ertsberg East Skarn System, adjacent to Grasberg diorite intrusion and 2.5 km from giant 3.3 Ma Grasberg porphyry copper deposit. Formed through flux of magma-derived fluid through carbonate rock sequences at T> 600° C and P<50 MPa (~2 km depth?))

Hidayati, S., A. Cipta, A. Omang, R. Robiana & J. Griffin (2013)- Earthquake hazard map of Papua, Indonesia. In: Proc. 49th Annual Session Coord. Comm. Geoscience Progr. E and SE Asia (CCOP), Sendai, p. 61-72.
(online at: www.ccop.or.th/download/as/52as2.pdf)
(Probabilistic seismic hazard model, based on recognition of 9 tectonic plates, 14active thrust and strike-slip faults,2-3 subduction segment, and 9 zones for diffuse earthquakes (from historic earthquakes))

Hope, G.S. (1983)- The vegetation changes of the last 20,000 years at Telefomin, Papua New Guinea. Singapore J. Tropical Geography 4, p. 25-33.

Ikhwanudin, F. & C.I. Abdullah (2016)- The connection between ophiolite occurance and Yapen-Sorong Fault Zone (YSFZ), Papua, Indonesia. In: 78th EAGE Conf. Exh., Vienna 2016, Th P5 08, 5p.
(Sheared and brecciated ophiolitic rocks on NE Yapen island, unconformable over Wurui Limestone Fm (M Miocene?). Drifted and brecciated mainly in Late Miocene-Pliocene. Ophiolite is carried by Yapen-Sorong Fault Zone in strike-slip compressional regime)

Jost, B.M., M. Webb & L.T. White (2018)- The Mesozoic and Palaeozoic granitoids of north-western New Guinea. Lithos 312-313, p. 223-243.
(Late Paleozoic and E Mesozoic granitoids of NE Birds Head mainly small-medium size intrusions of Late Devonian- E Carboniferous (363-328 Ma) and latest Permian-Triassic (257-223 Ma) ages, intruding Silurian-Devonian Kemum Fm metasediments. Most peraluminous and derived from partial melts of metasedimentary continental crust. Minor mantle-derived material, especially in Permian-Triassic. Devonian-Carboniferous granitoids (Mariam Ngemona, Wasiani, etc. granites/granodiorites) and volcanics locally restricted. Late Permian-Triassic intrusions (Sorong, Anggi, Maransabadi, Kwatisore, Netoni, Sorong, etc.) likely part of long active continental margin subduction system spanning length of New Guinea, E Australia and Antarctica)

Kurniawan, A.P., B.N. Suwardi, F. Bahesti, S.M. Hadi, Hendarsyah & A.Prasetyo (2018)- Defining Kofiau sub-basin as the deepest part of Salawati Basin using satellite gravity interpretation approach. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-30-G, 19p.
(Deep, offshore Kofiau sub-basin W of Salawati basin is deepest part of Salawati Basin)

Kusnida, D., Subarsyah, E. Saputro & A. Ali (2016)- Initial studies of the marine geophysical survey in the offshore Waigeo, West Papua. J. Geologi Sumberdaya Mineral 17, 3, p. 171-177.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/16)
(Offshore N Waigeo in zone of oblique convergence of Australian and Pacific plates, and bound by left-lateral transform Sorong Fault Zone (SFZ) in S. Total magnetic intensities +200 nT to -150 nT indicate area with

rocks of oceanic origin with highs (terranes) and lows (basins). Deep SE-NW trending Waigeo Trough with up to 1000m of (Pliocene- Quaternary?) sediment is tectonic contact between island-terranes of Waigeo and Ayu islands and Pacific Oceanic crust)

Lambert, C.A. (2000)- Subsurface meso-scale structural geology of the Kucing Liar and Amole Drifts and petrology of the heavy sulfide zone, South Grasberg Igneous Complex, Irian Jaya, Indonesia. M.Sc. Thesis University of Texas at Austin, p. 1-. *(Unpublished)*

Lie, H.S., S.D. Puspita, R. Krisnandar & K. Ferari (2018)- Unlocking Mesozoic petroleum system potential of underexplored southern Bintuni Basin. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-575-G, 15p.
(Chevron discussion of petroleum potential of undrilled Mesozoic section in S Bintuni West Papua I and III blocks. Not much new)

Mardani, R. & P. Butterworth (2016)- Palaeocene reservoir depositional systems of the WD Field, Papua Barat Province: a play fairway opening discovery. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 43-TS-16, p. 1-19.
(Wiriagar Deep (WD) gas field in Birds Head/ Bintuni Bay first discovered by ARCO in 1994, with gas in stacked Waripi Fm Paleocene shallow marine and deep marine turbidite sandstone reservoirs (and M Jurassic sandstones). Three main reservoir depositional systems in 'classic' passive margin overall progradational (SE-directed?) Paleocene series, from basin floor lobes at base, through slope channel complexes to shelf edge deltas, and overlain by Eocene evaporites and Faumai Lst).)

Maryono, A. & D. Power (2013)- Gold endowment and metallogeny of the island of Papua. Proc. Indonesian Soc. Econ. Geol. (MGEI) Annual Convention 2013, Papua and Maluku Resources, Bali, p. 143-150.

Nauw, M., M. F. Riza, R. Mardani & P. Butterworth (2017)- Compartmentalization of Paleocene-aged deep water reservoirs at Wiriagar Deep, Papua Barat Province. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-392-G, 15p.
(Paleocene basin floor fan and slope channel sandstones of Wiriagar Deep field with gas trapped in large NW-SE closure, created during Oligocene compression and reactivated during Plio-Pleistocene. Reservoir compartmentalisation by combination of depositional facies and strike slip faults)

Noble, R., J. Decker, T. McCullagh, D. Sebayang & D. Orange (2016)- Kofiau and Cendrawasih Bay frontier basin exploration: from joint studies to post-drill assessment. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 6-TS-16, p. 1-18.
(Review of exploration activities in Kofiau Basin (NW of Birds Head) and Cendrawasih Bay (Waipoga) Basin (E of Birds Head. Kofiau basin NE-SW trending depocenter with transtensional evolution controlled by Sorong Fault Zone. Two episodes of basin formation (E Pliocene, M Pliocene- Recent), separated by deformation-erosion event. Cendrawasih Bay (Waipoga) Basin part of N New Guinea Plio-Pleistocene post-collisional clastic basin. Oil and gas seeps in both basins oil and gas seepage with biomarkers/isotopes showing Tertiary source rock(s). No details on three recent unsuccessful exploration wells)

Nugraha, H.D. (2018)- Characterisation of Palaeocene remobilised deposits utilising cores and image logs in the HN Field, Bintuni Basin: distribution and implications to reservoir geometry prediction. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-510-G, 21p.
(Slumps and remobilised debrites in Paleocene Waripi/ Daram Fm deepwater deposits of 'HN Field', Bintuni Basin, W Papua (= WD Field of Mardani and Butterworth, 2016 = Wiriagar Deep)

Nurwani, C., Z. Imran, C.I. Abdullah, S. Nurmala Mulyati & D.R. Aprillian (2017)- Hydrocarbon prospectivity of Cendrawasih Bay area. Int. Proc. Chemical Biological Environmental Engineering 101, 15, p. 106-112.
(online at: http://www.ipcbee.com/vol101/rp017_ICGES2017-E0010.pdf)
(Cendrawasih Bay covers Cendrawasih Basin and North Waipoga/Memberamo Basin in E. Underlain by Pacific oceanic and volcanic arc crust. Several wells drilled since 1973, with oil and gas shows. Reservoir

rocks in Pliocene-Pleistocene Memberamo Fm turbidites. Source rocks include shale of Miocene Makats Fm. Area high potential of hydrocarbons, thermogenic or biogenic)

Oktariano, O., S. Saputra, D. Dharmayanti, A. Wibisono & M.A.S. Baskoro (2016)- Exploration vague of offshore Semai area in Indonesia? Changing exploration paradigm into Pretertiary play based on drilling results, depositional environment, and geophysical data. In: Proc. 2016 SEG Int. Exp. Ann. Mtg., Dallas, Expanded Abstracts, p. 2030-2034.
(Offshore Semai area S of Bird's Head, Irian Jaya, with interaction of Australian, Pacific and Eurasian Plates. Some compressional events in Oligocene-Miocene, ending with Misool-Onin-Kumawa Ridge uplift in M Pliocene. New seismic generated three regional exploration plays, but 7 dry exploration wells in 2010-2012)

Penniston-Dorland, S. (2001)- Illumination of vein quartz textures in a porphyry copper ore deposit using scanned cathodoluminescence: Grasberg Igneous Complex, Irian Jaya, Indonesia. American Mineralogist 86, 5-6, p. 652-666.
(Textures in vein quartz from Grasberg Igneous Complex allow interpretation of history of fracture opening and infilling)

Perdana, A. (2015)- Exploration and mineral inventory at PT Freeport Indonesia. In: N.I. Basuki (ed.) Proc. Indonesian Soc. Econ. Geol. (MGEI) 7th Ann. Conv., Balikpapan, p. 57-66.

Pireno, G.E. (2008)- Potensi Formasi Sirga sebagai batuan induk di Cekungan Salawati, Papua. M.Sc. (S2) Thesis, Inst. Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('The potential of the Sirga Formation as a source rock in the Salawati Basin, Papua'. SF-1X well (2007) in Salawati Basin with oil and gas shows in Late Oligocene Sirga Fm sandstones, in SAR-1X well (2008) oil in pre-Kais sandstones, making M-Miocene Klasafet source rock unlikely. Oils from both wells waxy (3.6 wt%) with very low sulphur, heavy carbon isotopes (-22 to -23), pristane/phytane ratio 1.33- 2.61, with oleanane as biomarker of Tertiary land plants and diahopane/ neohopane as biomarker of shallow lacustrine source. Most likely source E Tertiary lacustrine rocks, possibly Sirga Fm deposited in extensional-graben system)

Prabowo, A., H. Samodra, S. Permanadewi & A. Ratdomopurbo (2017)- Determine Holocene rate of uplift of Waigeo Island area based on the counting of exposed *Ostrea* age using 14C Radiocarbon dating to site elevation. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 7p.
(Waigeo island NW of Birds Head. 14C dating of marginal marine Ostrea mollusc fossils from uplifted Miocene(??) Waigeo Fm limestone along S part of island gave ages of ~8200 and 11000 years at 110 and 70m above sea level, suggesting recent uplift rates of ~6.3- 13.4 mm/year)

Sahidu, M.R.H., S.A. Putri, C.S. Birt & R. Apriani (2018)- Integration of 2D analog and 3D high resolution seismic data for regional shallow overburden description in the Tangguh Field, Indonesia. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-G-85, 17p.
(Late Miocene-Pliocene Steenkool Fm thickens to E (by progressive onlap to W onto Top Late Miocene Top Kais Lst and thickening to E). Kais Lst drowned by influx of clastic material into rapidly evolving E-dipping foreland basin in-front of Lengguru foldbelt. Shallow marine Lower Steenkool Fm with shallow gas in W part of area. Fluvial-deltaic Upper Steenkool Fm with stacked coal beds in E of area. Shortening in Lengguru fold-thrust belt stopped in Pleistocene. Faulting in Steenkool formation by Plio-Pleistocene strike-slip tectonics, creating E-W faults. Upper Steenkool Fm eroded by Pleistocene unconformity E of Tangguh field)

Sapiie, B. (2007)- Strike-slip faulting and collisional delamination in the Central Range of West Papua, Indonesia. Proc. Joint Conv. 32nd HAGI, 36th IAGI and 29th IATMI, Bali 2007, p. 1001-1002. *(Extended Abstract)*
(Change in deformation style in Central Range from regional folding to localized strike-slip between ~4-2 Ma interpreted to be manifestation of short-lived change in relative plate motion between Australian and Pacific plates at 4 Ma (transform movement between Australian plate and short-lived Caroline plate).

Saragih, R.Y., A.K. Gibran, D.A.R. Prawiranegara, G.G. Arvillyn & A. Kusworo (2017)- Mesozoic source rock potential in Lengguru Basin, West Papua. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-273-G, 16p.
(Jurassic-Cretaceous Kopai Fm in NE part of Lengguru foldbelt rel. high organic richness (TOC up to 1.2-17.7%). Most samples Type III kerogen. High thermal maturity in samples from NE area (overmature). Hydrocarbon seeps)

Saragih, R.Y., G.M.L. Junursyah, F. Badaruddin & Alviyanda (2018)- Structural trap modelling of the Biak-Yapen basin as a Neogen frontier basin in North Papua. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-408-G, 25p.
(Biak Island and Supiori Islands interpreted as series of extensional fault blocks with >2000m of Neogene sediments, overlying Eocene arc volcanics)

Sarmili, L., F.K. Jevie & M.F. Rosiana (2009)- Keterdapatan mineral zirkon dan hubungannya dengan batuan metamorfik di Teluk Wondama, Papua. J. Geologi Kelautan 7, 1, p. 37-45.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/169/159)
('Occurrence of zircon minerals and their relationship to metamorphic rocks in Wondama Bay, Papua' (= Wandamen Bay).Zircon-bearing metamorhic schist and amphibolite of Roon Island along Wandamen Bay point to granitoid, continental crust composition of precursor rock)

Setiawan, Y., E. Syafron, N. Arbi, M. Hardenberg, M. Jones, H. Banjarnahor, Nakamoto, I. Argakosesoemah et al. (2016)- Chasing the Jurassic sand in Semai Basin, Papua. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 40-TS-16, p. 1-23.
(Since 2006 oil companies invested $600MM in unsuccessful exploration of Semai basin between Onin Peninsula/ Birds Head and Seram Trough (Trench). Tight Lower Jurassic sandstone penetrated in Lengkuas-1 well at 6500m TVDSS (63m gross, but not fully penetrated; porosity <1-2%), i.e. older than M Jurassic main reservoirs in Tangguh fields. Probably part of W-E (or SW to NE?) backstepping pattern in E-M Jurassic deltaic sandstones. Same age reservoir much shallower at Bawang Putih-1 and Serai-1 wells to E; also poor reservoir quality. Reduced porosity in E Jurassic sandstones due to deep burial (quartz overgrowth) and >3km of late structural uplift and inversion. With paleogeographic maps for E Jurassic, Paleocene, Miocene)

Setyadi , H., N. Wiwoho, B. Kusnanto, S. Widodo & N. Sugita (1999)- The lithogeochemistry and magnetic susceptibility properties of the Kucing Liar copper-gold skarn deposit, Ertzberg, Irian Jaya, and its implications for the mineral exploration. Proc. 28th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 2, p. 217-225.
(Kucing Liar 1992 discovery of multistage Cu-Au skarn/ replacement deposit from fluids emanating from W-SW side of Grasberg porphyry intrusive. Mainly in U Cretaceous Ekmai Fm and Paleogene Waripi Fm, along WNW-ESE reverse fault, at depth of 500-1500m below surface elevation of 3700m asl))

Setyaningsih, C.A. (2014)- Pollen Pra-tersier daerah Kepala Burung, Papua. Lembaran Publikasi Minyak dan Gas Bumi (Lemigas) 48, 1, p. 13-22.
(online at: www.lemigas.esdm.go.id/public/publikasi/lembar/14554130711989243592.pdf)
('Pre-Tertiary pollen of the Birds Head area, Papua'. Palynology of samples from Ainim River shows Late Permian Ainim Fm (Protohaploxypinus microcorpus zone, with Falcisporites australis, Lunatisporites noviaulensis, etc.), overlain by Late Cretaceous Jass Fm (Tricolporites apoxyexinus zone, also with Coniacian-Campanian planktonic foraminifera and nannofossils in samples G3-G7), overlain by Eocene (Florschuetzia trilobata zone). Permo-Triassic sediments deposited in terrestrial environment with some marine influence, Cretaceous mainly marine)

Sunyoto, W., G. de Jong & L. Soebari. (2012)- Porphyry and skarn Cu-Au deposits and its associated Cu-Au bearing intrusions of the Ertsberg District, Papua, Indonesia. In: Proc. Banda And Eastern Sunda Arcs, MGEI Annual Convention, Malang 2012, p. 279-281. *(Extended Abstract; no figures)*

Suseno, W.A., S. Zahnuarianto, Y.P. Wulandari & D. Miraza (2018)- The deeper potential in the Kepala Burung PSC, Salawati Basin: a review from current 3D seismic data. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-150-G, 15p.
(3D seismic surveys in Walio and Arar areas of Birds Head. Closures identified in deeper horizons below Kais carbonates, possibly Paleogene Waripi Fm or Jurassic Kembelangan Gp))

Tonggiroh, A. (2014)- Indikasi tipe endapan emas porfiri daerah Mamberamo, Provinsi Papua. Pros. 2014 Seminar Penelitian Teknologi Terapan 2014 (8), Hasanuddin University, Makassar, TG1, p. 1-6.
('Indications of a porphyry-type gold deposit in the Mamberamo area, Papua Province')

Wafforn, S. (2017)- Geo- and thermochronology of the Ertsberg-Grasberg Cu-Au mining district, west New Guinea, Indonesia. Ph.D.Thesis University of Texas at Austin, p. 1-356.
(online at: https://repositories.lib.utexas.edu/handle/2152/61523)
(Novel U/Pb depth profiling technique shows Grasberg Igneous Complex intrusive magmatism active from 3.6-3.1 Ma. Cu-Au mineralization started after intrusion of MGI (3.22 Ma) and predates EKI (3.20 Ma) and LKI (3.09 Ma). High grade core of the Grasberg deposit formed in <100 to 220 kyr. Ertsberg pluton (3.1-2.8 Ma) and other minor intrusions shows magmatism in district took less than 1 Myr. Rapid cooling of surface samples precludes presence of 2 km volcanic edifice overlying orebody. Garnets from Big Gossan skarn show skarn formed between 2.9–2.7 Ma)

Wafforn, S., S. Seman, J.R. Kyle, D. Stockli, C. Leys, D. Sonbait & M. Cloos (2018)- Andradite garnet U-Pb geochronology of the Big Gossan skarn, Ertsberg- Grasberg mining district, Indonesia. Economic Geology 113, 3, p. 769-778.
(Big Gossan Cu-Au skarn formed near contact between Cretaceous Ekmai limestone and Paleocene Waripi dolomitic limestone, adjacent to 3.1-2.8 Ma Ertsberg diorite. Andradite garnets dated as 2.9-2.7 Ma, compatible with district-wide zircon U-Pb geochronology and single 2.82 Ma phlogopite 40Ar/39Ar age for skarn. Confirm that Big Gossan was one of last ore-forming events in Ertsberg-Grasberg district)

Webb, M. & L.T. White (2016)- Age and nature of Triassic magmatism in the Netoni Intrusive Complex, West Papua, Indonesia. J. Asian Earth Sci. 132, p. 58-74.
(Zircon U-Pb dating of in Netoni Intrusive Complex in Tamrau Mountains along Sorong Fault Zone in N Birds Head suggests series of pulses of Triassic magmatism between 248- 213 Ma (earlier K-Ar ages of 241-208 Ma in Pieters et al. 1983, 1989). Extensive incorporation of country rock xenoliths into Netoni Intrusive Complex. Granitoids likely emplaced in Andean-style subduction belt along E Gondwana (New Guinea - E Australia) through much of Paleozoic. Volcanic ejecta produced along this arc potential source of detritus for Triassic and younger sedimentary rocks in New Guinea and E Indonesia)

White, L.T., R. Hall & I. Gunawan (2017)- Multiple tectonic mode switches indicate short-duration heat pulses in a Mio-Pliocene metamorphic core complex, West Papua, Indonesia. American Geophys. Union (AGU) Fall Meeting, New Orleans, V31D-02, 1p. *(Abstract only)*
(online at: https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/222305)
(Wandaman Peninsula at W side of Cenderawasih Bay almost entirely composed of metamorphic rocks, associated with Late Mio-Pliocene metamorphic core complex. Multiple phases of deformation, all within last few Myrs: (1) crustal extension and partial melting at 5-7 Ma according to new U-Pb data from metamorphic zircons; (2) extensional phase followed by two phases of folding; (3) overprinted by brittle extensional faults and uplift, continuing today)

Wibisono, A.D., Y.S. Dewi, O. Oktariano, B. Sapiie & I. Gunawan (2018)- Unlocking hydrocarbon potential in Bird's Head Papua Indonesia using integrated geophysical and geological evaluation. In: 8th EAGE Int. Geol. Geophysical Conf. Exhib., Saint Petersburg , p. *(Extended Abstract)*
(Distribution of Pre-Tertiary reservoir and source rock facies in E Indonesia influenced by old tectonic grains such as Paleozoic-Mesozoic grabens. New plays identified in Birds Head of W Papua (Triassic and Early Jurassic reservoir and Paleocene Daram Sandstone)

Widi, B.N. (2017)- Potensi endapan laterit kromit di daerah Dosay, Kabupaten Jayapura, Papua. Bul. Sumber Daya Geologi 12, 1, p. 1-12.
(online at: http://buletinsdg.geologi.esdm.go.id/index.php/bsdg/issue/archive)
('Potential of lateritic chromite deposits in the Dosay area, Jayapura Regency, Papua'. Presence of chromite in weathered ultramafic rocks of Cycloop Mountain Range. Chromite content in saprolite 1.3- 4.7%)

Wisesa, K.D., A. Mangala, H. Arbi, Qi Adlan & R.M.G. Gani (2017)- Distribution of Permian source rocks maturation related to Lengguru fold-thrust belt position in Bintuni Basin. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-405-SG, 10p.
(Maturity of Ainim Fm Permian source rocks in wells of Bintuni Basin varies from Ro 0,63% - 1.59%, and increases to NE, towards Lengguru fold-thrust belt (Ro 1.5% onshore Bintuni Bay). Gas in Bintuni fields likely came from NE (no details on wells, samples, uncontrolled maps))

Zakaria, F., I. Syafri & P. Wiguna (2017)- Hubungan antara phyllic alteration dengan nilai kekuatan batuan di Undercut Level Tambang Grasberg Block cave, PT Freeport Indonesia. Bull. Scientific Contr. (UNPAD) 15, 3, p. 233-242.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/15101/pdf)
('The relationship between phyllic alteration and rock strength value in the Grasberg mine Block Cave Undercut Level'. Grasberg Block Cave underground mine with three intrusion stages: Dalam (3.51 Ma), Main Grasberg (3.21 Ma) and Kali (3.1 Ma). Mineral alterations affect rock strength)

VIII.2. Misool (0)

VIII.3. Arafura Shelf (7)

Gumilar, I.S. (2017)- Periode deformasi Kenozoikum Kepulauan Aru, Cekungan Wokam, Maluku. J. Geologi Sumberdaya Mineral 18, 2, p. 89-103.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/186/281)
('Cenozoic deformation period in the Aru Islands, Wokam Basin, Moluccas'. Three periods of Cenozoic deformation on Aru island, all with strike slip faulting: Late Miocene NW-SE stress (SW-NE folds), Late Pleistocene extension, and late N-S lineations)

Kaswandi, A.A., F. Ferdian & D. Setiawan (2017)- Tectonostratigraphy of NW Edge Arafura platform. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 5p.
(Tectonostratigraphy of NW edge of Arafura Platform divided into (1) Prekinematic 1 and 2 (Proterozoic-Devonian), Syn-kinematic 1 (Permian- E-Triassic rifting; thickening towards NNE-SSW trending normal faults; ASM 1), Base-Jurassic unconformity, Post-kinematic 1 (backstepping M-L Jurassic- Cretaceous, thickening to W), Post-kinematic 2 (Paleogene- Miocene New Guinea Lst), Syn-kinematic 2 (E Pliocene extension at W platform edge) and Syn-kinematic 3 (Late Pliocene and younger Akimeugah foreland basin, thickening to NE; Aru Trough opening)

Kusnida, D. & T. Naibaho (2018)- Sediment core from the seafloor of Aru Trough, West Papua- Indonesia. J. Geologi Sumberdaya Mineral 19, 1, p. 1-7.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/334/332)
(Core ARU-3 from seafloor of Aru Trough W of Aru Islands at water depth of 3543m, 2.26m long. Mainly greenish clay. One thin possible ash layer)

Livsey, A. (2016)- Hydrocarbon exploration in the Arafura Sea- what works and what doesn't. In: 2016 Technical Symposium Where from, where to, Indon. Petroleum Assoc. (IPA), Jakarta, p. *(Abstract?)*

Oktariano, O., R.D. Pradhana, S.E. Saputra, B. Sapiie & I. Gunawan (2018)- Exploration new play in frontier basin Aru, Eastern Indonesia using new insight of geophysical and geological evaluation. In: 8th EAGE Int. Geol. Geophysical Conf. Exhib., Saint Petersburg , p. *(Extended Abstract)*
(On Pre-Tertiary in Aru area)

Patmawidjaya, T. & Subagyo (2014)- Penelitian gayaberat dan geomagnit Kepulauan Aru, Cekungan Wokam. J. Geologi Kelautan 12, 1, p. 1-14.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/241/231)
('Gravity and geomagnetic studies of the Aru Islands, Wokam Basin')

Subroto, E.A. & D. Noeradi (2008)- Petroleum system of the Paleozoic and Mesozoic formation intervals in the northern Arafura Sea, Papua, Indonesia. 8th Middle-East Geoscience Conf. Exh. (GEO 2008), Bahrein, 1p.
(Abstract only) (Geochemical analyses and modeling of outcrop and well samples (mainly W Papua; JTvG) suggest wo oil and gas source rocks: (1) Permian Aiduna Fm (TOC=1.3-6.6%, Ro 0.55%); (1) Jurassic-Cretaceous Kembelangan Gp. Basal Lower Kembelangan entered late maturity for hydrocarbon generation (Ro = 1.2%) at ~2 Ma and reached maturity at ~5-10 Ma. Paleozoic formations reached maturation during Mesozoic. Possible reservoirs porosity 5-15% and permeability 10-20 mD)

IX. CIRCUM-INDONESIA (1340)

IX.1. Andaman Sea Region (74)

Alam, M.A., D. Chandrasekharam, O. Vaselli, B. Capaccioni, P. Manetti & P.B. Santo (2004)- Petrology of the prehistoric lavas and dyke of the Barren Island, Andaman Sea, Indian Ocean. Proc. Indian Academy Sci. (Earth Planetary Sci.) 113, 4, p. 715-721.
(online at: https://www.ias.ac.in/article/fulltext/jess/113/04/0715-0721)
(Quaternary volcanics of Barren Island (Andaman Sea, Indian Ocean) evolved from source similar to that of Sunda Arc lavas of Sumatra/Java and is part of the same Neogene Inner Volcanic Arc)

Awasthi, N., J.S. Ray & and K. Pande (2015)- Origin of the Mile Tilek Tuff, South Andaman: evidence from 40Ar-39Ar chronology and geochemistry. Current Science 108, 2, p. 205-210.
(online at: www.currentscience.ac.in/Volumes/108/02/0205.pdf)
(Mile Tilek Tuff ~40m thick bedded dacitic-rhyolitic tuff deposit on S Andaman is one of several volcanic ash deposits in Andaman- Nicobar Islands that are evidence of large-scale volcanic eruption in SE Asia. Assumed ages Mio-Pliocene (~25-2 Ma), but new 40Ar-39Ar age for whole rock 0.73± 0.16 Ma. Chemically typical of subduction zone magmatism. Sr-Nd isotopes (87Sr/86Sr = 0.7073 and d Nd <0.9) suggest continental crustal contamination of magma, pointing to source volcano in Sumatra, possibly Ranau volcano in S Sumatra)

Ayyadurai, V., R. Nainar & C. Ojha (2015)- Mud volcanoes show gas hydrate potential in India's Andaman Islands. Oil and Gas J. 113, 2, p. 44-53.
(Minutes after M9.0 Sumatra-Andaman earthquake in 2004, mud volcanoes erupted on Diglipur Island in N Andaman. Eruptions activity linked to hydrocarbons)

Badve, R.M. & P. Kundal (1986)- Marine Cretaceous algae from the Baratang Formation, Andaman Islands, India. Bull. Geol. Min. Soc. India 54, p. 149-158.
(7 types of ?Cretaceous algae in calcareous sst in Baratang Gp, most of them new: Cayeuxia, Ethelia, Baratangia, Peyssonella, Permocalculus, Halimeda, etc. (possibly Paleogene?))

Badve, R.M. & P. Kundal (1987)- Solenoporacean algae from Paleocene to Oligocene rocks of Baratang Island Andaman, India. J. Geol. Soc. India 13, 4, p. 81-88.

Badve, R.M. & P. Kundal (1988)- *Distichoplax* Pia from Baratang Island, Andaman, India. Biovigyanam 14, p. 95-102.
(Distichoplax biserialis algae in Lower Eocene-Oligocene calcareous sst of Port Blair Gp, Baratang Island)

Badve, R.M. & P. Kundal (1998)- Dasycladacean algae from Palaeocene to Oligocene rocks of Baratang Island, Andaman, India. J. Geol. Soc. India 51, p. 485-492.
(Calcareous sst in Baratang Gp (Lw Paleocene- Lw Eocene) and Port Blair Group (M Eocene- Oligocene) yielded 4 dasyclad algae: Broeckella, Dissocladella, Neomeris and Trinocladus. Tethyan affinities)

Bandopadhyay, P.C. (2017)- Inner-arc volcanism: Barren and Narcondam islands. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 12, p. 167-192.
(Barren and Narcondam young volcanic islands of volcanic belt that extends from Java in E to Burma in N. Below Narcondam probably continental or transitional crust, below Barren Island oceanic lithosphere)

Bandopadhyay, P.C. & A. Carter (2017)- Introduction to the geography and geomorphology of the Andaman-Nicobar Islands. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 2, p. 9-18.
(online at: http://mem.lyellcollection.org/content/memoirs/47/1/9.full.pdf)
(Introduction to Andaman islands in NE Indian Ocean are segment of tectonically active accretionary wedge of Sunda subduction system, with dismembered ophiolites, volcanic arc rocks, trench-slope deposits, submarine fan turbidites, pelagic sediments, etc.)

Bandopadhyay, P.C. & A. Carter (2017)- Geological framework of the Andaman- Nicobar Islands. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 6, p. 75-93.
(Andaman-Nicobar archipelago at W margin of Andaman Sea is sediment-dominated accretionary wedge (outer-arc). Andaman accretionary ridge two distinct terranes, juxtaposed and telescoped into N-S trending fold-thrust belt along E margin of Indo-Australian oceanic plate. Pre-Cretaceous meta-sedimentary rocks, U Cretaceous ophiolites and Paleogene- Neogene sediments indicate rapid changes in lithology, sedimentology, environments and paleogeographic setting)

Bandopadhyay, P.C. & A. Carter (2017)- Mithakhari deposits. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 8, p. 111-132.
(Mithakhari Melange composed of conglomerates, sandstones, andesitic tuff, siltstone, mudstones, shale, carbonaceous shale and limestones. Coherent and chaotic units with olistoliths of pre-ophiolite metasediments, ophiolitic ultramafics and basalts and pelagic-hemipelagic sediments. Active andesite volcanism on arc massif E of Andaman arc on W margin of Burma-Thai-Malaya peninsula in Eocene- Oligocene, before opening of Andaman Sea in M Miocene)

Bandopadhyay, P.C. & A. Carter (2017)- Submarine fan deposits: petrography and geochemistry of the Andaman Flysch. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 9, p. 133-140.
(Andaman Flysch of Oligocene age marine turbidites from axially fed submarine fan. Intermittently exposed across entire chain of Andaman- Nicobar Islands)

Bandopadhyay, P.C. & A. Carter (2017)- The Archipelago Group: current understanding. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 11, p. 153-166.
(Neogene Archipelago Group overlies Oligocene and older turbidites and tectonic melanges of ophiolite and Mithakhari rocks. Deposited in intertidal and subtidal, nearshore and offshore shelfal environments)

Bandopadhyay, P.C. & B. Ghosh (2015)- Provenance analysis of the Oligocene turbidites (Andaman Flysch), South Andaman Island: a geochemical approach. J. Earth System Science 124, 5, p. 1019-1037.
(online at: www.ias.ac.in/article/fulltext/jess/124/05/1019-1037)
(Oligocene turbidites of Andaman Flysch along E coast of S Andaman Island. Geochemistry of av. 71% SiO2, etc., close to granite field. Combined geochemical, petrographic and paleocurrent data indicate mainly plutonic-metamorphic provenance, possibly Shan-Thai continental block of NE and E Myanmar)

Banerjee, D. (1967)- Upper Cretaceous microflora from middle Andaman Isles (India). Review Palaeobotany Palynology 5, p. 211-216.
(Baratang Fm of Middle Andaman Isles with mixed of Tertiary and Upper Cretaceous forms, the latter being more common (see also Mandal et al. 2003))

Carter, A.& P.C. Bandopadhyay (2017)- Seismicity of the Andaman-Nicobar Islands and Andaman Sea. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 14, p. 205-213.
(Seismicity across Andaman-Nicobar island arc and Andaman Sea. Magnitudes of displacements varied from dip-slip on S (Sumatran) segment to dip-slip and strike-slip on Andaman-Nicobar segment. Andaman section more steeply dipping slab and thicker sediment cover compared to Sumatra where coupling with overlying plate is stronger. Seismicity in Andaman Sea spreading centre consistent with normal faulting and dyke injection)

Cawthern, T. (2013)- Reconstructing the Late Miocene to Recent volcanic, geologic, and oceanographic evolution in the Andaman Sea and Northern Bay of Bengal, Northeast Indian Ocean. Ph.D. Thesis University of New Hampshire, p. 1-118.

(Reconstruction of volcanic, geologic, and oceanographic evolution in the Andaman Sea and N Bay of Bengal in last -9.4 Myrs. Geochemistry of volcanic ashes from Andaman Sea suggests they were derived from N Sumatra source)

Chakraborty, A.A. & A.K. Ghosh (2015)- *Acrobotrys disolenia* Haeckel from the Late Miocene of Andaman and Nicobar Islands. Current Science 108, 11, p. 1990-1993.
(On radiolarian species from Late Miocene of Neill Island, Andaman Islands. Previous records of A. disolenia mainly from DSDP/ODP cores of Pacific Ocean and South China Sea)

Chakraborty, A.A. & A.K. Ghosh (2016)- Ocean upwelling and intense monsoonal activity based on late Miocene diatom assemblages from Neil Island, Andaman and Nicobar Islands, India. Marine Micropaleontology 127, p. 26-41.
(Late Miocene (Tortonian) diatoms in outcrop samples from Neil Island with 82 taxa/35 genera. Two distinct groups, dominated by (1) Thalassionema nitzschioides and T. longissima and (2) Actinocyclus ellipticus, Azpeitia nodulifera, Coscinodiscus asteromphalus and C. radiatus. Dominance of upwelling diatom taxon Thalassionema nitzschioides confirms strong Late Miocene monsoonal activity in study area)

Chandra, A. & R.K. Saxena (1998)- Lithostratigraphy of the Car Nicobar Island, Andaman and Nicobar Islands, India. Geophytology 26, p. 33-38.

Chandra, A., R.K. Saxena & A.K.Ghosh (1999)- Coralline algae from the Kakana Formation (Middle Pliocene) of Car Nicobar Island, India and their implication in biostratigraphy, palaeoenvironment and palaeobathymetry. Current Science 76, p. 1498-1502.

Chopra, N.N. (1985)- Gas hydrate an unconventional trap in fore-arc regions of Andaman offshore. Bull. Oil and Natural Gas Corporation (ONGC) 22, 1, p. 41-54.

Clift, P.D. (2017)- Regional context of the geology of the Andaman-Nicobar accretionary ridge. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 3, p. 19-26.
(Andaman- Nicobar accretionary ridge along N extension of Java-Sumatra convergent margin is forming by accretion and underplating of sediments off-scraped from obliquely colliding Bengal Fan. Net accretion low (~28%; rest subducted mostly into upper mantle). Subduction initiated at ~95 Ma, but large-scale subduction accretion likely accelerated in E Miocene)

Das, S., S. Mohan, R.S. Waraich, N. Singh & S. Bankwal (2010)- Exploration targets with speculative petroleum system in different arc setups of Andaman Basin, India. Proc. 8th Int. SPG Conf. Exp. on Petroleum Geophysics, Hyderabad, p-126, p. 1-9.
(online at: https://www.spgindia.org/2010/126.pdf)
(On hydrocarbon prospectivity in three tectonic settings of Andaman basin (fore arc, volcanic arc, back arc))

Devdas, V., S. Varghese, M. Kartikeyan & M.S. Pathan (2016)- The morphological setup of Andaman-Nicobar trench and accretionary prism: a study using multibeam bathymetry. Indian J. Geosciences 69, 3-4, p. 215-222.

Ehrenberg, C.G. (1850)- Uber ein weit ausgedehnte Felsbildung aus kieselschaligen Polycistinen auf den Nicobaren-Inseln als erstes Seitenstuck des Polycystinen-Gesteins von Barbados der Antillen. Berliner Monatsberichte/ Verhandlungen Kon. Preussische Akademie Wissenschaften zu Berlin 1850, p. 476-478.
(online at: https://www.biodiversitylibrary.org/item/41527#page/482/mode/1up)
('On an extensive rock formation composed of siliceous Polycystina on the Nicobar Islands, etc.'. Brief note on Islands Car Nicobar and Comarta with core of syenitic and serpentiniferous gabbro, covered by(?) marls-calcareous siltstones rich in Polycystina (= radiolaria). Over 100 species (one of first reports of radiolaria-rich (Miocene?) rocks from Andaman-Nicobar Islands))

Gahalaut, V.K., B. Kundu, S.S. Laishram, J. Catherine, A. Kumar, M.D. Singh, R.P. Tiwari, R.K. Chadha, S.K. Samanta, A. Ambikapathy, P. Mahesh, A. Bansal & M. Narsaiah (2013)- Aseismic plate boundary in the Indo-Burmese wedge, northwest Sunda Arc. Geology 41, 2, p. 235-238.
(GPS measurements across Sagaing fault suggest ~20 mm/yr of relative plate motion of ~36 mm/yr between India and Sunda plates accommodated at Sagaing fault through dextral strike-slip motion. Steeply dipping Churachandpur-Mao fault in Indo-Burmese Wedge accommodates remaining ~18 mm/yr through dextral strike-slip)

Ghosh, A.K. & S. Sarkar (2013)- Facies analysis and paleoenvironmental interpretation of Piacenzian carbonate deposits from the Guitar Formation of Car Nicobar Island, India. Geoscience Frontiers 4, 6, p. 755-764.
(online at: www.sciencedirect.com/science/article/pii/S1674987113000285)
(Piacenzian (late Pliocene) Guitar Fm carbonates in Car Nicobar Island (S of Andaman Islands) rich in coralline algae. Deposited in shallow marine, reefal setting)

Ghosh, B., D. Bandyopadhyay & T. Morishita (2017)- Andaman- Nicobar ophiolites, India: origin, evolution and emplacement. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 7, p. 95-110.
(Andaman- Nicobar ophiolites discontinuous bodies along E margin of Andaman- Nicobar Islands. Composed of mantle rocks overlain by crustal rocks with thin transition zone. Mantle peridotites and volcanic rocks great variability, demonstrating influence of subduction-related magmatism and origin in supra-subduction zone. Final emplacement unlike typical Tethyan-type ophiolites because, before final emplacement over Indo-Burma-Andaman microcontinent subduction margin charged with thick sediments from delta systems to N that accreted at leading age of overriding plate)

Ghosh, B., S. Mukhopadhyay, T. Morishita, A. Tamura S. Arai, D. Bandyopadhyay et al. (2018)- Diversity and evolution of suboceanic mantle: constraints from Neotethyan ophiolites at the eastern margin of the Indian plate. J. Asian Earth Sci. 160, p. 67-77.
(Four Neotethyan Cretaceous ophiolite bodies (Nagaland, Manipur, Andaman island and Rutland island) along E margin of Indian plate, all belonging to W ophiolite belt of Indo-Burman Ranges (continuation of Sumatran fore-arc). Gross similarities with Philippine Sea samples. Geotectonic setting between Mid-ocean ridge and back-arc affinity. Plagiogranites of arc affinity suggest later arc event or back-arc origin of ophiolites)

Gupta, S. M. & M.S. Srinivasan (1992)- Late Miocene radiolarian biostratigraphy and paleoceanography of Sawai Bay Formation, Neill Island, Andamans, India. Micropaleontology 38, 3, p. 209-235.
(Late Miocene radiolarian zones Stichocorys peregrina, Didymocyrtis penultima and D antepenultima in mudstones of Sawai Bay Fm, Neill Island, Andamans. Cluster analysis of 45 taxa suggest colder and warmer periods due to monsoonal upwelling during warmer periods (5.0-6.3 and 8.5-7.7 Ma). Basinal shallowing during Late Miocene)

Jafar, S.A. (1985)- Discovery of mixed coccoliths from mud volcanoes of Baratang Island, Andamans, India. Current Science 54, 4, p. 170-173.
(Coccoliths from mud volcanoes in W Baratang Island with mixed coccolith assemblages, with latest Eocene as youngest elements. Also common complete Campanian- Danian section suggested present in subsurface)

Jha, P., D. Ros, A.d. Alessandrini & M. Kishore (2010)- Speculative petroleum system and play model of East Andaman Basin from regional geology and basin evolution concepts: addressing the exploration challenges of an extreme frontier area. 8th Biennial SPG Int. Conf. Petroleum Geophysics, Hyderabad 2010, P-261, 8p.
(online at: https://www.spgindia.org/2010/261.pdf)
(Recent ENI exploration activities in deepwater East Andaman Basin revealed presence of unexplored rift set-up, on trend with North Sumatra and Mergui rift basins)

Jha, P., D. Ros & M. Kishore (2012)- Seismic and sequence stratigraphic framework and depositional architecture of shallow and deepwater postrift sediments in East Andaman Basin: an overview. GEO India Conf. 2011, New Delhi, 10p. *(Extended Abstract)*

(online at: www.searchanddiscovery.com/documents/2012/50566jha/ndx_jha.pdf)
(Deepwater East Andaman Basin along W flank of NE-SW trending Mergui Ridge with Eo-Oligocene rift section overlain by up to 2500m of M Miocene and younger post-rift with typical deepwater depositional architecture. NE-SW trending sea-floor spreading centre came into existence at C Andaman Basin area)

Koley, T., C.S. Anju, S. Parhi & S. Das (2017)- Report of foraminifera in the Andaman Flysch Group of rocks in South Andaman and its implication. Indian J. Geosciences 70, 2, p. 161-168.

Kumar, A. (2011)- Geochemical and isotopic studies of rocks from the Barren Island Volcano and Andaman subduction zone, India. Ph.D. Thesis, Maharaja Sayajirao University of Baroda, Vadodara, India, p. 1-218.

Kundal, P. & K.M. Wanjarwadkar (2002)- On stratigraphy, age and depositional environment of algal limestone of Middle Andaman Island, Andaman, India. Gondwana Geol. Mag. 17, 2, p. 103-108.
(Occurrence of Daviesina spp. in limestone exposed as detached mounds near Burmadera, Tugapur and Buddanala in Middle Andaman island suggests Thanetian age)

Kundal, P. & K.M. Wanjarwadkar (2003)- Dasycladacean algae from Late Paleocene limestone of Middle Andaman Island, Andaman, India: implication to paleoenvironments, paleobathymetry and stratigraphy. Gondwana Geol. Mag., Spec. Vol. 6, p. 277-288.
(Late Paleocene algal limestone of Burma Dera Mb of U Cretaceous- Eocene Baratang Fm of Middle Andaman Island with 6 species of dasycladacean algae, incl. Acroporella, Cymopolia spp., Furcoporella, Trinocladus, etc.. Associated with foram Daviesina spp. Tropical assemblage with Tethyan affinities)

Limonta, M., A. Resentini, A. Carter, P.C. Bandopadhyay & E. Garzanti (2017)- Provenance of Oligocene Andaman sandstones (Andaman-Nicobar Islands): Ganga-Brahmaputra or Irrawaddy derived?. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 10, p. 141-152.
(Oligocene flysch exposed in Andaman-Nicobar Islands dominated by strong continental crust signal with minor arc contribution, similar to Paleogene Bengal Fan sediments. Type section on S Andaman closer affinity to provenance of modern Irrawaddy)

Malik, J.N., C. Banerjee, A. Khan, F.C. Johnson, M. Shishikura, K. Satake & A.K. Singhvi (2015)- Stratigraphic evidence for earthquakes and tsunamis on the west coast of South Andaman Island, India during the past 1000 years. Tectonophysics 661, p. 49-65.
(Stratigraphic records from W coast of S Andaman Island with evidence of three historical transoceanic tsunamis during past 1000 yrs: (I) predating AD 800, 35-40 cm t fine gravel to coarse sands with broken shell fragments ; (II) ~AD 660-800, 20-25cm coarse sand and broken shell fragments; (III) ~AD 1120-1300, 50 cm thick sand. December 2004 tsunami resulted in deposition of 15cm m-c sand)

Mandal, J., A. Chandra & A.P. Bhattacharyya (2003)- Palynology of the Baratang Formation, Andaman-Nicobar Islands and the significance of reworked palynomorphs. The Palaeobotanist 52, p. 97-112.
(Spores-pollen and dinoflagellate cysts data from Baratang Fm of Baratang Island indicate Early- Late Eocene ages and close relationship between Andaman and Myanmar floras. Associated with common reworked Permian, Triassic and Jurassic-Cretaceous palynomorphs of Gondwanan affinity, suggesting Chindwin Basin of Myanmar mainly supplied reworked palynomorph-bearing sediments)

Morley, C.K. (2016)- Cenozoic structural evolution of the Andaman Sea: evolution from an extensional to a sheared margin. In: M. Nemcok et al. (eds.) Transform margins: development, controls and petroleum systems, Geol. Soc., London, Spec. Publ. 431, p. 39-61.
(Andaman Sea developed from margin where Palaeogene back-arc collapse closed mid-Cretaceous back-arc oceanic basin, and resulted in collision between island arc crust to W and W margin of Sundaland. Subsequent E-W to WNW-ESE extension in Late Eocene–Oligocene resulted in highly extended continental crust under Alcock and Sewell rises and E Andaman Basin, and moderately extended crust in Mergui-N Sumatra Basin. As

India coupled with W Myanmar, margin became dominated by dextral strike-slip and NNW–SSE transtensional deformation during Miocene)

Morley, C.K. (2017)- Cenozoic rifting, passive margin development and strike-slip faulting in the Andaman Sea: a discussion of established v. new tectonic models. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 4, p. 27-50.
(Andaman Sea evolved from near-pure extension (WNW-ESE) in Late Palaeogene, to oblique extension (NNW-SSE) in Neogene, to strike-slip-dominated deformation in Late Miocene-Recent, probably reflecting switch from slab rollback-driven extension to India coupling with Myanmar. Possible revisions to traditional models for Andaman Sea: (1) Alcock and Sewell rises may be hyperextended continental or island arc crust, not Miocene oceanic crust; (2) E Andaman Basin mainly underlain by strongly necked to hyper-extended continental crust, not oceanic crust; or (3) C Anadaman Basin oceanic crust of Miocene, not Pliocene-Recent age)

Morley, C.K. & M. Searle (2017)- Regional tectonics, structure and evolution of the Andaman-Nicobar Islands from ophiolite formation and obduction to collision and back-arc spreading. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 5, p. 51-74.
(Proposed model for Cretaceous- Cenozoic development of Sumatra-Andaman-Myanmar region suggests continuity of single continental mass between Myanmar and Sumatra during Cenozoic, E Cenozoic ophiolite emplacement as imbricate slices in accretionary complex and no emplacement of a major overthrusting oceanic slab. Subsequent collisional deformation further dismembered ophiolites. ~30° CW rotation of SE Asia occurred following Asia- India collision, accompanied by transition from paired Andean-type magmatic belt to regional oblique-slip and strike-slip tectonics. In Neogene Andaman sea region became dominantly transtensional, while Myanmar in Late Neogene became transpressional)

Mukhopadhyay, B., S. Dasgupta & P. Mukherjee (2016)- Slab tear and tensional fault systems in the Sundaï Andaman Benioff zone: implications on tectonics and potential seismic hazard. Geomatics Natural Hazards Risk 7, 3, p. 1129-1146.
(online at: www.tandfonline.com/doi/full/10.1080/19475705.2015.1011242)
(Multiple transverse slab tear faults and longitudinal trench-parallel extensional faults on top part of Benioff zone in Sunda-Andaman arc)

Rai, J. (2006)- Late Miocene siliceous endoskeletal dinoflagellates from the Sawai Bay Formation, Neill Island, Andaman Sea, India. J. Micropalaeontology 25, 1, p. 37-44.
(online at: https://www.j-micropalaeontol.net/25/37/2006/jm-25-37-2006.pdf)
(Rare siliceous spicules of endoskeletal dinoflagellates (Actiniscus spp.) in Late Miocene Sawai Bay Fm on Neill Island (E of South Andaman Island). Associated with calcareous nannofossils of Discoaster berggrenii subzone (CN9A/ NN11))

Rajendran, C.P., K. Rajendran, V. Andrade & S. Srinivasalu (2013)- Ages and relative sizes of pre-2004 tsunamis in the Bay of Bengal inferred from geologic evidence in the Andaman and Nicobar Islands. J. Geophysical Research, Solid Earth 118, p. 1345-1362.
(Geologic evidence along N part of 2004 Aceh-Andaman rupture suggests region generated five tsunamis in prior 2000 years. 2004 tsunami deposits mainly organic debris, sand sheets, coral debris and boulder deposits. Distant and geomorphologically sheltered sites higher potential for tsunami deposit preservation)

Rajendran, K. & H.K. Gupta (1989)- Seismicity and tectonic stress field of a part of the Burma-Andaman-Nicobar Arc. Bull. Seismological Soc. America 79, 4, p. 989-1005.
(Direction of maximum compression in Burma- Andaman- Nicobar region NE-SW to N-S, compatible with postulated motion of Indian Plate)

Raju, K.A.K. (2005)- Three-phase tectonic evolution of the Andaman backarc basin. Current Science 89, 11, p. 1932-1937.

(online at: www.iisc.ernet.in/currsci/dec102005/1932.pdf)
(Andaman bacarc basin 3-phase tectonic evolution: Late Oligocene spreading centre jump, M Miocene- E Pliocene rifting and extension, followed by true seafloor spreading since 4 Ma)

Rao, P.B.V.S., M. Radhakrishna, K. Haripriya, B.S. Rao & D. Chandrasekharam (2016)- Magnetic anomalies over the Andaman Islands and their geological significance. J. Earth System Science 125, 2, p. 359-368.
(online at: www.ias.ac.in/article/fulltext/jess/125/02/0359-0368)
(Regional magnetic survey over Andaman Islands shows intermediate-high amplitude magnetic anomalies over areas of exposed ophiolite rocks along E coast of North, Middle and South Andaman Islands. 2D modelling along E-W profiles indicate ophiolite bodies extend to ~5-8 km depth and correlate with mapped fault zones)

Ray, D., S. Rajan & R. Ravindra (2012)- Role of subducting component and sub-arc mantle in arc petrogenesis: Andaman volcanic arc. Current Science 102, 4, p. 605-609.
(online at: www.currentscience.ac.in/Volumes/102/04/0605.pdf)
(Trace element ratios of arc lavas from Barren and Narcondam volcanoes of Andaman Islands group: Narcondam lavas (mostly andesitic) with subduction component of sediment fluid and melt. Barren Island lavas (mostly basaltic) ratios, indicative of subduction component from altered ocean crust)

Ray, J.S., K. Pande & N. Awasthi (2013)- A minimum age for the active Barren Island volcano, Andaman Sea. Current Science 104, 7, p. 934-939.
(online at: www.currentscience.ac.in/Volumes/104/07/0934.pdf)
(Barren Island of Andaman Sea is only active volcano in Indian territory. Tephra (ash) layers in Andaman Sea sediment core, 32 km to SE, with tephra layers as old as ~70 ka, and with plagioclase separatesas old as 1.8 ± 0.4 Ma, possibly represents age of older rocks in plumbing system of volcano)

Rodolfo, K.S. (1967)- Marine geology of the Andaman Basin, northeastern Indian Ocean. Ph.D. Thesis University of Southern Calfornia, Los Angeles, p. 1-316.

Sachin, R., S. Verma & T. Pal (2017)- Petrochemical and petrotectonic characterisation of ophiolitic volcanics from Great Nicobar island Andaman-Sumatra belt. J. Geol. Soc. India 90, 1, p. 85-92.
(Great Nicobar island ophiolite restricted to E coast, as small isolated outcrops in Oligocene sediments terrain. Only upper part of ophiolite suite, with pillow basalts, massive andesite and pyroclastic andesite. In Andaman Islands dismembered ophiolite with complete ophiolite stratigraphy within Eocene sediments. Ophiolitic rocks in Great Nicobar island similar to Sunda outer arc ridge)

Saha, A., M. Santosh, S. Ganguly, C. Manikyamba, J. Ray & J. Dutta (2018)- Geochemical cycling during subduction initiation: evidence from serpentinized mantle wedge peridotite in the south Andaman ophiolite suite. Geoscience Frontiers (Beijing), 21p. *(in press)*
(online at: https://www.sciencedirect.com/science/article/pii/S167498711830032X)
(Serpentinized Cretaceous- Paleocene peridotites (dunites) exposed in S Andaman representing tectonized mantle section of e ophiolite suite. Geochemical features suggest contributions from boninitic mantle melts and substantiate subduction initiation process by rapid slab roll-back with extension/ seafloor spreading in intra-oceanic forearc regime)

Sarkar, S. & A.K. Ghosh (2014)- Evaluation of coralline algal diversity from the Serravallian carbonate sediments of Little Andaman Island (Hut Bay), India. Carbonates and Evaporites 30, 1, 13p.
(Palaeodiversity of coralline algae in Serravallian Long Fm reefal carbonates of SE Little Andaman Island (Hut Bay). Nine genera, incl. Lithothamnium, Lithoporella, Corallina, etc.)

Satyavani, N., K. Sain & V. Jyothi (2014)- Gas hydrate occurrences in the Andaman offshore, India- seismic inferences. J. Indian Geophys. Union 18, 4, p. 440-447.
(online at: http://www.igu.in/18-4/3-paper.pdf)
(Seismic data in Andaman offshore E of Andaman islands shows prominent bottom-simulating reflector (BSR) at ~575m below seafloor, indicating presence of zone of gas hydrates and free gas below BSR)

Saxena, R.K., A.K Ghosh & A. Chandra (2005)- Calcareous algae from the limestone unit of Hut Bay Formation (Late Middle Miocene) of Little Andaman Island, India. In: J.P. Keshri & A. Kargupta (eds.) Glimpses of Indian phycology, Bishen Singh Mahendra Pal Singh Press, Dehra Dun, p. 275-301.
(Late M Miocene calcareous algae assemblage from limestone unit of Hut Bay Fm of Little Andaman Island with 13 species of coralline red algae (Lithophyllum, Lithothamnion, Amphiroa, etc.) and Halimeda-type green algae)

Sharma, V., J. Daneshian & D.L. Bhagyapati (2011)- Early Neogene radiolarian faunal turnover in the northern Indian Ocean: evidence from Andaman-Nicobar. J. Geol. Soc. India 78, 2, p. 157-166.
(Two intervals of faunal turnover suggested by E-M Miocene radiolarians from Andaman-Nicobar, in Stichocorys wolffii -Calocycletta costata -Dorcadospyris alata zones: (1) latest E Miocene (upward increase in cold water species and decreasing diversity; (2) in M Miocene Dorcadospyris alata Zone at ~14.8-12.7 Ma, faunal turnover correlated with M Miocene cooling)

Sharma, V. & S. Singh (1997)- Late Neogene radiolarian events in Andaman-Nicobar Islands, Northeast Indian Ocean. Micropaleontology 43, p. 21-28.
(11 radiolarian events identified in Late Miocene - E Pliocene of Andaman-Nicobar islands)

Sharma, V. &, M.S. Srinivasan (2007)- Geology of Andaman-Nicobar: the Neogene. Capital Publishing Co., New Delhi, p. 1-163.

Sheth, H.C., J.S. Ray, R. Bhutani, A. Kumar & R.S. Smitha (2009)- Volcanology and eruptive styles of Barren Island: an active mafic stratovolcano in the Andaman Sea, NE Indian Ocean. Bull. Volcanology 71, 9, p. 1021-1039.
(online at: http://www.mantleplumes.org/WebDocuments/shethetal2009-bv.pdf)
(Barren Island little known volcano in Andaman Sea, and northernmost active volcano of Great Indonesian arc. Recent eruptions (1991, 1994-95, 2005-06) produced aa lava flows of basalt and basaltic andesite and tephra)

Shrivastava, J.P. & V. Sharma (2014)- Compositional variation in magma through Early Neogene in the Northeast Indian Ocean: a testimony from glass shards. J. Geol. Soc. India 84, 2, p. 181-186.
(Volcanic ash/ glass shards widely distributed in E Miocene marine succession of Andaman-Nicobar Islands, also few records from early M Miocene (~21-15 Ma). Range in composition from basalt to rhyolite. Andesite/ basalt-andesite most common, implying island arc tectono-magmatic setting, possibly in Indonesian region)

Singh, O.P. & S.A. Jafar (1995)- Late Miocene discoasters from Sawai Bay Formation, Neill Island, Andaman Sea, India. The Palaeobotanist 44, p. 189-206.
(21 species of Late Miocene discoasters from Sawai Bay Fm. Discoster berggrenii and D quinqueramus common forms. Calcareous nannofossil subzone CN9A = lower NN11)

Singh, S.C. & R. Moeremans (2017)- Anatomy of the Andaman-Nicobar subduction system from seismic reflection data. In: P.C. Bandopadhyay & A. Carter (eds.) The Andaman- Nicobar accretionary ridge: geology, tectonics and hazards, Geol. Soc., London, Mem. 47, Chapter 13, p. 193-204.

Srinivasan, M.S. & R.J. Azmi (1976)- Contribution to the stratigraphy of Neill Island, Ritchieǿs Archipelago, Andaman Sea. In: M.S. Srinivasan (ed.) Proc. VI Indian Colloquium on Micropaleontology and Stratigraphy, Devijyoti Press, Varanasi, p. 283-301.

Srinivasan, M.S. & R.J. Azmi (1976)- New developments in the Late Cenozoic lithostratigraphy of Andaman-Nicobar Islands, Bay of Bengal. In: M.S. Srinivasan (ed.) Proc. VI Indian Colloquium on Micropaleontology and Stratigraphy, Devijyoti Press, Varanasi, p. 302-327.

Srinivasan, M.S. & B.K. Chatterjee (1981)- Stratigraphy and depositional environments of Neogene limestones of Andaman-Nicobar Islands, Northern Indian Ocean. J. Geol. Soc. India 22, 11, p. 536ï 546.

(On rel. widespread E Miocene- Pleistocene limestones of Andaman-Nicobar islands)

Srinivasan, M.S. & V. Sharma (1969)- Miocene foraminifera from Hut Bay, Little Andaman Island, Bay of Bengal. Cushman Found. Foraminiferal Research 20, 3, p. 102-105.
(Brief paper listing 86 species of bathyal (probably >600m water depth) small benthic and 25 species of planktonic forams(70% of fauna) in Late Miocene (Tortonian) of Little Andaman Island)

Streck, M.J., F. Ramos, A. Gillam, D. Haldar & R.A. Duncan (2010)- The intra-oceanic Barren Island and Narcondam Arc volcanoes, Andaman Sea: implications for subduction inputs and crustal overprint of a depleted mantle source. In: J. Ray et al. (eds.) Topics in Igneous Petrology, Springer Verlag, p. 241-273.
(Active Barren Island and Pleistocene Narcondam volcanoes are only two subaerially exposed Andaman arc volcanoes, rising from 1000- 2300m deep seafloor of Andaman Sea, and associated with subduction of Indian plate beneath Burma plate. Lavas at Barren Island basalt to andesite, Narcondam volcano andesite to silicic andesite/dacite. Isotopic values from Barren Island likely caused by assimilation of extended continental crust and/or sediments from Irrawaddy Delta fan at Myanmar continental margin)

Subba Rao, P.B.V., M. Radhakrishna, K. Haripriya, B. Someswara Rao & D. Chandrasekharam (2016)- Magnetic anomalies over the Andaman Islands and their geological significance. J. Earth System Science 125, 2, p. 359-368.
(online at: www.ias.ac.in/article/fulltext/jess/125/02/0359-0368)
(Andaman Islands part of outer-arc accretionary complex of Andaman-Sumatra active subduction zone. Regional magnetic survey revealed intermediate-high amplitude magnetic anomalies, correlatable with areas of exposed ophiolite rocks along E coast of N, M and S Andaman Islands. Modelling indicates ophiolite bodies extend to depth of ~5-8 km and spatially correlate with mapped fault/thrust zones)

Thompson, P. (2018)- From Indonesia to Myanmar: a review of seismic images across the Indo-Australian/ Sunda plate margin: The anatomy of a subduction zone in space & time. Third AAPG/EAGE/MGS Oil and Gas Conf., Yangon 2017, Search and Discovery Art. 30552, p. 1-43.
(online at: http://www.searchanddiscovery.com/documents/2018/30552thompson/ndx_thompson.pdf)
(Series of 11 previously published seismic profiles across Sunda subduction thrench- accretionary prism- forearc from North Sumatra- Andaman Islands- Myanmar. Plate margin changes from subduction margin in S to transform margin in N. May have been wholly subduction margin until ~25Ma)

Wang, H, F. Lv, G. Fan, C. Mao & H. Ma (2011)- Geological conditions and accumulation mechanism of shallow biogenic gas reservoirs in Andaman Basin. AAPG Ann. Conv. Exh., Houston 2011, Search and Discovery Art., 16p. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2011/10343wang/ndx_wang.pdf)
(Many shallow biogenic gas reservoirs in Miocene-Pleistocene strata in Andaman offshore area. Large biogenic gas field Zawtika 1A in Block M09 discovered in 2007, with >2 TCF proven gas reserves. Reservoirs Miocene-Pliocene delta front sandstonesat 750-1580m depth, and shallower biogenic gas reservoirs in Pleistocene with burial depths <500m)

Zhang, P., L. Mei, P. Xiong, X. Hu, R. Li & H. Qiu (2017)- Structural features and proto-type basin reconstructions of the Bay of Bengal basin: a remnant ocean basin model. J. Earth Science 28, 4, p. 666-682.
(online at: http://en.earth-science.net/PDF/20170721112257.pdf)
(Bay of Bengal Basin remnant ocean basin between E continental margin of India to W and Sunda trench-arc system to E. Prominent down flexure structures caused by huge amount of Bengal fan turbidite sediments accumulation. Transition from ocean basin to remnant ocean basin in Late Oligocene)

IX.2. Malay Peninsula, Singapore (93)

Alkhali, H.A. & C.W. Sum (2015)- The Kati Formation: a review. In: M. Awang et al. (eds.) 3rd Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2014), Kuala Lumpur 2014, Springer Verlag, p. 303-312.
(Review of stratigraphic nomenclature of intensely folded Permo-Carboniferous deep marine shales and sandstones of Kati Fm of W Malay Peninsula. Estimated thickness 800-900m. More intensely folded and probably older than Triassic Semanggol Fm; interpreted as equivalent of Kubang Pasu Fm in NW and Kenny Hill Fm of KL area. Flute casts suggest source from N-NW)

Almashoor, S.S. (1996)-The Benta migmatite complex revisited. Warta Geologi 22, 3, p. 227. *(Abstract)*
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1996003.pdf)
(Abstract only. Re-interpretation of Hutchison 1971; see also Umor & Almashoor 2000)

Arbain, N.A., Q.L. Xiang & A.A Ghani (2017)- Geochemistry of Ordovician to Silurian felsic volcanic from Gerik, Peninsular Malaysia. Proc. 30th Nat. Geosc. Conf. Exhib. (NGC 2017), Kuala Lumpur, PDRG13-77, Warta Geologi 43, 3, p. 309. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_032.pdf)
(Record of Late Ordovician- E Silurian (~488-450 Ma) rhyolitic volcanics in W Belt of Malay Peninsula (Sibumasu Terrane). Geochemistry of S-type arc volcanics)

Aung, A.K., K. Simon & Ng T. Fatt (2011)- Permian foraminiferal assemblages from the limestone unit of the Gua Musang Formation in the Padang Tengku area, Pahang, Malaysia. Proc. 24th Ann. National Geoscience Conference 2011 (NGC2011), Johor Baru, P2-19, p. 142. *(Abstract)*
(online at: http://geology.um.edu.my/gsmpublic/NGC2011/NGC2011_Proceedings.pdf)
(Permian Gua Musang Fm limestone in Selbourne Estate, 4 km NW of Padang Tengku, Pahang, C Malay Peninsula, with 18 smaller foram genera: Tetrataxis, Reichelina, Climacammina, Geinitzina, Dagmarita, Pachyphloia, Globivalvulina, Paleotextularia, Ozawainella, Pseudokahlerina, Colaniella, Langella, etc. Fusulinids absent. Similar assemblages in M-U Permian of E Malay Peninsula, Phra Nang Bay of Peninsular Thailand, Plateau Limestone of E Myanmar, etc. Assemblages assigned to late M- early Late Permian)

Azman, A.G. (2000)- The Western Belt granite of Peninsular Malaysia: some emergent problems on granite classification and its implication. Geosciences J. 4, 4, p. 283-293.
(Western Belt granites of Malay Peninsula considered as exclusively 'S' type granites, but consists of mixed 'I' and 'S' type features. This implies W Belt granites not solely derived from metasediments, but mixed origin of crustal material such as metapelites, greywackes and meta-igneous rocks)

Baioumy, H. & Y. Ulfa (2016)- Facies analysis of the Semanggol Formation, South Kedah, Malaysia: a possible Permian-Triassic boundary section. Arabian J. Geosciences 9, 8, 530, p. 1-16.
(NW Malay Peninsula outcrop sections of deep-marine Late Permian- Triassic Semanggol Fm. Common volcanogenic material in Late Permian, probably from E China)

Baioumy, H., Y. Ulfa, M. Nawawi, E. Padmanabhan & M.N.A. Anuar (2016)- Mineralogy and geochemistry of Palaeozoic black shales from Peninsular Malaysia: implications for their origin and maturation. Int. J. Coal Geology 165, p. 90-105.
(19 Cambrian- Permian black shale-bearing formations form 25% of sediment cover in Malay Peninsula. Compositions indicate changes in degree of weathering of sediment-source of shales and relatively wet climate in Cambrian, dry in Ordovician, wet from Silurian- Carboniferous, dry in Carboniferous-Permian and relatively wet in Permian. Black shales deposited under reducing conditions. Possible Devonian anoxia. Majority of Paleozoic black shales in Peninsular Malaysia anchimetamorphic and overmature)

Basori, M.B.I. (2014)- Geology and genesis of volcanic-hosted massive sulfide deposits in the Tasik Chini District, Central Peninsular Malaysia. Ph.D. Thesis, University of Tasmania, p. 1-365.
(online at: http://eprints.utas.edu.au/22747/)

(Two polymetallic volcanic-hosted massive sulphide deposits in Tasik Chini district ~250km E of Kuala Lumpur in Pahang, in felsic volcano-sedimentary sequence of E Permian island arc of East Malaya Block. E Permian U-Pb zircon ages of from Bukit Botol (~273, 286, 292 Ma) and Bukit Ketaya (286, 288 Ma) deposits. Also widespread Triassic volcanic- plutonic rocks (Eastern Granite Belt), with zircon ages ~233-242 Ma (Ladinian-Carnian). Massive sulphide deposits are 'kuroko-type' volcanic-hosted seafloor deposits)

Basori, M.B.I., M.S. Leman & K. Zaw (2018)- Implications of U-Pb detrital zircon geochronology analysis for the depositional age, provenance, and tectonic setting of continental Mesozoic formations in the East Malaya Terrane, Peninsular Malaysia. Geological J., p. *(in press)*
(U-Pb geochronology of detrital zircons in continental Late Jurassic or older formations of Peninsular Malaysia (E Malaya Terrane). Bertangga Fm zircon populations Jurassic (139-194 Ma), Permo-Triassic (226-274 Ma), Ordovician-Devonian (372-459 Ma), Neoproterozoic (631-876 Ma), and Mesoproterozoic-Palaeoproterozoic (1.5- 2.6 Ga). Gerek Fm significant Carboniferous grains. Detrital zircons correlate well with regional tectonic uplift and erosion to tectonic stability of East Malaya Terrane basin in Mesozoic)

Basori, M.B.I., K. Zaw, R.R. Large & W.F.W Hassan (2017)- Sulfur isotope characteristics of the Permian VHMS deposits in Tasik Chini district, Central Belt of Peninsular Malaysia. Turkish J. Earth Sciences 26, 1, p. 91-103.
(Sulfur isotope data from E Permian volcanic-hosted massive sulfide deposits of Tasik Chini district in Central Belt of Malay Peninsula suggest source of ore fluids is seawater-dominated with minor magmatic input)

Basori, M.B.I., K. Zaw, S. Meffre & R.R. Large (2016)- Geochemistry, geochronology, and tectonic setting of early Permian (~290 Ma) volcanic-hosted massive sulphide deposits of the Tasik Chini district, Peninsular Malaysia. Int. Geology Review 58, p. 929-948.
(Tasik Chini district in C Belt of Malay Peninsula hosts Bukit Botol and Bukit Ketaya VHMS deposits. Hosted by Permian felsic volcanics. Four mineralization zones: (1) stringer sulphide; (2) massive sulphide; (3) barite; and (4) Fe-Mn and Fe-Si zones. U-Pb zircon dating of rhyolites E Permian ages (~286-292 Ma). Differences between E Permian host and later Triassic igneous rocks due to tectonic progression from volcanic arc to collisional setting)

Basori, M.B.I., K. Zaw, S. Meffre, R.R. Large& W.F.W. Hassan (2016)- Pb-isotope compositions of the Tasik Chini volcanic-hosted massive sulfide deposit, Central Belt of Peninsular Malaysia: implication for source region and tectonic setting. Island Arc 26, 2, e12177, 8p.
(Lead isotopes of sulfides and host volcanic rocks of Permian Tasik Chini volcanic-hosted massive sulfide deposit. Range of lead isotopic compositions reflect mixing of bulk crust/juvenile arc and minor mantle sources, are typical for VHMS deposits in island arc- back arc setting)

Batchelor, D.A.F. (2015)- Clarification of stratigraphic correlation and dating of Late Cainozoic alluvial units in Peninsular Malaysia. Bull. Geol. Soc. Malaysia 61, p. 75-84.
(online at: www.gsm.org.my/products/702001-101674-PDF.pdf)
(Review of Late Pliocene- Quaternary alluvial deposits that overlie M Pliocene 'Sundaland Regiolith' red-yellow lateritic soil development in Malay Peninsula. Old Alluvium/ Simpang Fm older than 775 ka, supported by presence of tektites (~785ka) within tin-bearing beds of Gambang tinfield in Pahang)

Chakraborty, K.R. (1994)- How wide and oceanic was Palaeotethys?: evidence from Peninsular Malaysia. Warta Geologi (Newsl. Geol. Soc. Malaysia) 20, 3, p. 224-225. *(Abstract)*
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1994003.pdf)
(E and W blocks of Peninsular Malaysia were not separated by vast oceanic Palaeotethys. If vestiges of oceanic crust can be seen in serpentinites of Bentong-Raub suture zone, then linearity and persistent narrowness (< 15km in most places) of zone point to no more than very narrow seaway)

Chakraborty, K.R. & I. Metcalfe (1988)- Deformation and age of limestone at Sungai Bilut near Raub, Pahang. Warta Geologi 14, 3, p. 115-123.

(Polyphase deformation of thin-bedded Devonian or basal Carboniferous limestone-shale in Raub Gp, S of Raub. Conodont Color Alteration Index 5 (= 300-480°; low metamorphic))

Chakraborty, K.R. & I. Metcalfe (1995)- Structural evidence for a probable Paleozoic unconformity at Kg. Kuala Abang, Trengganu. Warta Geologi 21, 3, p. 141-146.

Darbyshire, D.P.F. (1988)- Geochronology of Malaysian granites. Natural Environment Research Council (NERC), Isotope Geology Centre, Open File Report 88/3, p. 1-59.

Drahman, F.A. & J.A. Gamez Vintaned (2017)- Stratigraphy and palaeoichnology of ñBlack Shaleò facies: chert unit of the Semanggol Formation, Perak. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 605-613.
(Black shales of chert unit of Semanggol Formation.exposed at Bukit Putus in abandoned quarry in Bukit Merah (NNW of Taiping, Perak). Chert unit repotedly deposited in deep oceanic basin. Black shale possibly shallower facies, with several levels with abundant Claraia (E Triassic pectinid bivalve))

Endut, Z., R. Hasnur, S. Mohamed, S. Ismail and A. Prihananto (2014)- Geology of the Penjom gold deposit, Kuala Lipis, Pahang, Malaysia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 301-308.
(Penjom gold deposit at W side of C Belt of Malay Peninsula is largest gold mine in Malaysia. Host rock Late Permian turbiditic sequence. Intruded by felsic tonalitic intrusives. Both host rocks and tonalite intrusives folded during main Late Triassic orogeny along Bentong-Raub Suture. Mineralization at Penjom and other vein-hosted deposits such as at Bukit Koman, Raub along Bentong-Raub Suture in Late Triassic- E Jurassic)

Endut, Z., T.F. Ng, J.H. Abdul Aziz, S. Meffre & C. Makoundi (2015)- Characterization of galena and vein paragenesis in the Penjom gold mine, Malaysia: trace elements, lead isotope study and relationship to gold mineralization episodes. Acta Geologica Sinica (English Ed.) 89, 6, p. 1914-1925.
(Penjom Gold Mine 30 km E of Bentong-Raub Suture, near W boundary of C Belt in Peninsular Malaysia. Gold mineralization in vein system with pyrite, arsenopyrite, and minor base metals including galena. Galena crystallized from two different ore fluids, probably at different times. Pb isotopic ratios suggest derivation from arc rocks associated with continental crust)

Foo, B.N. (1979)- A comparative study of paragenesis, geochemistry and fluid inclusions of selected primary tin deposits of West Malaysia. Ph.D. Thesis Imperial College, University of London, p. 1-534.
(online at: https://spiral.imperial.ac.uk/handle/10044/1/35018)
(Paragenetic tin mineralisation sequence and relation to host rocks and structures at two main hypogene tin deposits in Eastern Belt of SE Asian Tin Province in Malay Peninsula (Hantu and Gakak Mines at Sungei Lembing, Pahang, and Waterfall Mine at Pelapah Kanan, Johore. Mineralization preferentially in brittle calcareous Carboniferous-Permian metasediments)

François, T., M.A.M Ali, L. Matenco, E. Willingshofer, T.F. Ng, N.I. Taib & M.K. Shuib (2017)- Late Cretaceous extension and exhumation of the Stong and Taku magmatic and metamorphic complexes, NE Peninsular Malaysia. J. Asian Earth Sci. 143, p. 296-314.
(Stong and Taku magmatic and metamorphic complexes of N Peninsular Malaysia part of Late Paleozoic-Triassic Indosinian orogeny, dismembered during Cretaceous thermal event that formed large Late Santonian - E Maastrichtian extensional detachment, associated with crustal melting, emplacement of syn-kinematic plutons and widespread migmatisation. Formation of detachment and first phase of Late Cretaceous cooling followed by renewed Eocene - Oligocene exhumation (see also Ali et al. 2016))

Gebretsadik, H.T., C.W. Sum& A.W. Hunter (2015)- Preservation of marine chemical signatures in Upper Devonian Carbonates of Kinta Valley, Peninsular Malaysia: implications for chemostratigraphy. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering Geosciences (ICIPEG), Kuala Lumpur 2014, Springer Verlag, p. 291-302.

(Kinta Limestone important Silurian-Permian unit in W Belt of Malay Peninsula. Diagenesis obscured many primary sedimentary and geochemical features. Nearly pure limestones have rel. low Mn/Sr values (1.83-3.14), suggesting minor postdepositional alteration and likely preservation of original marine compositions)

Ghani, A.A. (2009)- Volcanism. In: C.S Hutchison & D.N.K. Tan (eds.) Geology of Peninsular Malaysia, University of Malaya/ Geol. Soc. Malaysia, Kuala Lumpur, p. 197-210.

Gupta, A., A. Rahman, P.P. Wong & J. Pitts (1987)- The old alluvium of Singapore and the extinct drainage system to the South China Sea. 12, 3. p. 259-275.
(Old Alluvium of Singapore mainly matrix-supported pebbly sand and appears to be proximal braided river alluvium of possible Pleistocene age. Mixed provenance of granitic and low-grade metamorphic origin. Believed to be deposited during low sea levels, in environment of high relief, seasonal rainfall and active erosion. Such conditions may have prevailed over much of SE Asia at time of deposition of Old Alluvium)

Haile, N.S. (1971)- Quaternary shorelines in West Malaysia and adjacent parts of the Sunda Shelf. Quaternaria 15, p. 333-343.
(Review of former relative sea levels in Malay Peninsula and adjacent marine areas. Well established Holocene level of ~ +6 m. Levels down to -100m shown by depths of fluvial alluvium and erosional submarine morphology. No convincing evidence for former levels higher than + 6 m)

Halim, R.A.A., N.A.N. Tan, H. Zainal & Meor H.A. Hassan (2017)- Carboniferous plant fossils from the Kubang Pasu Formation, Pokok Sena, Kedah. Proc. 30th Nat. Geosc. Conf. Exhib. (NGC 2017), Kuala Lumpur, PDRG08-59, Warta Geologi 43, 3, p. 305. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_032.pdf)
(Kubang Pasu Fm near Pokok Sena, Kedah, thick interbedded marine shale-sandstone. Shale intervals with trilobite Chlupacula (previously known as Macrobole kedahensis), bivalve Posidonia/Posidonomya becheri, etc., indicating E Carboniferous age. Locally abundant plant fossils, incl. leaves identified as Sphenophyllum cf. miravallis. Possibly oldest plant fossils from W Belt of Malay Peninsula)

Harun, Z. & B. Jasin (1999)- Implications of the Bok Bak Fault movements on the structure and lithostratigraphy of the Pokok Sena area. In: G.H. Teh (ed.) Proc. 9th Reg. Congress Geology, Mineral and Energy Resources of SE Asia (GEOSEA ꞌ98), Kuala Lumpur 1998, Bull. Geol. Soc. Malaysia 43, p. 145-153.
(online at: www.gsm.org.my/products/702001-100826-PDF.pdf)
(Strike-slip fault in area of Paleozoic sediments in NW Malay Peninsula)

Hassan, W.F.W. & H.S. Purwanto (2002)- Type deposits of primary gold mineralization in the Central Belt of Peninsular Malaysia. In: G.H. Teh (ed.) GSM Annual Geological Conference, Kuala Lumpur 2002, Bull. Geol. Soc. Malaysia 45, p. 111-116.
(online at: https://gsmpubl.files.wordpress.com/2014/09/bgsm2002016.pdf)
(Three types of gold mineralizations in Central Belt: in quartz veins (dominant), in massive sulphides(kuroko-type marine deposit) and in skarn. Gold-bearing quartz veins in steeply dipping N-S fault and shear zones)

Henney, P.J., M.T. Styles, P.D. Wetton & D.J. Bland (1995)- Characterization of gold from the Penjom area, near Kuala Lipis, Pahang, Malaysia. British Geol. Survey, Overseas Geol. Series, Techn. Report WC/95/21, p. 1-67.
(online at: www.bgs.ac.uk/research/international/dfid-kar/WC95021_col.pdf)
(Penjom area near Kuala Lipis with gold in quartz veins in shales and phyllites of Permian Padang Tenku Fm. In tract of Paleozoic continental margin sediments, between the W and E ranges of Triassic granites. Main Au-Ag vein sulpides with galena, chalcopyrite and sphalerite)

Hosking, K.F.G. & P.R. Stauffer (1970)- Tektites from the stanniferous placers of eastern Pahang. Newsletter Geol. Soc. Malaysia 22, p. 1-4.
(online at: www.gsm.org.my/products/702001-101619-PDF.pdf)

(Two black glass tektites from Quaternary tin placers at Sungei Reman and Gambang, E Pahang, Malay Peninsula. First finds since Scrivenor 1931. Tektites possibly near base of tin deposits)

Huang, K.L., H. Baioumy, J.M. Lim, L.Y.S. Lim, S. Yong, T. Rajoo & D.M. Hareedranathan (2017)- Sedimentology of black shale in turbidite at Semanggol Formation. In: 79th EAGE Conf. Exhib., Paris 2017, p.
(Black shales in Triassic turbiditic Semanggol Fm deposited in outer fan environment. Organic matter terrigenous-derived)

Hutchison, C.S. (1971)- The Benta migmatite complex, petrology of two important localities. Geological Soc. Malaysia Bull. 4, p. 49-70.
(online at: www.gsm.org.my/products/702001-101363-PDF.pdf)
(Exposures of foliated gneiss, monzonite and migmatite near Benta quarry, Sungei Lipis, Pahang. Origin of Benta rocks considered to be deep seated, anatectic. No genetic relationship to Benom granite implied (see also Almashoor 1996)

Hutchison, C.S. (2009)- Tectonic evolution. In: C.S. Hutchison & D.N.K. Tan (eds.) Geology of Peninsular Malaysia, University Malaya and Geol. Soc. Malaysia, Kuala Lumpur, p. 309-330.

Hutchison, C.S. (2009)- Mineral deposits. In: C.S. Hutchison & D.N.K. Tan (eds.) Geology of Peninsular Malaysia, University Malaya and Geol. Soc. Malaysia, Kuala Lumpur, p. 331-364.
(Malaysia produced 70% of world's tin in world in last century, with 95% from E-M Pleistocene 'Old Alluvium' placer deposits in coastal regions (with 770ka Australasian tektites at base of tin-bearing beds of Gambang tinfield in Pahang). Eastern and Western tin granite belts. Permo-Triassic iron ores. Small gold mines immediately E of Raub-Bentong suture zone. Some Tungsten, bauxite)

Idris, M.B. & C.N. Hashim (1988)- An Upper Permian fossil assemblage from Gunung Sinyum and Gunung Jebak Puyoh Limestone, Pahang. Warta Geologi 14, 5, p. 199-203.
(online at: www.gsm.org.my/products/702001-101505-PDF.pdf)
(Two prominent limestone hills 50km N of Temerloh, Pahang, surrounded by younger sediments of Semantan Fm, with conodonts Neogondolella rosenkrantzi and N. serrata serrata, indicative of U Permian (Capitanian). Also forams Parafusulina, Schubertella, etc.)

Jasin, Basir (2015)- *Posidonomya* (Bivalvia) from Northwest Peninsular Malaysia and its significance. Sains Malaysiana 44, 2, p. 217-223.
(online at: www.ukm.my/jsm/pdf_files/SM-PDF-44-02-2015/08%20Basir%20Jasin.pdf)
(Thin-shelled pseudopelagic bivalve Posidonomya common in NW Malay Peninsula, in redbeds of Langkawi Island (Singa Fm) and Perlis and Kedah (Kubang Pasu Fm; above Tournaisian radiolarian cherts). Two taxa: Posidonomya becheri and P. cf. kochi (von Koenen). Occurrence of Posidonomya indicates E Carboniferous age of lower Kubang Pasu/ Singa Fms. Part of widespread tropical-subtropical Paleo-Tethys domain)

Jusop, S. (2017)- Pyritization of coastal sediments in the Kelantan Plains as evidence for the sea level rise in the Malay Peninsula during the Holocene. Bull. Geol. Soc. Malaysia 64 (Geol. Soc. Malaysia 50th Anniversary Issue 2), p. 59-63.
(online at: www.gsm.org.my/products/702001-101718-PDF.pdf)
(Widespread pyritization (2-3%) of low-lying plains in Malay Peninsula linked to inundation by seawater due to sea level rise of 3-5m, ~43,000 years ago))

Kadir, A.A., B.J. Pierson, Z.Z.T. Harith & Chow W.S. (2009)- Kinta Valley Limestone: clues for a new play? AAPG Convention, Denver, Search and Discovery Article 1019826, p. *(Abstract and Presentation)*
(online at: www.searchanddiscovery.com/documents/2009/10198kadir/ndx_kadir.pdf)
(Karst hills of Ordovician-Permian limestone in Kinta Valley, Malay Peninsula, remnants of large Paleozoic carbonate complex on Sibumasu terrane. Limestones interbedded with sandstone, siltstone and carbonaceous shale over thickness of up to 3000m (??). Slumps and breccia beds indicate slope deposition, slumping to West and N-S platform margin orientation. Potential unexplored new carbonate play E of Malay Peninsula)

Khan, A.A. & M.K. Shuib (2016)- A review of the Bentong-Raub suture vis-a-vis new insight of the tectonic evolution of Malay Peninsula, South East Asia. Acta Geologica Sinica (English Ed.) 90, 5, p. 1865-1886.
(Raub-Bentong suture does not fit model of subduction-related collision, but evolved from transpression tectonics after closure and exhumation of inland basin that underwent back-arc extension during Triassic)

Kobayashi, T. & T. Hamada (1981)- Trilobites of Thailand and Malaysia. Proc. Japan Academy, Ser. B, 57, 1, p. 1-6.
(online at: www.jstage.jst.go.jp/article/pjab1977/57/1/57_1_1/_pdf)
(Brief review of 11 occurrences of Late Cambrian- Permian trilobites from Thailand and Malaysia (mainly from Sibumasu terrane?))

Kon'no, E. & K. Asama (1975)- Younger Mesozoic plants from Ulu Endau, Pahang, West Malaysia. In: T. Kobayashi & R. Toriyama (eds.) Geology and palaeontology of Southeast Asia, University of Tokyo Press, 16, p. 91-102.

Leman, M.S., N. Ramli, S. Mohamed & C. Molujin (2004) The discovery of Late Permian (early Changshingian) brachiopods from Penjom, Pahang Darul Makmur. Geol. Soc. Malaysia Bull. 48, p. 91-95.
(online at: www.gsm.org.my/products/702001-100582-PDF.pdf)
(Late Permian brachiopod fauna with Peitichia kwangtungensis and Semibrachythyrina rhombiformis in dark grey calcareous shale dipping ~45° to WSW, nearPenjom gold mine, SW of Kuala Lipis)

Lim, K.K. & N.T. Abdullah (1994)-. Development of Permian volcaniclastics limestone succession at Gua Bama, Pahang Darul Makmur. Warta Geologi 20, 3, p. 243-244. *(Abstract only)*
(online at: https://gsmpubl.files.wordpress.com/2014/09/ngsm1994003.pdf)
(Late Permian volcanic and volcaniclastic facies interfingering with minor limestone reported to be ubiquitous from Padang Tengku to Terengan catchment area. Limestone sequence at Gua Bama underlain by stratified volcaniclastics (crystal tuffs). With Tubiphytes and colaniellid foraminifera, indicating Late Permian age)

Lim Teng Chye, S., M. Sharafuddin, M. Sulaiman, G.H. Teh & J.H.A. Aziz (2001)- Geology, structure, mineralization and geochemistry of the Penjom gold deposit, Penjom, Pahang. Proc. Geol. Soc. Malaysia Annual Geological Conf., Pangkor Island, p. 59-63.
(online at: https://gsmpubl.files.wordpress.com/2014/10/agc2001_10.pdf)
(Penjom Gold Mine near Bentong-Raub suture in Permian tuffs and sediments of Padang Tengku Fm, striking E-W with 30° dip S, close to E boundary with Triassic. Gold mineralization associated with early felsite sills)

Long, X.Q., A.A. Ghani, M. Saidin & Z.Z.T. Harith (2016)- Durbachite-like melagranite in Taiping Pluton of Bintang Batholith, Peninsular Malaysia. Bull. Geol. Soc. Malaysia 62, p. 1-6.
(online at: https://gsmpubl.files.wordpress.com/2017/04/bgsm2016001.pdf)
(Triassic (218 ± 1.3 Ma) ultrapotassic durbachite-type rocks (K-Mg rich melagranite)in Taiping Pluton, Bintang Batholith, NW Malay Peninsula. Petrogenesis believed to require crustal component and enriched lithospheric mantle source. Taiping Pluton on Sibumasu plate, emplaced during Sibumasu-Indochina collision)

Lye, Y.H. (1984)- Studies of pegmatitic cassiterites from the Gunung Jerai (Kedah), Bakri (Johore) and Kathu Valley (Phuket) regions. Geol. Soc. Malaysia Bull. 17, p. 107-161.
(online at: www.gsm.org.my/products/702001-101157-PDF.pdf)

Madon, M. (2017)- A brief review of gravity and magnetic data for Malaysia. Warta Geologi 43, 2, p. 41-49.
(online at: https://gsmpubl.files.wordpress.com/2017/09/ngsm2017_02.pdf)
(Brief review of main sources of public domain gravity- magnetic data for Malaysia and surrounding region)

Mahmoodi, I. & E. Padmanabhan (2017)- Exploring the relationship between hydrocarbons with total carbon and organic carbon in black shale from Perak, Malaysia. Petroleum and Coal 59, 6, p. 933-943.
(online at: https://www.vurup.sk/wp-content/uploads/2017/12/PC_6_2017_Mahmoodi_82cor1.pdf)

(Organic geochemistry of Paleozoic black shale from U Carboniferous Batu Gajah Fm, Ipoh, Malay Peninsula)

Makoundi, C. (2016)- Geochemistry of Phanerozoic carbonaceous black shales, sandstones and cherts in Malaysia: insights into gold source rock potential. Ph.D. Thesis, University of Tasmania, p. 1-318.
(online at: https://eprints.utas.edu.au/23088/1/Makoundi_whole_thesis.pdf)
(Trace element geochemistry of Paleozoic- M Triassic marine black shales from central gold belt/E Malaya and Sibumasu terranes as possible sources of orogenic gold deposits)

Meng, C.C., M. Pubellier, A. Abdeldayem & Chow W.S. (2016)- Deformation styles and structural history of the Paleozoic limestone, Kinta Valley, Perak, Malaysia. Bull. Geol. Soc. Malaysia 62, p. 37-45.
(online at: www.gsm.org.my/products/702001-101695-PDF.pdf)
(Paleozoic limestone of Kinta Valley narrow deformed strip between Late Triassic- E Jurassic batholiths of N Malay Peninsula. Deformation events: (1) early extension (Permian-Triassic intra-basin extension); (2) early compression indicated by conjugate strike-slip faults; (3) compression with thrusts and folds (coeval with late stages of granite emplacement); (4) ductile high temperature normal shear near contact with granites, and (5) late extension with large normal faults (Tertiary basins formation or Late Miocene-Quaternary uplift))

Meor, H.A.Hassan, Y.A. Mustafa, M.Z.Z. Zakaria & A.A. Ghani (2015)- First record of *Homoctenus* (Tentaculitoidea, Homoctenida) from the Late Devonian of northwest Peninsular Malaysia. Alcheringa 39, 4, p. 550-558.
(online at: http://repository.um.edu.my/101072/1/Meoretal15.pdf)
(First record of pelagic homoctenid tentaculitoid genus Homoctenus from Malay Peninsula, in U Devonian Sanai Lst in Perlis. Closely related to Homoctenus tenuicinctus. Associated with rich Frasnian conodont assemblage, (Late Devonian; Palmatolepis linguiformis Zone)

Meor, H.A.Hassan, N.N.S.A. Zamruddin, B.S. Yeow & A.S.S.A. Zamad (2017)- Sedimentology of the Permian *Monodiexodina*-bearing bed of the uppermost Kubang Pasu Formation, northwest Peninsular Malaysia: Interpretation as storm-generated, transgressive lag deposits. Bull. Geol. Soc. Malaysia 64 (Geol. Soc. Malaysia 50th Anniversary Issue 2), p. 51-58.
(online at: www.gsm.org.my/products/702001-101719-PDF.pdf)
(Late E Permian fusulinid Monodiexodina commonly as dense accumulations associated with marine siliciclastics. Monodiexodina-bearing bed of top Kubang Pasu Fm of Perlis (NW Malay Peninsula, Sibumasu terrane) 0.5-1.5m thick, above ~15m coastal marine coarsening upward succession. Composed of Monodiexodina tests, bryozoa (Rhombopora sp.), brachiopods, crinoid ossicles and 6-27% f quartz. Bed with giant symmetrical ripples and smaller ripples, interpreted as transgressive deposit overlying flooding surface, with mainly wave- and storm-generated facies formed by wave ravinement)

Metcalfe, I. (1983)- Observations on the ornamentation and ultra-structure of some well preserved, specimens of *Idiognathoides noduliferus inaequalis* Higgins (Pennsylvanian conodont). Bull. Geol. Soc. Malaysia 16, p. 31-36.
(online at: www.gsm.org.my/products/702001-101178-PDF.pdf)
(Pennsylvanian conodont from Panching Limestone of Pahang, Malay Peninsula)

Metcalfe, I. (1995)- Mixed Permo-Triassic boundary conodont assemblages from Gua Sei and Kampong Gua, Pahang, Peninsular Malaysia. In: Contr. First Australian Conodont Symposium (AUSCOS 1), Sydney 1995, Courier Forschunginstitut Senckenberg, Frankfurt, 182, p. 487-495.
(Merapoh Lst at Kampong Gua and Gua Sei, Pahang, C Peninsular Malaysia, previously assigned to Carboniferous, with E Triassic (Griesbachian) conodont assemblages (Clarkina changxingensis, Hindeodus spp., incl. H. latidentatus))

Metcalfe, I. (2017)- Devonian and Carboniferous stratigraphy and conodont biostratigraphy of the Malay Peninsula in a regional tectonic context. Stratigraphy 14, p. 259-283.
(Devonian- Carboniferous stratigraphy of Malay Peninsula tied to Sibumasu Terrane in W and Sukhothai Arc (Indochina) block in E . Bentong-Raub Suture is former Devonian-Triassic Paleo-Tethys Ocean. Devonian-

Carboniferous sediments/ faunas of W belt support placement of Sibumasu Terrane on Paleozoic margin of Australian Gondwana until E Permian (Sakmarian). Carboniferous sediments of E Belt deposited on margin of equatorial Indochina Block, on which Sukhothai Arc was constructed)

Mohamed, K.R., N.A.M. Joeharry, M.S. Leman & C.A. Ali (2016)- The Gua Musang Group: a newly proposed stratigraphic unit for the Permo-Triassic sequence of Northern Central Belt, Peninsular Malaysia. Bull. Geol. Soc. Malaysia 62, p. 131-142.
(online at: https://gsmpubl.files.wordpress.com/2017/04/bgsm2016012.pdf)
(Permian- Triassic Gua Musang Fm, Telong Fm, Aring Fm and Nilam Marble reflect lateral facies changes within newly defined Gua Musang Gp of argillites-carbonates-volcanics in Central Belt of Malay Peninsula)

Newell, R.A. (1971)- Characteristics of the stanniferous alluvium in the southern Kinta valley, West Malaysia. Bull. Geol. Soc. Malaysia 4, p. 15-37.
(online at: www.gsm.org.my/products/702001-101365-PDF.pdf)
(Kinta Valley near Kampar, Perak, flanked by granite ranges (Main Range to East) and Late Paleozoic sediments. Up to >100' fluvial/alluvial deposits, with basal granite wash which is main placer ore zone of tin mines in valley. Heavy mineral content average 0.59% (0.05- 3.2%), generally highest in coarsest sands)

Niko, S., M. Sone & M.S. Leman (2017)- Late Silurian cephalopods from Langkawi, Malaysia, with peri-Gondwanan faunal affinity. J. Systematic Palaeontology, p. 1-16. *(in press)*
(online at: https://umexpert.um.edu.my/file/publication/00011532_136895.pdf)
(Nine species of latest Silurian orthocerid cephalopods from U Setul Lst of Langgun, Langkawi Islands, incl. orthoceratids (Michelinoceras cf. michelini, Kopaninoceras setulense n.sp., Mimogeisonoceras? langgunense n.sp., Kionoceras?, Orthocycloceras), arionoceratids (Arionoceras mahsuri n.sp., Caliceras mempelamense n.sp.) and geisonoceratid Murchisoniceras? sp.. Assemblage belongs to newly defined Kopaninoceras Fauna, widely distributed along N margin of Gondwana and around Prototethys Ocean)

Ooi, P.C., S.N.F. Jamaludin & A.H.A. Latif (2017)- Fracture network analysis of metasedimentary rock in East Coast Terengganu- an analogue to fractured Basement in Malay Basin. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 453-467.
(Outcrop study of Carboniferous metasediments at Kuala Abang, E coast of Terengganu, as analogue for fractured basement in Malay Basin (Puteri Field))

Otofuji, Y., Y.T. Moriyama, M.P. Arita, M. Miyazaki, K. Tsumura, Y. Yoshimura, M.K. Shuib, M. Sone, M. Miki, K. Uno, Y. Wada & H. Zaman (2017)- Tectonic evolution of the Malay Peninsula inferred from Jurassic to Cretaceous paleomagnetic results. J. Asian Earth Sci. 134, p. 130-149.
(Magnetization in Jurassic-Cretaceous red bed sandstones of Tembeling Gp indicates two-stages of tectonic movement in S Malay Peninsula: (1) CW rotation of 61° ± 12° accompanied by 13° ± 8° S-ward displacement after Cretaceous (caused by indentation of India into Asia after 55 Ma); and (2) subsequent CCW rotation of 18° ± 5° to present position (collision of Australian Plate with SE Asia after 30-20 Ma))

Parham, P.R. (2016)- Late Cenozoic relative sea-level highs and record from Peninsular Malaysia and Malaysian Borneo: implications for vertical crustal movements. Bull. Geol. Soc. Malaysia 62, p. 91-115.
(online at: https://gsmpubl.files.wordpress.com/2017/04/bgsm2016012.pdf)
(Peninsular Malaysia no evidence to indicate Relative Sea Level ever higher than M Holocene maximum (~+5m at ~7 ka). RSL record of Malaysian Borneo more complex, even W Sarawak on Sundaland. Possible strandplain deposits over coarse alluvium in Kuching area could reflect last interglacial highstand deposition but more likely result of uplift. Ongoing subsidence of coastal plain from Kuching to Bintulu mainly due to sediment loading. N of Lupar Line, coast and interior from Bintulu to Bongawan, Sabah, has undergone Quaternary uplift. Geomorphic indicators and lack of emergent RSL indicators along W Sabah coast, N of Bongawan, suggest ongoing subsidence. RSL record from E Sabah very complex)

Parham, P.R., Y. Saito, N. Sapon, R. Suriadi & N.A. Mochtar (2014)- Evidence for ca. 7 ka maximum Holocene transgression on the Peninsular Malaysia east coast. J. Quaternary Science 29, 5, p. 414-422.
(Coral and shelly marine deposits up to 50cm above mean sea level in NE Peninsular Malaysia, with radiocarbon ages 7238-6909 yrs BP. Maximum transgression at ~7 ka, relative sea 1.4- 3m above present)

Pierson, J.B., S. Kassa, H. Tsegab, A.A. Kadir, Chow W.S., A. W. Hunter & Z.T. Harith (2011)- Sedimentology of the Paleozoic limestone of the Kinta Valley, Peninsular Malaysia. In: First EAGE South-East Asia Regional Geology Workshop, Ipoh 2011, 5p. *(Extended Abstract)*
(Limestone hills of Kinta Valley remnants of extensive Paleozoic carbonate complex. Altered by contact metamorphism of Triassic granite intrusion, but in N part of valley rel. unaltered. Mainly thin-beeded micritic limestone. Slump folds and breccias suggestive of marine slope deposition. Direction of slumping mainly toW, implying platform margin and lagoon facies should be E of Kinta Valley)

Pour, A.B., M. Hashim, C. Makoundi & K. Zaw (2016)- Structural mapping of the Bentong-Raub suture zone Using PALSAR remote sensing data, Peninsular Malaysia: implications for sediment-hosted/orogenic gold mineral systems exploration. Resource Geology 66, 4, p. 368-385.
(Bentong-Raub Suture between Gondwana-derived Sibumasu terrane and Sukhothai Arc genetically related to the sediment-hosted/orogenic gold deposits associated with major lineaments in Central Gold Belt of Peninsular Malaysia)

Quek, L.X., A.A. Ghani, S.L. Chung, S. Li, Y.M. Lai, M. Saidin, M.H.A. Hassan et al. (2017)- Mafic microgranular enclaves (MMEs) in amphibole-bearing granites of the Bintang batholith, Main Range granite province: evidence for a meta-igneous basement in Western Peninsular Malaysia. J. Asian Earth Sci. 143, p. 11-29.
(Mafic microgranular enclaves in Late Triassic amphibole-bearing I-type Bintang granite of Main Range granite province. MMEs slightly older zircon age (224 ± 1 Ma) than granite host (216 ± 1Ma). Oldest inherited zircons 2.0 and 1.3 Ga, oldest xenocrystic zircons 2.5 and 1.5 Ga. Rocks generated from similar, ancient source in basement (E Proterozoic- Late Archean (~2.5 Ga) meta-igneous rock))

Raj, J.K., D.N.K. Tan & W.H. Abdullah (2009)- Cenozoic stratigraphy. In: C.S. Hutchison & D.N.K. Tan (eds.) Geology of Peninsular Malaysia, University Malaya and Geol. Soc. Malaysia, Kuala Lumpur, p. 133-173.
(Malay Peninsula almost entirely emergent during Cenozoic, with thin Cenozoic deposits mainly along W and E coasts. Isolated small Tertiary pull-apart basins. Batu Arang basin, Selangor, with 7-15m thick Eo-Oligocene thermally immature coal beds and lacustrine oil shale. E-M Pleistocene Simpang Fm (Old Alluvium) aggraded to 70m above s.l. Patches of up to 9m thick rhyolitic ash probably form Toba volcano, Sumatra)

Roselee, M.H., A.A. Ghani, S.L. Chung, M.R. Umor & L.X. Quek (2016)- óA-typeô signature of volcanics suite from Teluk Ramunia, Southeastern of Johor, Peninsular Malaysia: Geochemical evidence of Paleo-Tethys slab rollback extension. Proc. GEOSEA XIV and 45th Ann. Conv. Indon. Assoc. Geologists (IAGI) (GIC 2016), Bandung, p. 739-742.
(Triassic (Late Carnian; 229, 231 Ma) volcanics of SE tip ofMalay Peninsula)

Roselee, M.H., A.A. Ghani & M.R. Umor (2016)- Petrology and geochemistry of igneous rocks from southern Tioman Island, Pahang, Peninsular Malaysia. Bull. Geol. Soc. Malaysia 62, p. 79-89.
(online at: https://gsmpubl.files.wordpress.com/2017/04/bgsm2016011.pdf)
(Plutonic (hornblende diorite, biotite granite) and volcanic rocks (rhyolite-dacite; andesite on other part of island) in S part of Tioman Island, E of Pahang coast. Late Cretaceous granite (~80 Ma) intruded Tioman Volcanics (~88.9 Ma). Biotite granite formed in calc-alkaline volcanic arc setting (Neotethys subduction?))

Roslan, M.H.K., C.A. Ali & K. Roslan Mohamed (2016)- Fasies dan sekitaran sedimen Formasi Singa di Langkawi, Malaysia. Sains Malaysiana 45, 12, p. 1897-1904.
(online at: www.ukm.my/jsm/pdf_files/SM-PDF-45-12-2016/14%20Mohamad%20Hanif%20Kamal.pdf)

('Facies and sedimentary environment of the Singa Formation of Langkawi, Malaysia'. Depositional model of Carboniferous- E Permian shallow marine clastics of Singa Fm, widespread on Langkawi. With pebbly mudstone facies indicative of cold climate)

Samsudin, A.R., N S. Ahmad, N.D. Johari & U. Hamzah (2014)- Geophysical evidences of a possible meteorite impact crater at Langkawi Island, Kedah, Malaysia. Electronic J. Geotechn. Engin. (EJGE) 19, Bund. R, p. 4741-4749.
(Semi-circular rim structure on Langkawi island previously identified by Tjia (2001) as possible remnant of impact crater. Gravity and magnetic surveys over ~35 km2 area shows low gravity negative anomaly of ~1.5 km in diameter. Modelled as simple type crater with ~1500m of low density sedimentary fill)

Sautter, B. (2017)- Influence de lôheritage structural sur le rifting: exemple de la marge Ouest de La Sonde. Doct. Thesis Ecole Normal Superiere, Universite de Paris, p.
('Influence of pre-existing structural fabric on rifting: example from the western margin of Sunda Plate')

Sautter, B., M. Pubellier, P. Jousselin, P. Dattilo, Y. Kerdraon, C.M. Choong & D. Menier (2017)- Late Paleogene rifting along the Malay Peninsula thickened crust. Tectonophysics 710-711, p. 205-224.
(Continental core of Malay Peninsula relatively undeformed after Triassic Indosinian orogeny. Thick crustal mega-horst bounded by shear zones (Ranong, Klong Marui, Main Range Batholith Fault Zones), initiated in latest Cretaceous and reactivated in Late Paleogene. Extension localized on sides with Late Cretaceous deformation. In W continental shelf three major crustal steps (crustal-scale tilted blocks bounded by deep-rooted normal faults; Mergui Basin). To E rift systems with large tilted blocks (W Thai, Songkhla, Chumphon) which may reflect large crustal boudins. Central domain extension limited to narrow N-S half grabens. Rifted basins resemble N-S en-echelon structures along large NW-SE shear bands. Deep Andaman, Malay and Pattani basins on weaker crust inherited from Gondwanan continental blocks (Burma, Sibumasu, Indochina))

Savage, H.E.F. (1938)- The geology of the neighbourhood of Sungai Siput, Perak, Federated Malay States, with an account of the mineral deposits. Geol. Survey Dept. Fed. Malay States, new ser., Mem. 1, p. 1-46.
(online at: http://myrepositori.pnm.gov.my/bitstream/123456789/2825/1/MN1100008_FAMD.pdf)

Shi, G.R., M.S. Leman & B.K. Tan (1997)- Early Permian brachiopods from upper Singa Formation of Langkawi Island, northwestern Peninsular Malaysia: biostratigraphical and biogeographical implications. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 62-72.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(Two assemblages of E Permian (Sakmarian) brachiopods from pebbly mudstones and associated bryozoan limestones of U Singa Fm of Langkawi island, incl. Kasetia, Bandoproductus, Stenoscisma, Sulciplica, Spinomartinia prolifica, etc.. Comparable to peri-Gondwanan assemblages now in Cimmerian terranes (S Thailand, Lhasa, Baoshan, SE Pamir). Transitional between cool Gondwanan and warm Cathaysian faunas)

Sone, M. & M.S. Leman (2005)- Permian linoproductoid brachiopod *Permundaria* from Bera South, Peninsular Malaysia. J. Paleontology 79, 3, p. 601-606.
(Permundaria is uncommon genus confined to M- early Late Permian Tethys Sea. New species Permindaria perplexus in Wordian, Middle Permian Bera Fm, Pahang, Malay Peninsula (genus also recorded from Jambi, C Sumatra as Strophomena analoga; Meyer 1922))

Sone, M., I. Metcalfe & M.S. Leman (2008)- Search for the Permian-Triassic boundary in central Peninsular Malaysia: preliminary report. Permophiles 51, p. 32-34.
(online at: http://permian.stratigraphy.org/files/20121027153250868.pdf)
(Permian- Triassic transition in C Malay Peninsula present in basal parts of Gua Bama and Gua Sei limestones. Conodonts Isarcicella isarcica and Hindeodus parvus indicate basal Triassic age of limestone overlying Upper Permian Colaniella-bearing limestone and lyttonoid brachiopod (Leptodus) shales)

Sone, M., I. Metcalfe & M.S. Leman (2011)- Where is the Permian-Triassic boundary (PTB) in central Peninsular Malaysia? Proc. 24th Ann. National Geoscience Conference 2011 (NGC2011), Johor Baru, P2-25, p. 152. *(Abstract only)*
(online at: http://geology.um.edu.my/gsmpublic/NGC2011/NGC2011_Proceedings.pdf)
(Permian- Triassic boundary defined by first appearance of conodont species Hindeodus parvus, now indicated to be 252.3 Ma by zircon U-Pb dating. In Pahang, C Peninsular Malaysia, several limestone sections contain Permian- Triassic boundary, incl. Gua Bama and Gua Sei)

Stauffer, P.H. (1969)- Tin mineralisation and faults in the Kuala Lumpur region. Newsletter Geol. Soc. Malaysia 20, p. 5-7.
(Tin mineralisation in KL area may be related to fault zones, especially WNW trending faults, which may sinistrally offset primary tin lodes by ~70 km)

Stauffer, P.H. (1971)- Quaternary volcanic ash at Ampang, Kuala Lumpur; West Malaysia. Newsletter Geol. Soc. Malaysia 33, p. 5-8.
(White fine-grained and rhyolitic ash layer, 0.45m thick, in sequence of alluvium and peat exposed by tin mining. Correlated with ash previously reported from Perak and Pahang (= Young Toba Tuff?; JTvG))

Stauffer, P.H. (1984)- Distribution of tektite finds in Malaysia and immediately adjacent territories. Federation Museums Journal, Kuala Lumpur, 29, p.

Sulaiman, A.. K. Hassan & H.D.Tjia (2003)- The Holocene optimum in Malaysia. Minerals and Geoscience Department Malaysia, Technical Papers 2, p. 37-67.
(In Peninsular Malaysia Holocene climate optimum coincides with peak of Holocene transgression. Between ~6500- 4000 years BP sea levels of >2 m above present known from many localities in Peninsular Malaysia (~4m above sealevel at ~ 5 ka))

Tan, B.K. & S.P. Sivam (1971)- A fossil "Portuguese Man-of-War" (Velellidae) from the Paleozoic of the Raub area, Pahang, West Malaysia. Newsletter Geol. Soc. Malaysia 33, p. 8-12.
(Well preserved imprints of jellyfish occur in metasedimentary rocks of probable Carboniferous age along Cheroh River)

Teh, G.H. (1981)- The Tekka tin deposit, Perak, Peninsular Malaysia. Bull. Geol. Soc. Malaysia 14, p. 101-118.
(online at: www.gsm.org.my/products/702001-101196-PDF.pdf)
(Tekka deposit is hard-rock tin deposit in Kinta Valley. Cassiterite in mineralized veins (5mm- 1m thick) in granites and schists, associated with Triassic Main Range biotite granite. Early high T mineralization with cassiterite, columbite/tantalite and wolframite, followed by late stage low T minerals galena and stibnite)

Tjia, H.D. & M.M. Zain (2002)- Shock structures in Peninsular Malaysia: evidence from Kedah and Pahang. Geol. Soc. Malaysia Ann. Geol. Conf. 2002, Kota Bharu, Kelantan, p. 103-109.
(online at: www.gsm.org.my/products/702001-100736-PDF.pdf)
(Double Mahsuri Rings in S C Langkawi are impact structures. Each ring 2.4 km across, with depths of 45-107m and part of series of 4 structures, representing serial impacts of extraterrestrial projectiles arriving from SW. Age post Triassic-Jurassic granite, but could be of Neogene age)

Tsegab, H., W.S. Chow, A.Y. Gatovsky, A.W. Hunter, J.A. Talib & S. Kassa (2017)- Higher-resolution biostratigraphy for the Kinta Limestone and an implication for continuous sedimentation in the Paleo-Tethys, Western Belt of Peninsular Malaysia. Turkish J. Earth Sciences 26, p. 377-394.
(online at: http://journals.tubitak.gov.tr/earth/issues/yer-17-26-5/yer-26-5-3-1612-29.pdf)
(Kinta Limestone in C part of W Belt of Peninsular Malaysia (=Sibumasu terrane) extensively altered by diagenesis, making age determinations challenging. Three boreholes (total 360m) drilled at either end of Kinta Valley. Conodonts incl. Pseudopolygnathus triangulus and Declinognathodus noduliferus, indicate Late Devonian (Famennian)- Late Carboniferous (Bashkirian) age)

Tsegab, H., W.S. Chow & J.A. Talib (2017)- Lithostratigraphy of Paleozoic carbonates in the Kinta Valley, Peninsular Malaysia: analogue for Paleozoic successions. In: M. Awang et al. (eds.) Proc. Int. Conf. Integrated Petroleum Engineering and Geosciences (ICIPEG2016), Kuala Lumpur 2016, Springer Verlag, p. 559-567.
(W zone of Malay Peninsula (= Sibumasu terrane) with extensive Paleozoic carbonate sediments, incl. Kinta Limestone (Silurian-Permian))

Tsegab, H., Chow W. Sum & A.W. Hunter (2015)- Preservation of marine chemical signatures in Upper Devonian carbonates of Kinta Valley, Peninsular Malaysia: implications for chemostratigraphy. In: M. Awang et al. (eds.) Proc. ICIPEG 2014 Conf., Singapore, Springer, p. 291-302.

Ulfa, Y., M.H. Hafizzy & M. Farhan (2012)- Structural characteristics of the Semanggol Formation along the East-West Highway Route 67 Baling Area, Kedah, Malaysia. Eksplorium 33, 2, p. 83-96.
(online at: http://jurnal.batan.go.id/index.php/eksplorium/article/view/2659/2447)
(Structural deformation in 6 outcrops in Permian-Triassic Semanggol Fm in NW Malay Peninsula. Regional strike NE-SW, with most dips to SE)

Willbourn, E.S. (1936)- A short account of the geology of those tin-deposits of Kinta that are mined by alluvial methods. J. Engineering Assoc. Malaysia. 4, p. 255-264.

Wyatt, D.J. (1983)- Lithostratigraphy and sedimentology of the Ordovician Lower Setul Limestone, Langkawi Islands, Malaysia. Thesis, University of Tasmania, p. 1-125.

Yanagida, J. & P.C. Aw (1979)- Upper Carboniferous, Permian and Triassic brachiopods from Kelantan, Malaysia. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 20, p. 119-141.

Yanagida, J. & S. Sakagami (1971)- Lower Carboniferous brachiopods from Sungei Lembing district, NW of Kuantan, Malaysia with a brief note on the bryozoans in association with brachiopods. Mem. Fac. Science Kyushu University, Ser. D (Geology), 21, p. 75-91. *(also in Geology and Palaeontology of SE Asia 11?)*
(Seven species of brachiopods from siltstones of Lower Carboniferous Calcareous Series of E Pahang. Assemblage strong affinity with M Visean fauna of Russian Central Asia and N America)

IX.3. Thailand (289)

Agematsu, S., K. Sashida, S. Salyapongse & A. Sardsud (2006)- Lower and Middle Ordovician conodonts from the Thung Song and Thung Wa areas, southern peninsular Thailand. Paleontological Research 10, 3, p. 215-231.
(online at: https://www.jstage.jst.go.jp/article/prpsj/10/3/10_3_215/_pdf)
(15 species of E-M Ordovician (M Arenigian- E Caradocian) conodonts from Thung Song Gp in S Peninsular Thailand. Affinities with faunas in Australia, S China, Argentina and N America midcontinent)

Agematsu, S., K. Sashida & A. Sardsud (2008)- Reinterpretation of Early and Middle Ordovician conodonts from the Thong Pha Phum area, western Thailand, in the context of new material from western and northern Thailand. Paleontological Research 12, 2, p. 181-195.
(E and M Ordovician conodonts Thong Pha Phum and Kanchanaburi areas in W Thailand and Li area in N Thailand. Two zones, Triangulodus larapintinensis and Aurilobodus leptosomatus. Two regression events in latest E Ordovician and earliest M Ordovician)

Anderson, K. (2017)- Pennsylvanian- Early Permian Pha Nok Khao platform margin evolution and paleoecology of carbonate buildups, Loei-Phetchabun foldbelt, NE Thailand. Ph.D. Thesis University of Western Australia, Perth, p. 1-271.
(online at: http://research-repository.uwa.edu.au/files/16863899/THESIS_DOCTOR_OF_PHILOSOPHY_ANDERSON_Kaylee_Dawn_2017_Part_1.pdf)

Arboit, F., K. Amrouch, C.K. Morley, A.S. Collins & R. King (2017)- Palaeostress magnitudes in the Khao Khwang fold-thrust belt, new insights into the tectonic evolution of the Indosinian orogeny in central Thailand. Tectonophysics 710-711, p. 266-276.
(Calcite twinning analysis in Khao Khwang fold-thrust belt in Saraburi Province, C Thailand, to quantify palaeostresses magnitudes since onset of Indosinian orogeny. Foldbelt located on SW margin of Indochina Block. M Permian structural regime likely dominated by foreland flexure or extension due to back-arc rifting. Thrusting/folding in KKFTB began in E Triassic. Possibly later reactivation coeval with phase of fold tightening in Late Triassic after Sibumasu-Indochina collision. Maximum depositional ages of syntectonic sediments in foredeep 251 ± 3 Ma, and foreland 205 ± 6 Ma)

Arsairai, B. (2014)- Depositional environment and petroleum source rock potential of the Late Triassic Huai Hin Lat Formation, Northeastern Thailand. Doct. Engin. Thesis, Sunaree University of Technology, p. 1-310.
(online at: http://sutir.sut.ac.th:8080/sutir/bitstream/123456789/5758/1/Fulltext.pdf)
(Organic-rich shales of Late Triassic Huai Hin Lat Fm in Sap Phlu and Na Pho Song basins include excellent gas source rocks)

Arsairai, B., A. Wannakomol, Q. Feng & C. Chonglakmani (2016)- Paleoproductivity and paleoredox condition of the Huai Hin Lat Formation in northeastern Thailand. J. Earth Science (China) 27, 3, p. 350-364.
(online at: http://en.earth-science.net/PDF/20160612012847.pdf)
(Lacustrine facies of Late Triassic Huai Hin Lat Fm at Khorat Plateau of NE Thailand believed to be one of main source rocks of gas. Organic matter mainly of AOM and acritarchs, with TOC of 2-7%. Mainly Type I and II kerogens with some Type III as indicated by phytoclasts, spores, and pollen)

Assavapatchara, S. & L. Raksaskulwong (2010)- Geologic investigation at Paklay- Kenthao area, Lao PDR. In: P. Puncharoen (ed.) Proc.Thai-Lao Techn. Conf. on Geology Mineral Resources, Bangkok, p. 197-217.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2010/25987.pdf)
(Correlation of Silurian-Cretaceous stratigraphy between Paklay- Kenthao area in Laos and Loei-Phitsunulok-Uttaradit region of N Thailand. No maps)

Barr, S.M. & A.S. MacDonald (1978)- Geochemistry and petrogenesis of Late Cenozoic alkaline basalts of Thailand. Bull. Geol. Soc. Malaysia 10, p. 25-52.
(online at: www.gsm.org.my/products/702001-101285-PDF.pdf)

(Pleistocene(?) basalts of Thailand small plugs, vents and flows. Part of large NW-SE trending alkaline basalt province through Thailand, Cambodia, Laos, Vietnam, increasing in volume to SE. Thai basalts mainly in two groups: basanitoid (formed by partial melting in mantle at high P, followed by rapid ascent; with gem-quality corundum and zircon) and hawaiitic.Also rare tholiitic basalts. Possibly related to rifting of S China Sea and associated basins (unlikely?; JTvG))

Barr, S.M., A.S. MacDonald, N.S. Haile & P.H. Reynolds (1976)- Paleomagnetism and age of the Lampang basalt (northern Thailand) and the age of the underlying pebble tools. J. Geol. Soc. Thailand 2, 1, p. 1-10.
(online at: http://library.dmr.go.th/Document/J-Index/1976/36.pdf)
(Quaternary Lampang basalt flows in area of ~200 km2 in NW Thailand. Overlie gravels with Early Paleolithic pebble tools. Reversed-to-normal magnetic polarity change recorded within basalt series, probably Matuyama-Brunhes boundary of 0.69 Ma (now assumed to be closer to 0.78 Ma; JTvG). Pebble tools must be older)

Blum J.D., D.A. Papanastassiou, C. Koeberl & G.J.Wasserburg (1992)- Nd and Sr isotopic study of Australasian tektites: new constraints on the provenance and age of the target materials. Geochimica Cosmochimica Acta 56, 1, p. 483-492.
(Nd and Sr isotopic studies of Australites tektites suggest source material derived mainly from Proterozoic crustal terrane. Sr analyses of Muong Nong-type layered indochinite tektites from NE Thailand yield isochron age of ~170 Ma, possibly time of deposition of sedimentary target rocks. Compositional layering in Muong Nong-type tektites may reflect compositional variability of Jurassic sediments. Impact site may be in area of Jurassic sedimentary bedrock, near N Cambodia, S Laos or SE Thailand)

Boonchai, N., P.J. Grote & P. Jintasakul (2009)- Paleontological parks and museums and prominent fossil sites in Thailand and their importance in the conservation of fossils. In: J.H. Lipps & B.R.C. Granier (eds.) Paleoparks and the protection and conservation of fossil sites worldwide, Carnets de Geologie, Book 2009/03, Chapter 7, p. 75-95.
(online at: http://paleopolis.rediris.es/cg/CG2009_BOOK_03/CG2009_BOOK_03_Chapter07.pdf)
(Incl. Petrified Forest Park in Tak Province, NW Thailand. Large silicified tree trunks, ~800,000 years old)

Boonsener, M. & K. Sonpirom (1997)- Correlation of Tertiary rocks in northeast Thailand In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 2, p. 656-661.

Boonsoong, A. (2007)- Petrography and geochemistry of the Chanthaburi-Trat basalt, Thailand. In: W. Tantiwanit (ed.) Int. Conf. on Geology of Thailand: Towards sustainable development and sufficiency economy (GEOTHAIǿ07), Bangkok, Dept. Mineral Resources, p. 242-250.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2007/12729.pdf)
(Late Cenozoic (24 -<0.5 Ma) basalts in mainland SE Asia (Vietnam, China, Thailand, Malaysia) interpreted to have erupted in continental rift environments. Chanthaburi-Trat basalts transitional between trachybasalts and basanites. Magma was generated in continental rift environment, in fertile mantle at ~35km depth).)

Boonsoong, A., Y. Panjasawatwong & K. Metparsopsan (2011)- Petrochemistry and tectonic setting of mafic volcanic rocks in the Chon Daen-Wang Pong area, Phetchabun, Thailand. Island Arc 20, 1, p. 107-124.
(Mafic volcanic rocks and hypabyssal rocks in Chon Dean-Wang Pong area possibly S extension of western Loei volcanic Sub-belt, NE Thailand. Possibly Permian-Triassic age and formed in volcanic arc setting)

Buffetaut, E. & R. Ingavat (1986)- Unusual theropod dinosaur teeth from the Upper Jurassic of Phu Wiang, northeastern Thailand. Revue Paleobiologie 5, p. 2, 217-220.
(With Siamosaurus suteethorni n.sp.)

Buffetaut, E., S. Suteethorn, V. Suteethorn, U. Deesri & H Tong (2013)- Preliminary note on a small ornithopod dinosaur from the Phu Kradung Formation (terminal Jurassic- basal Cretaceous) of Phu Noi, north-eastern Thailand. J. Science Technology Mahasarakham University 33, 4, p. 344-347.
(online at: http://research.msu.ac.th/msu_journal/upload/journal_file/jfile_no34_44342.pdf)

Buffetaut, E.H., V. Suteethorn, G. Cuny, H. Tong, J. Le Loeuff, S. Khansubha & S. Jongautchariyakul (2000)- The earliest known sauropod dinosaur. Nature 407, 6800, p. 72-74.
(Incomplete sauropod skeleton from fluvial Late Triassic NamPhong Fm at Phu Nok Khian hill near Ban Non Thaworn village, Khorat Plateau, NE Thailand: Isanosaurus attavipachi gen. et sp. nov.)

Buffetaut, E.H., V. Suteethorn, J. Le Loeuff, G. Cuny, H. Tong & S. Khansubha (2002)- A review of the sauropod dinosaurs of Thailand. In: N. Mantajit (ed.) Proc. Symposium on Geology of Thailand, Bangkok 2002, Dept. Mineral Resources, p. 95-101.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2002/6379.pdf)
(Record of sauropod dinosaurs from NE Thailand starts in Late Triassic (Isanosaurus attavipachi, Nam Phong Fm) and ends in M Cretaceous)

Buffetaut, E.H., V. Suteethorn, V. Martin, H. Tong ,T. Chaimanee & S. Triamwichanon (1995)- New dinosaur dicoveries in Thailand. Int. Conf. Geology, Geotechnology and Mineral Resources of Indochina (Geo-Indo '95), Khon Kaen, p. 157-161.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1995/7426.pdf)

Buffetaut, E., V. Suteethorn & H. Tong (1996)- The earliest known tyrannosaur from the Lower Cretaceous of Thailand. Nature 381, 6584, p. 689-691.
(New incomplete skeleton of large theropod from E Cretaceous (Berriasian- Barremian) Sao Khua Fm of NE Thailand described as Siamotyrannus isanensis. May be early representative of Tyrannosauridae (20 My older than earliest known tyrannosaurids))

Buffetaut, E.H., V. Suteethorn & H. Tong (2006)-Dinosaur assemblages from Thailand: a comparison with Chinese faunas. In: J.C. Lu et al. (eds.) Papers Heyuan Int. Dinosaur Symposium, Beijing 2005, Geological Publishing House, p. 19-37.

Buffetaut, E., V. Suteethorn & H. Tong (2009)- An early óostrich dinosaurô (Theropoda: Ornithomimosauria) from the Early Cretaceous Sao Khua Formation of NE Thailand. In: E. Buffetaut et al. (eds.) Late Palaeozoic and Mesozoic ecosystems in SE Asia, Geol. Soc., London, Spec. Publ. 315, p. 229-243.
(Remnants of new taxon of ornithomimosaur, Kinnareemimus khonkaenensis n. gen., n.sp.)

Buffetaut, E.H., V. Suteethorn, H. Tong, Y. Chaimanee & S. Khansubha (1997)- New dinosaur discoveries in the Jurassic and Cretaceous of northeastern Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 177-187.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(New dinosaur finds in Late Jurassic- M Cretaceous of NE Thailand)

Buffetaut, E.H., V. Suteethorn, H. Tong, G. Cuny & L. Cavin (2003)- A pterodactyloid tooth from the Sao Khua Formation (Early Cretaceous) of Thailand. Mahasarakham University J. 22, Special Issue, p. 92-98.

Buffetaut, E.H., V. Suteethorn, H. Tongy & A. Kosir (2005)- First dinosaur from the Shan-Thai block of SE Asia: a Jurassic sauropod from the southern peninsula of Thailand. J. Geol. Soc., London, 162, 3, p. 481-484.
(Vertebra collected from Jurassic non-marine Khlong Min Fm of S Thailand referred to sauropod dinosaur family Euhelopodidae, apparently endemic to E Asia in Jurassic- E Cretaceous. Occurrence in Shan-Thai Block supports idea of a collision of the Shan-Thai Block with Indochina Block before Jurassic)

Bunopas, S. (1990)- Tektites- their origin and the continental catastrophic destruction in NE Thailand and Indochina. Proc. 16th Conf. Sciences and Technology of Thailand, Bangkok, p. 512-513.
(see also Bunopas, Wasson et al. 1999a,b)

Bunopas, S. (1992)- Regional stratigraphic correlation in Thailand. In: Nat. Conf. Geologic resources of Thailand potential for future development, DMR, Bangkok, p. 189-208.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1992/6197.pdf)
(Review of new Paleozoic- Cenozoic stratigraphic nomenclature in 7 stratigraphic belts of Thailand: (1) Archeotectonics- Precambrian- Lower Paleozoic Shan-Thai and Indochina part of Australian Gondwana; (2) Paleotectonics; Shan Thai and possibly Indochina rifting in Paleozoic, >180° CW rotation as it moved from S to N Hemisphere and collided with. each other near end-Triassic; (3) Mesotectonics; latest Triassic- Jurassic post-orogenic stage, with early M Cretaceous CW rotation, causing folding along W mountains and downwarping of Khorat Plateau with evaporite deposition; (4) Neotectonics; Cenozoic extension))

Bunopas, S., S. Khositanont & J.T. Wasson (1997)- Evidences of the Early Quaternary global disaster and destruction from extraterrestrial impacts of comet in NE Thailand and South Indochina within the Australasian tektites field: the last mass extinction. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 434-435. *(Extended Abstract)*
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_3/2540_1/8440.pdf)
(Extinction of many mammals and marsupials and formerly widespread Dipterocaryoxylon plant in S and E Asia, up to 10m thick structureless atmospheric sand and loess across Khorat Plateau, etc. all related to ~700,000 yr Pleistocene Australasian tektite field/ asteroid impact))

Bunopas, S. & P. Vella (1992)-Geotectonics and geologic evolution of Thailand. In: Nat. Conf. Geologic resources of Thailand: potential for future development, Bangkok, p. 209-228.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1992/6198.pdf)
(Review of Thailand tectonic history. Seven major stratigraphic belts in Thailand (5 on Shan Thai, 2 on Indochina Block. Paleomagnetic data suggest >180° CW rotation of Shan-Thai (= Sibumasu) between Carboniferous and Triassic, after rifting from Gondwana)

Bunopas, S., J.T. Wasson, P. Vella, H. Fontaine, S. Hada, C. Burrett, T. Suphajanya & S. Khositanont (1999)- Ancient analogs of burial alive extinction of the mastodons in catastroloess in Thailand, and of the last dinosaurs (in eggs) in Gobi desert: further on tektites. In: Symposium Mineral, energy and water resources of Thailand: towards the year 2000, Bangkok, p. 168-177.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1999/6614.pdf)
(Quaternary sudden mass extinction of mastodons, stegodons and other mammals and reptiles, buried alive under catastroloess in sandpits of Khorat, NE Thailand. Associated with common burnt and abruptly felled trees and tied to Buntharik Impact Event, which generated widespread tektites. Caused E Quaternary extinction across >1/4 of globe. Probably multiple impact craters in NE Thailand- E Cambodia-SE Laos- Hainan)

Bunopas, S., N. Yaemniyoun & S. Khositanont (1999)- Catastroloess and its derivatives, the life time sustainable contruction was originally high atmospheric settling in the Quaternary cometary impact in Thailand and Asia. In: Proc. Symposium Mineral, energy and water resources of Thailand: towards the year 2000, Bangkok 1999, p. 142-151.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1999/6611.pdf)
(Widespread yellow fine construction sands across NE Thailand are derivatives of Pleistocene catastrophic loess that originally formed 10-50m thick blanket across Thailand (not windblown sands). With microtektites, formed at ~0.770 Ma, and tied to comet impact. Covers tektite horizons, burnt petrified trees, burnt trees, ancient elephants, etc., and also E Quaternary tin placers)

Buravas, S.C. (1957)- Age of the Mae Soon Oil Field of Fang Basin, Chiang Mai Province. In: Proc. Conference on the Geology of Thailand, 2, p. 61-65.
(Tertiary oil-bearing deposits of Fang Basin with freshwater molluscs Viviparus and Unio, and plant remains. Preliminary spores-pollen identifications suggest Oligocene age

Burrett, C., H. Thassanapak & M. Udchachon (2015)- Upper Devonian (Famennian) conodonts from radiolarian cherts, Loei Terrane, Loei Province, Northeast Thailand. Research and Knowledge 1, 2, p. 26-32.

(online at: https://rk.msu.ac.th/wp-content/uploads/2016/02/rkv2-03-indd-5.compressed.pdf)
(Conodonts from radiolarian cherts in Loei Terrane, NE Thailand (W margin Indochina block), include Palmatolepis triangularis, P. minuta ssp and polygnathids, indicating Famennian crepida Zone age. Cherts ~20 My younger than Givetian reef limestones and unlikely deposited in major ocean, but rather in deep marine basin close to volcanic arc)

Busse, A.G., B. Orberger, S. Pitragool, L. Zenker & G. Friedrich (1990)- Preliminary petrographic and geochemical investigations on mafics and ultramafics from the Phrae Nan chromite mining district in comparison to the Ban Pak Nai area: The Nan river suture zone, northern Thailand. In: T. Thanasuthipitak & P. Ounchanum (eds.) Proc. Int. Symp. Intermontane basins: geology and resources, Chiang Mai, p. 493-501.

Cappetta, H., E. Buffetaut & V.Suteethorn (1990)- A new hybodont shark from the Lower Cretaceous of Thailand. Neues Jahrbuch Geol. Palaont., Monatshefte 11, p. 659-666.
(Lower Cretaceous freshwater shark fossils from Khorat Gp of Thailand, incl. Thaiodus ruchae n.sp.. Thaiodus also known from Lhasa Block (Tibet) (see also Cuny et al. 2003, 2004, 2006))

Cappetta, H., E. Buffetaut, G. Cuny & V.Suteethorn (2006)- A new elasmobranch assemblage from the Lower Cretaceous of Thailand. Palaeontology 49, 3, p. 547-555.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1475-4983.2006.00555.x/pdf)
(New elasmobranch shark teeth from diverse freshwater fauna from fluvial Khok Kruat Fm in Khok Pha Suam, SE part of Khorat Plateau, NE Thailand. Incl. Thaiodus ruchae, Acrorhizodus khoratensis, Hybodus, etc.)

Cavin, L., E. Buffetaut, K. Lauprasert, J. Le Loeuff, P. Lutat, M. Philippe, U. Richter & H. Tong (2004)- A new fish locality from the continental Late Jurassic- Early Cretaceous of north-eastern Thailand. Revue Paleobiologie, Spec. Vol. 9, p. 161-167.
(Phu Nam Jun in Khorat Plateau of NE Thailand with 124 specimens of fish, all but two Lepidotes buddhabutrensis)

Cavin, L., U. Deesri & V. Suteethorn (2013)- Osteology and relationships of *Thaiichthys* nov. gen.: A Ginglymodi from the Late Jurassic - Early Cretaceous of Thailand. Palaeontology 56, 1, p. 183-208
(Well-preserved freshwater fish Thaiichthys buddhabutrensis, n. gen.,from Late Jurassic- E Cretaceous of Thailand)

Cavin, L., U. Deesri & V. Suteethorn (2014)- Ginglymodian fishes (Actinopterygii, Holostei) from Thailand: an overview. J. Science Technol. Mahasarakham University (MSU) 33, 4, p. 349-356.
(online at: http://research.msu.ac.th/msu_journal/upload/journal_file/jfile_no34_44342.pdf)
(Ginglymodian fishes are relatively common in Mesozoic of Thailand. Two genera and three species identified so far (Thaiichthys buddhabutrensis, Isanichthys palustris), but many more taxa present. Known Isanichthys species restricted to N margin of Tethys in M Jurassic- basal Cretaceous time)

Cavin, L. & V. Suteethorn (2006)- A new semionotiform (Actinopterygii, Neopterygii) from Upper Jurassic-Lower Cretaceous deposits of north-east Thailand with comments on the relationships of semionotiforms. Palaeontology 49, 2, p. 339-353.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1475-4983.2006.00539.x/epdf)
(New semionotiform freshwater fish, Isanichthys palustris, from Late Jurassic- E Cretaceous Phu Kradung Fm, NE Thailand)

Cavin, L., V. Suteethorn, E. Buffetaut, S. Chitsin, K. Lauprasert, J. Le Loeuff, P. Lutat, M. Philippe, U. Richter & H. Tong (2004)- A new fish locality from the continental Late Jurassicï Early Cretaceous of northeastern Thailand. Revue Paleobiologie 9, p. 160-167.

Cavin, L., V. Suteethorn, E. Buffetaut & H. Tong (2007)- A new Thai Mesozoic lungfish (Sarcopterygii, Dipnoi) with an insight into post-Palaeozoic dipnoan evolution. Zool. J. Linnean Society 149, 2, p. 141-177.
(online at: https://watermark.silverchair.com/j.1096-3....)

(New species of freshwater dipnoi/ lungfish (Ferganoceratodus martini) from Late Jurassic or basal Cretaceous upper Phu Kradung Fm of Phu Nam Jun, Kalasin Province, NE Thailand (Khorat Gp). Comprises almost complete skull roof, jaws and some postcranial remains)

Cavosie, A.J., N.E. Timms, T.M. Erickson & C. Koeberl (2018)- New clues from Earth's most elusive impact crater: evidence of reidite in Australasian tektites from Thailand. Geology 46, 3, p. 203-206.
(Former presence of reidite (high-P polymorph of zircon) detected in zircon grains in Muong Nong-type tektites from Thailand. Preserved microstructures and dissociation of zircon to ZrO2 and SiO2 require pressure of >30 GPa and T >1673°C, the most extreme conditions reported for Australasian tektites so far)

Chantong, W., P. Srisuwon, C. Kaewkor, C. Praipipan & S. Ponsri (2013)- Distributions of the Permo-Carboniferous rocks in the Khorat Plateau Basin. In: Proc. 2nd Lao-Thai Technical Conference on geology and mineral resources, Vientiane, p. 73-80.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/2013/36770.pdf)
(Permian carbonate major petroleum reservoir in Khorat Plateau. 47 wells drilled, two producing gas fields (Nam Phong and Sin Phu Horm) from reservoirs in Permo-Carboniferous carbonate platform, with thrust fault resulting in fracture development. Dong Mun Gas field in development, in carbonate reef with karst topography. 18 separate isolated carbonate platforms identified from seismic)

Chaodumrong, P. & C.F. Burrett (1997)- Early Late Triassic continental colliding between Shan- Thai and Indochina terranes as indicated by occurrence of fan delta red beds of Pha Daeng Formation Central North Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 143-157.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1997/7632.pdf)
(In Lampang basin of C N Thailand 200-700m thick early Late Triassic shallow marine 'red bed' fan delta deposits, sourced from active magmatic arc in extensional forearc basin on Shan-Thai (Sibumasu) terrane during collision with W-dipping Indochina terrane. With marine mudstone with M Carnian ingularis fauna. Paleocurrents mainly from W and S)

Chaodumrong, P. & Y. Chaimanee (2002)- Tertiary sedimentary basins in Thailand. In: The Symposium on Geology of Thailand, Bangkok, p. 156-169.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2002/6389.pdf)
(At least 70 named Tertiary intermontane and rift basins in Thailand, with many similarities. Tied to N-ward movement of India. Basins in S formed earlier than in N, in W earlier than E. Alluvial facies dominant in lower and upper parts, flluvio-lacustrine and swamp facies common in middle part)

Charoentitirat, T. (2005)- Development of Indochina carbonates during Late Paleozoic time based on fusulinoidean data. In: K. Ueno et al. (eds.) Proc. First Int. Symp. Geological anatomy of East and South Asia, paleogeography and paleoenvironment in Eastern Tethys (IGCP 516), Tsukuba, p. *(Abstract?)*

Charusiri, P., W. Lunwongsa & P. Laochu (2003)- Geophysical investigations at Khao Nang Klu lead deposit, Ban Kli Ti, Kanchanaburi, Western Thailand: implications for tectonic structures ore locallization and exploration. Science Asia 29, p. 265-277.
(online at: www.scienceasia.org/2003.29.n3/v29_265_277.pdf)

Charusiri, P., T. Pungrassami & G. Sinclair (2006)- Classification of rare-earth element (REE) deposits in Thailand: a genetic model. J. Geol. Soc. Thailand 1, p. 57-66.
(online at: http://library.dmr.go.th/Document/J-Index/2005-2006/2848.pdf)
(Rare Earth minerals in Thaialnad mainly monazite, and also xenotime and microlite. Primary REE deposits associated with tin granitoids of S-type affinity and mainly in Cretaceous- Tertiary Western Granitoid Belt. Alluvial placersnear weathered granites may yield variable amounts of REE ores, mainly near granitoid terraces of western Gulf of Thailand, possibly also along Andaman Sea)

Charusiri, P., T. Rewbumroong , K. Rittidate & N. Srinak (2014)- Tectonic evolution of Cenozoic basins in Thailand with special emphasis on Mae Moh Basin, northern Thailand. In: Development of the Asian Tethyan Realm, Proc. 3rd Int. Symposium Int. Geosciences Program (IGCP) Project 589, Tehran 2014, p. 68-70. *(Abstract)*
(N-S trending Cenozoic basins of Thailand inferred to have developed in Late Eocene- E Oligocene as result of extrusion tectonics of SE Asian block, along major NE-SW trending fault zones. Most basins regarded as pull-apart basins. Deposition started with localized lacustrine and alluvial deposition in Oligocene, followed by fluvial and marginal marine deposits. Four main tectonic episodes: (1) pull-apart and transtensional rifting (55-30 Ma), marked at end by M Tertiary unconformity; (2) quiescent thermal subsidence event (30-15 Ma) involving widespread transpression and extensive delta progradation; (3) transpression wrenching event (15-7 Ma) due to on-going dextral shear along major NW-trending fault zones, with subsequent basin inversion and folding; end marked by late M Miocene unconformity; (4) post-rifting (7 Ma- Recent))

Charusiri, P., C. Sutthirat, C. Plathong & W. Pongsapich (2004)- Geology and petrochemistry of basaltic Rocks at Khao Kradong, Burirum, NE Thailand: implications for rock wool potentials and tectonic setting. J. Scient. Res. Chulalongkorn University 29, 2, p. 81-103.
(Khao Kradong in Burirum national park in NE Thailand is small basaltic volcanic cone in Cenozoic basaltic terrain of ~30 km2. Age from whole-rock Ar/Ar dating 1 Ma. Rocks transitional from hawaiite to alkali olivine basalt. Part of Cenozoic basalts of continental-rift origin of Laos-Cambodia- Vietnam)

Charusiri, P., C. Sutthirat & V. Daorerk (2009)- Introduction to Rare-Earth metal resources in Thailand. 6th Int. Conf. Materials Engineering for Resources (ICMR) 2009, Akita, Keynote Session, A1-3, p. 73-78.
(online at: www.eatgru.sc.chula.ac.th/Thai/research/pdf/paper/93.pdf)
(Monazite and xenotime significant rare earth minerals occurring with tin-tungsten deposits in granites and pegmatites and in Quaternary fluvial and beach deposits. Ilmenite- series granites more rare earth minerals than magnetite - series granites. Weathering crust of granites-pegmatites of important economic significance. In S Thailand highest RE metal contents 0.092%. Important secondary provinces in Songkhla and Yala of S Thailand with up to 0.045% monazite and 0.196% xenotime)

Chavasseau, O., Y. Chaimanee, C. Yamee, P. Tian, M. Rugbumrung, B. Marandat & J.J. Jaeger (2009)- New Proboscideans (Mammalia) from the Middle Miocene of Thailand. Zool. J. Linnean Soc. 155, 3, p. 703-721.
(online at: https://watermark.silverchair.com/....)
(M Miocene proboscidean fauna of NW Thailand E of Chiang Mai five taxa (4 elephantoids, 1 deinothere), dominated by Stegolophodon and Gomphotherium. Thai proboscidean asssemblage mainly endemic, although Gomphotherium cf. browni denotes faunal affinities with Pakistan)

Cheneval, J., L. Ginsburg & C. Mourer-Chauvire (1984)- Discovery of an avifauna from the Miocene of Northern Thailand. Comptes Rendus Academie Sciences Paris 299, Serie II, 19, p. 1369-1372.

Cheneval, J., L. Ginsburg & C. Mourer-Chauvire & B. Ratanasthien (1991)- The Miocene avifauna of the Li Mae Long locality, Thailand: systematics and paleoecology. J. Southeast Asian Earth Sci. 6, 2, p. 117-126.
(Miocene bird fossils from Li Mae Long includes anhinga, heron, lesser flamingo (Phoeniconaias siamensis n. sp.), etc.. Probably in large swampy depression surrounded by humid forests, under warm climate)

Chenrai, P. (2012)- Paleocurrent analysis of the Sao Khua Formation, Khorat Group, Nong Bua Lamphu region, NE Thailand. Arabian J. Science Engineering 37, 1, p. 115-120.
(Paleocurrent analysis in sandstones of E Cretaceous Sao Khua Fm of Khorat Plateau shows paleocurrent trend of sand channels dominantly NE; probabl yin braided channel environment)

Chonglakmani, C., H. Fontaine & D. Vachard (1983)- A Carboniferous -Lower Permian(?) section in Chon Daen, Central Thailand. In: Symposium on Stratigraphy of Thailand, Bangkok, Dept. Mineral Resources, p. 1-5.

Chualaowanich, T., D. Saisuthichai, P. Sarapanchotewittaya, P. Charusiri, C.L. Sutthirat, T.Y. Lee. & M.W. Yeh (2008)- New 40Ar/39Ar ages of some Cenozoic basalts from the east and northeast of Thailand. Proc. Int. Symposia on Geoscience Resources and Environments of Asian Terranes, Bangkok, p. 225-229.

Chuaviroj, S. (1997)- Deformations in Khorat Plateau Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 321-325.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1997/7642.pdf)
(Three deformation phases in Khorat Plateau, NE Thailand, from Landsat interpretation. Oldest N-S trending, tied to Late Cretaceous Shan Tai- Indochina collision; younger events NW-SE trending folds tied to E Tertiary India collision)

Chutakositkanon, V., K.I. Hisada, P. Charusiri & S. Arai (2001)- Tectonic significance of detrital chromian spinels in the Permian Nam Duk Formation, central Thailand. Geosciences J. 5, p. 89-96.
(Detrital chromian spinels in turbiditic sandstones of Permian Nam Duk Fm suggest mafic- ultramafic volcanics and peridotites of arc origin were exposed in region in Permian. Loei-Phetchabun-Ko Chang volcanic belt, possible candidate for source of detrital Cr-spinels. Associated limestone beds with Pseudodoliolina pseudolepida and Verbeekina verbeeki suggest late M Permian age for Nam Duk Fm)

Claude, J., V. Suteethorn & H. Tong (2007)- Turtles from the late Eocene- early Oligocene of the Krabi Basin (Thailand). Bull. Soc. Geologique France 178, 4, p. 305-316.
(Two new species of geoemydid turtles from three lignite pits in latest Eocene- earliest Oligocene of Krabi Basin in SW Peninsular Thailand; early representatives of testudinoid turtles from SE Asia. Eocene turtle assemblage from Krabi different Eocene Pondaung Fm of Myanmar, dominated by highly aquatic taxa, while Krabi fauna mostly composed of smaller aquatic or more semi-terrestrial species)

Cobbing, J. (2004)- The gneissic granites of northern Thailand. In: V. Daorerk & M. Kimata (eds.) Int. Symposium on the geologic evolution of East and Southeast Asia: microcontinental accretion and formation of marginal sea, Chulalongkorn University, p. 28-31.

Cuny, G. (2012)- Freshwater hybodont sharks in Early Cretaceous ecosystems: a review. In: P. Godefroit (ed.) Bernissart dinosaurs and Early Cretaceous terrestrial ecosystems. Indiania University Press, Bloomington, p. 518-529.
(Includes newly defined Heteroptychodus-Thaiodus Province of SE Asian E Cretaceous freshwater sharks)

Cuny, G., V. Suteethorn, E. Buffetaut & M. Philippe (2003)- Hybodont sharks from the Mesozoic Khorat Group of Thailand. Mahasarakham University J. 22 (Special issue), p. 49-68.

Cuny, G., V. Suteethorn, S. Kamha, E. Buffetaut & M. Philippe (2006)- A new hybodont shark assemblage from the Lower Cretaceous of Thailand. Historical Biology 18, 1, p. 21-31.
(Tteeth of five hybodont taxa from freshwater E Cretaceous Sao Khua Fm of Khorat Plateau. Fauna appears less endemic, with some European affinities, than fauna from younger Aptian-Albian Khok Kruat Fm)

Cuny, G., V. Suteethorn & S. Khansubha (2015)- A sclerorhynchoid (Chondrichthyes: Batomorphii) in the Lower Cretaceous of Thailand? In: R.M. Sullivan and S.G. Lucas (eds.) Fossil Record 4, New Mexico Museum Natural History Science Bull. 67, p. 15-17.
(Possible sclerorhynchid rostral tooth in Barremian freshwater Sao Khua Fm of Khorat Gp of NE Thailand)

Deesri, U., L. Cavin, J. Claude, V. Suteethorn & P. Yuangdetkla (2009)- Morphometric and taphonomic study of a ray-finned fish assemblage (*Lepidotes buddhabutrensis*, Semionotidae) from the Late Jurassic-earliest Cretaceous of NE Thailand. In: E. Buffetaut et al. (eds.) Late Palaeozoic and Mesozoic continental ecosystems in SE Asia, Geol. Soc., London, Special Publ. 315, p. 115-124.

Deesri, U. (2017)- Taxic diversity and ecology of Mesozoic bony fish assemblages from the Khorat Group, NE Thailand. Research and Knowledge 3, 2 p. 18-22.
(online at: doi.nrct.go.th/ListDoi/Download/.../0413d160426beeb7c065c3cb57bc63e0?)
(Khorat Gp in NE Thailand with 5 M? Jurassic- Aptian continental formation with succession of freshwater bony fish assemblages in 15 localities)

Deng, T., R. Hanta & P. Jintasakul (2008)- A new species of *Aceratherium* (Rhinocerotidae, Perissodactyla) from the late Miocene of Nakhon Ratchasima, northeastern Thailand. J. Vertebrate Paleontology 33, 3, p. 977-985.
(New skull and mandible of mid-sized rhinocerotid Aceratherium from Tha Chang sand pits in Nakhon Ratchasima Province, described as A. porpani. First discovery of Aceratherium in Thailand. Mixture of primitive and derived characters that differ from known species of Aceratherium. Probably latest Miocene)

Department of Mineral resources (2014)- Geology of Thailand. Department of Mineral Resources, Bangkok, Thailand, p. 1-508.
(online at: www.dmr.go.th/ewt_dl_link.php?nid=77457&filename=index___EN)

Dew, R.E.C., A.S. Collins, R. King, F. Arboit, S. Glorie & C.K. Morley (2015)- Stratigraphy of deformed Permian carbonate reefs in the Saraburi Province, Thailand. In: Proc. 4th Int. Symposium Int. Geosciences Program (IGCP) Project 589, Bangkok 2015, p. 14-16. *(Extended Abstract*
(online at: http://igcp589.cags.ac.cn/4th%20Symposium/Abstract%20volume.pdf))
(E-M Permian (Asselian-Capitanian) Khao Khwang carbonate platform with minor clastic sediments with well-bedded platform carbonates and massive reef complexes. After deposition platform deformed into Khao Khwang fold-thrust belt in Triassic-Lower Jurassic Indosinian Orogeny along S margin of Indochina Block)

Dew, R.E.C., R. King, A.S. Collins, C.K. Morley, F. Arboit & S. Glorie (2017)- Stratigraphy of deformed Permian carbonate reefs in Saraburi Province, Thailand. J. Geol. Soc., London, 175, 1, p. 163-175.
(Km-scale thrusts affect sedimentary of Khao Khwang Platform in C Thailand (W margin of Indochina Terrane). Platform three Permian carbonate-dominated units, intercalated with clastics. Paleogeography of area prior to Triassic Indosinian Orogeny poorly known. In Saraburi area several separate carbonate platforms dominated by four major M Permian facies, dated with foraminifera (incl. verbeekinid and neoschwagerinid fusulinids) and algae)

Dheeradilok, P. & W. Kaewyana (1986)- On the Quaternary deposits of Thailand. In: Proc. GEOSEA V, 1, Bull. Geol. Soc. Malaysia 19, p. 515-532.
(online at: www.gsm.org.my/products/702001-101242-PDF.pdf)

Diehl, P. & H. Kern (1981)- Geology, mineralogy, and geochemistry of some carbonate-hosted lead-zinc deposits in Kanchanaburi Province, western Thailand. Economic Geology 76, 8, p. 2128-2146.
(Pb-Zn deposits in W mountain chains of Kanchanaburi Province, W Thailand. Sulfide mineralization stratabound and related to reef-like algal crinoidal buildups in thick Ordovician limestone sequence. Mainly fne-grained galena-sphalerite-pyrite. Homogenization temperatures of fluid inclusions 107-174 °C. Origin of metal-bearing solutions is uncertain, possibly nearby igneous source)

Diemar, M.G. & V.A. Diemar (2000)- Geology of the Chatree epithermal gold deposits, Thailand. In: G. Weber (ed.) Proc. PACRIM '99 Congress, Bali, Australasian Inst. of Mining and Metallurgy (AusIMM), Publ. 4-99, p. 227-231.

Ducrocq, S. (1992)- Etude biochronologique des bassins continentaux Tertiaires du sud-est Asiatique. Thesis University Montpellier II, p. 1-354.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1992/283.pdf)
('Biochronologic study of the continental basins of SE Asia'. Diverse mammal-reptile faunas from ~500m thick continental Upper Eocene of Krabi Basin of Peninsular Thailand and faunas of Neogene basins from NW Thailand)

Ducrocq, S. (1998)- Eocene primates from Thailand: are Asian anthropoideans related to African ones? Evolutionary Anthropology 7, 3, p. 97-104.
(Suborder Anthropoidea (simians, simiiforms) contains New and Old World monkeys, apes and humans. Recent discovery of Eocene early primate remains allows better understanding of early evolutionary history of group of mammals from which we evolved)

Ducrocq, S., Y. Chaimanee, J.J. Jaeger & G. Metais (2006)- A new ceratomorph (Perissodactyla, Mammalia) from the Late Eocene of Southeast Asia. J. Vertebrate Paleontology 26, 4, p. 1024-1027.
(New ceratomorph (small rhinocerotoid) maxilla from Late Eocene in Wai Lek lignite pit near Krabi, Associated with diverse mammal fauna of >30 species)

Ducrocq, S., Y. Chaimanee, V. Suteethorn & J.J. Jaeger (1994)- Mammalian faunas and the ages of the continental Tertiary basins of Thailand. In: P. Angsuwathana et al. (eds.) Proc. Int. Symposium Stratigraphic correlation of Southeast Asia, Bangkok 1994, Dept. Mineral Resources and IGCP 306, p. 147. *(Abstract only)*
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_3/2537/30265.pdf)
(Micromammals have higher biostratigraphic resolution than large mammals. Northern rift basins (Lampang, Pong) of M Miocene age (17-14 Ma). Krabi Basin in Peninsular Thailand Late Eocene age. Vegetation of M Miocenein N Thailand already in monsoon climate with distinct dry season)

Ducrocq, S., Y. Chaimanee, V. Suteethorn & J.J. Jaeger (1997)- A new species of *Conohyus* (Suidae, Mammalia) from the Miocene of northern Thailand. Neues Jahrbuch Geol. Palaont., Monatshefte 6, p. 348-360

Ducrocq, S., Y. Chaimanee, V. Suteethorn & J.J. Jaeger (1997)- First discovery of Helohyidae (Artiodactyla, Mammalia) in the Late Eocene of Thailand: a possible transitional form of Anthracotheriidae. Comptes Rendus Academie Sciences, Paris, Ser. 2A, Science Terre Planetes, 325, p. 367-372.
(Dental remains of earliest known helohyid artiodactyl from Late Eocene of Krabi, S Thailand (Progenitohyus thailandicus. Strong affinities with primitive anthracotheriid Siamotherium krabiense from Krabi)

Fanka, A., T. Tsunogae, V. Daorerk, Y. Tsutsumi, Y. Takamura & C. Sutthirat (2018)- Petrochemistry and zircon U-Pb geochronology of granitic rocks in the Wang Nam Khiao area, Nakhon Ratchasima, Thailand: implications for petrogenesis and tectonic setting. J. Asian Earth Sci. 157, p. 92-118.
(Wang Nam Khiao area, NE Thailand, with Carboniferous biotite granite (zircon U-Pb ages ~315-285 Ma), Late Permian hornblende granite (2453.4 Ma) and Triassic biotite-hornblende granite (238 Ma). All part of Eastern Granite Belt and implying multiple episodes of arc-magmatism formed by Paleo-Tethys subduction beneath Indochina Terrane)

Fenton, C.H., P. Charusiri, C. Hinthong, A. Lumjuan & B. Mangkonkarn (1997)- Late Quaternary faulting in northern Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution in Southeast Asia and the South Pacific, Bangkok, 1, p. 436-452.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1997/7646.pdf)
(N Thailand is intraplate Basin and Range province, with N-S trending grabens and half-grabens, developed in E-W oriented extensional stress regime initiated in Oligocene, with main phase of extension in Late Miocene- E Pliocene. Result of India- Eurasia collision and subsequent E-ward extrusion and rotation of S China and SE Asia along large strike-slip fault systems. Still some Quaternary activity on basin-bounding faults)

Ferrari, O.M. (2007)- Contribution to the geology of Thailand and implications for the geodynamic evolution of Southeast Asia. Doctoral Thesis, University of Lausanne, Lausanne, p. 1-179. *(Unpublished)*
(Study of Nan-Uttaradit suture and Chiang Mai Volcanic Belt. Proposes new location for Palaeotethys suture and new plate tectonic model of SE Asia, implying existence of new Orang Laut terranes (E Vietnam, W Sumatra, Kalimantan, Palawan, Taiwan) and redefined Shan-Thai terrane. Shan-Thai previously viewed as Cimmerian (when Nan-Uttaradit suture thought to be Paleotethys suture), but detached from Indochina with E Permian opening of Nan basin, which closed in M Triassic)

Fontaine, H. & V. Suteethorn (1988)- Discovery of widespread Bashkirian limestone northeast of Loei. In: T. Silakul (ed.) Proc. Annual Techn. Mtg. Dept. Geological Sciences, Chiang Mai University, Special Publ. 8, p. 199-206.

Foopatthanakamol, A., B. Ratanasthien, H.I. Petersen, P. Wongpornchai & W. Utamo (2008)- Composition and petroleum potential of lake facies in the FA-MS-48-73 well, Mae Soon structure, Fang oilfield, northern Thailand. J. Petroleum Geol. 31, 3, p 317-326.
(Fang Basin Cenozoic rift structure in N Thailand. Fang oilfield includes Mae Soon anticline with well FAMS-48-73, with multiple oil-filled sandstone reservoirs. Organic petrography, etc., shows Type II and III kerogen, consisting mainly of telalginite (Botryococcus-type), lamalginite, etc., suggesting freshwater lacustrine environment. Vitrinite Reflectance values ~0.38- 0.66% Ro, thermally immature for petroleum generation)

Fukuchi, A., B. Ratanasthien, S. Tanaka, S. Nagaoka & S. Suzuki (2007)- Stratigraphy and sedimentary environment of late Middle‒early Late Miocene Chiang Muan Formation, Phayao Province, Thailand. Nature and Human Activities 11, p. 1-15.
(online at: www.hitohaku.jp/publication/r-bulletin/KiyouE_No11_1-1.pdf)
(Late M- early Late Miocene fluvial Chiang Muan Fm in Chiang Muan Basin of N Thailand ~300m thick and subdivided into five members, incl. two lignite members two mammalian fossil-bearing horizons)

Gabel, J. (1991)- Die marine Trias in Nordthailand: Sedimentation in expandierenden Halbgraben. Ph.D. Thesis, Universitat Gorringen, p. 1-99.
('The marine Triassic in North Thailand: sedimentation in expanding half-grabens')

Gibling, M.R., C. Tantisukrit, W. Uttamo, T. Thanasuthipitak & M. Haraluck (1985)- Oil shale sedimentology and geochemistry in Cenozoic Mae Sot Basin, Thailand. American Assoc. Petrol. Geol. (AAPG) Bull. 69, 5, p. 767-780.
(Intermontane Mae Sot basin, NW Thailand, with carbonate-rich oil shales. Laminated deposits with fish and plant fragments as main megafossils. Mappable oil shale sequences 10m thick, interstratified with marl-sandstone sequences 70m thick. Oil shales formed in perennial stratified lakes. Episodic deposition of oil shales reflects changes in lake level, probably due to climatic fluctuations on 24- 46kyr scale)

Ginsburg, L. (1983)- The land vertebrates and plants of the Tertiary of Northern Thailand : stratigraphic and tectonic implication. In: Conf. Geology and Mineral Resources of Thailand, Bangkok, p. 198-201.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1983/10571.pdf)
(Tertiary lignites of N Thailand (Khon Khaen area) two groups: Li Gp and Mae Moh Gp. Both groups associated with mammal fossils and both appear to be of Late Miocene age)

Ginsburg, L., R. Ingavat & P. Tassy (1983)- *Siamogale thailandica*, un nouveau Mustelidae (Carnivora, Mammalia) neogene du Sud-Est asiatiique. Bull. Soc. Geologique France, 25, 6, p. 953-956.
(New otter species from M-L Miocene of Mae Moh lignite mine, N Thailand)

Gocht, W. & C. Strobel (1982)- Classification of tin-bearing pegmatites in Phuket, Thailand. In: T. Thanasuthipak (ed.) Proc. Ann. Technical Meeting, Dept. Geol. Sci., Chiang Mai University, Spec. Publ. 4, p. 143-153.
(Kathu Valley on Phuket Island two types of tin-bearing pegmatites: Sn-Ta pegmatites (or albite-muscovite pegmatites) and Sn- Rare earth element (REE) pegmatities (or orthoclase-lepidolite pegmatites). Pegmatites intruded into Late Paleozoic (meta-) sediments of Phuket Group. Sn-Ta pegmatites in areas close to granite body; more complex Sn-REE pegmatites located further (2-4 km) from source granite)

Grote P. (2007)- Studies of fruits and seeds from the Pleistocene of northeastern Thailand. Courier Forschungsinstitut Senckenberg 258, p. 171-181.
(Middle (or Early?) Pleistocene fluvial deposits in Nakhon Ratchasiam provonce with plant remains(endocarp and dipterocarp fruits, seeds, leaves, wood, tubers, amber, pollen), suggestive of tropical mixed deciduous and dry evergreen forests. Also vertebrate fossils of fish, turtles, gavials, bovids, deer, Stegodon and hyena)

Haile, N.S. & D.H. Tarling (1973)- Note on the reversed magnetism of young Cainozoic basalts near Lampang, Northern hailand. In: Proc. Conf. Geology of Thailand, Chiang Mai University Spec. Publ. 1, 2, p. 66-73.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1975/7390.pdf)
(Reverse magnetic polarity near base of Pleistocene Lampang basalts (see also Barr et al. 1976))

Hansen, B.T., K. Wemmer, M. Eckhardt, P. Putthapiban & S. Assavapatchara (2016)- Isotope dating of the potash and rock salt deposit at Bamnet Narong, NE Thailand. Open J. of Geology 6, p. 875-894
(online at: https://goedoc.uni-goettingen.de/handle/1/14086)
(Age determination of Cretaceous evaporite (halite, anhydrite) of Maha Sarakham Fm in samples from Bamnet Narong Asian Potash Mine, at W edge of Khorat Plateau/ Basin. Multiple isotopic approaches (K/Ar, K/Ca and Sr) suggest depositional age from ~93 Ma to <76 Ma (Cenomanian- Campanian), in agreement with Aptian-Albian ages from vertebrate fossils from underlying non-marine Khok Kruat Fm)

Hansberry, R.L., A.S. Collins, R.C. King, C.K. Morley, A.P. Gize, J. Warren, S.C. Loehr & P.A. Hall (2015)- Syn-deformation temperature and fossil fluid pathways along an exhumed detachment zone, Khao Khwang fold-thrust belt, Thailand. Tectonophysics 655, p. 73-87.
(Upper-level detachment zone in exhumed Khao Khwang fold-thrust belt of C Thailand, with illite crystallinity indicating deep diagenetic to low anchizonal conditions, and T of ~160-210 °C in shale detachment, interpreted as peak metamorphic conditions during Triassic Indosinian Orogeny. Positive association between organic carbon content in the shales and spacing and complexity of deformational structures)

Hanta, R., B. Ratanasthien, Y. Kunimatsu, H. Saegusa, H. Nakaya & P. Chintasakul (2005)- Description of the Tha Chang *Merycopotamus* and its preserved condition. In: L. Wannakao et al. (eds.) Proc. Int. Conf. Geology, Geotechnology and Mineral Resources of Indochina (GEOINDO 2005), Khon Kaen, p. 600-605.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2005/9383.pdf)
(Well-preserved anthracothere skull from sandpit in NE Thailand assigned to Merycopotamus. Related to Late Miocene M. medioximus from Pakistan)

Hanta, R., B. Ratanasthien, Y. Kunimatsu, H. Saegusa, H. Nakaya & P. Jintasakul (2008)- A new species of Bothriodontinae, *Merycopotamus thachangensis* (Cetartiodactyla, Anthracotheriidae) from the Late Miocene of Nakhon Ratchasima, northeastern Thailand. J. Vertebrate Paleontology 28, 4, p. 1182-1188.
(online at: http://www.khoratgeopark.com/kgp/researchs/2008_Hanta%20et%20al.pdf)
(Merycopotamus thachangensis n.sp.(Cetartiodactyla, Anthracotheriidae) from sand pit in Tha Chang. Nearly complete cranium of first known Merycopotamus in Thailand. Mixture of derived and primitive features, most likely Late Miocene age, possibly late late Miocene)

Hara, H., M. Kunii, Y. Miyake, K. Hisada, Y. Kamata, K. Ueno, Y. Kon, T. Kurihara, H. Ueda, S. Assavapatchara, A. Treerotchananon, T. Charoentitirat & P. Charusiri (2017)- Sandstone provenance and U-Pb ages of detrital zircons from Permian-Triassic forearc sediments within the Sukhothai Arc, northern Thailand: record of volcanic-arc evolution in response to Paleo-Tethys subduction. J. Asian Earth Sci. 146, p. 30-55.
(Provenance analysis and U-Pb dating of detrital zircons in Permian-Triassic forearc sediments from Sukhothai Arc in N Thailand clarify evolution of missing arc system associated with Paleo-Tethys subduction. Turbidite-dominated forearc sediments include Permian- Late Triassic formations. Initial Sukhothai Arc (Late Carboniferous- E Permian) developed as continental island arc. Magmatic quiescence in M- early Late Permian. Latest Permian- early Late Triassic Sukhothai Arc activity with E-M Triassic I-type granites, evolution of accretionary complex, and abundant supply of volcanic sediments to trench through forearc basin. Sukhothai Arc became quiescent as Paleo-Tethys closed after Late Triassic)

Heggemann, H., K.W. Tietze & D. Helmcke (2003)- The river system of the Phra Wihan Formation, Thailand. In: Festschrift Behr, Gottinger Arbeiten Geologie Palaeontologie, Sonderband SB5, p. 23-32.
(online at: www.geomuseum.uni-goettingen.de/museum/publications/images/GAGP/...)
(Fluvial sedimentology of quartzitic sandstones of ~700m thick E Cretaceous Pra Wihan Fm, in middle part of Khorat Gp, Khorat Basin. General evolution from bed-load (braided) streams tor mixed-load (meandering), to

suspended-load (meandering to anatomising) rivers. Paleocurrent measurements suggest source rock areas to N and NE of Khorat Basin. Petrified tree fragments (Dadoxylon (Araucarioxylon)) in channel-lag deposits)

Hisada, K., S. Arai, K. Ueno, Y. Kamata, H. Hara,T. Charoentitirat, P. Charusiri & H. Chanthavongsa (2016)- Ultramafic rocks of Nan Suture Zone in northern Thailand and its northward extension in Laos. In: Development of the Asian Tethyan Realm: genesis, process and outcomes, 5th Int. Symposium Int. Geoscience Program (IGCP) Project 589, Yangon, p. 65. *(Abstract)*
(online at: http://igcp589.cags.ac.cn/5th%20Symposium/Abstract%20Volume.pdf)
(Nan Suture Zone was regarded as site of collision of Shan Thai (Sibumasu) and Indochina continents, but more recently accepted as oceanic materials in suture zone representinf floor of marginal basin (Nan backarc basin) N extension of Nan SZ recently confirmed near Pakbeng, N Laos (serpentinites, metamorphics). Ultramafic rocks derived from supra-subduction zone)

Howard, K.T., P.W. Haines, C.F. Burrett, J.R. Ali & S. Bunopas (2003)- Sedimentology of 0.8 Ma log-bearing flood deposits in northeast Thailand and mechanisms for pre-flood deforestation. Proc. 8th Int. Congress on Pacific Neogene Stratigraphy, ChiangMai, p. 49-67.

Igo, H. (1998)- Some Carboniferous rugose corals from northeast Thailand. Bull. Nat. Science Museum, Tokyo, Ser. C 24, 3-4, p. 151-162.
(online at: http://ci.nii.ac.jp/naid/110004313609/en)
(U Carboniferous limestones exposed in Loei-Wang Saphung area, NE Thailand, with many rugose corals, most of them described by Fontaine et al. (1991) and strikingly similar to S China Block)

Imai, A., K. Yonezu, K. Sanematsu, T. Ikuno, S. Ishida, K. Watanabe, V. Pisutha-Arnond, S. Nakapadungrat & J. Boosayasak (2013)- Rare Earth Elements in hydrothermally altered granitic rocks in the Ranong and Takua Pa Tin-Field, Southern Thailand. Resource Geol 63, 1, p. 84-98.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1751-3928.2012.00212.x/epdf)
(EREE and HREE content in some altered granitic rocks associated with hydrothermal Sn mineralization in Takua Pa tin-field in W Belt of S Thailand higher original fresh granitic rocks.)

Imsamut, S. (2003)- Marine Paleozoic stratigraphy of the Betong- Than-To area, Yala Province, Peninsular Thailand. Dept. Mineral Resources, Bangkok, Techn. Report BGS 25/2003, p. 1-49.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/2003/10556.pdf)
(Folded 'Sibumasu' Paleozoic stratigraphy of N Peninsular Thailand: (1) Silurian Devonian Betong Fm clastics >100m thick with minor chert and limestones with Tentaculites, graptolites, trilobites, brachiopods, etc.; (2) 800m of E Carboniferous Yaha Fm shales and thin-bedded chert with radiolaria and conodonts; (3) 500m of Sri Paen Fm with bivalves, brachiopods and ribbon chert with Carboniferous radiolaria; (4) E Permian recrystallized crinoid limestones of Tham Krachaeng Fm with fusulinids. Intruded by Triassic biotite granites)

Imsamut, S. (2012)- Lithostratigraphy of the Khuan Klang Formation, Satun Province, Peninsular Thailand. 12th Regional Congress on Geology, Mineral and Energy Resources of Southeast Asia (GEOSEA 2012), p. 95-112.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2555/34880.pdf)
(E Carboniferous Khuan Klang Fm in S Thailand 200-250m thick clastics with Posidonomiya sp., trilobites, brachiopods, etc.)

Imsamut, S., S. Bunopas, V. Daorerk, M. Pattarametha, S. Maranata, V. Thotosawam & P. Charusiri (1994)- Magnetostratigraphy of Phu Thok Mesozoic deposit NE Thailand: preliminary investigation. In: P. Angsuwathana et al. (eds.) Proc. Int. Symp. Stratigraphic correlation of Southeast Asia, IGCP 306, Bangkok 1994, Dept. Mineral Res., p. 170-182.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1994/6947.pdf)
(Palleomagnetic succession of Phu Tok Fm redbeds of Khorat Gp with 7 normal and 7 reverse periods. Tied to Late Jurassic- E Cretaceous)

Imsamut, S., P. Charusiri, Z. Zhuang & V. Daorerk (1995)- Paleomagnetic result of Phu Thok red beds of NE Thailand : implication for Mesozoic tectonic history of SE Asia. Proc. Int. Conf. Geology geotechnology and mineral resources of Indochina, Khon Koen, p. 73-78.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1995/7421.pdf)
(Paleomagnetic study of Phu Tok Fm continental red beds of Khorat Gp of Indochina Block in NE Thailand suggest Cretaceous age. paleolatitude of 20-30°N and CW rotation during M Cretaceous)

Imsamut, S., P. Charusiri & V. Daorerk (1993)- On the stratigraphy of Ban Rai area, Changwat Uthai Thani: implication for tectonic history. In: T. Thanasuthipitak (ed.) Int. Symposium Biostratigraphy of mainland Southeast Asia: facies and palaeontology (BIOSEA), Chiang Mai, 1, p. 187-201.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1993/6787.pdf)
(Paleozoic (meta-)sediments of W Thailand five Cambrian- Permian units (= Shan Thai/ Sibumasu passive margin series))

Ingavat, R. & P. Janvier (1981)- Bradyodont (Chondrichthyes) teeth from the Permian and Carboniferous of Northern Thailand. Geobios 14, 5, p. 651-653.
(Psammodontid fish tooth fragment in a massive Visean limestone in Ban Pak Chom area of Thailand. Tooth referred to Deltodus sp., associated with teeth of 'Cladodus type, in Lower Permian limestone at Ban Na Chareon (E of Loei)).

Ingavat, R. & P. Janvier (1981)- *Cyclotosaurus* cf. *posthumus* Fraas (Capitosauridae, Stereospondyli) from the Huai Hin Lat Formation (Upper Triassic), Northeastern Thailand; with a note on capitosaurid biogeography. Geobios 14, 6, p. 711-725.
(Part of large amphibian capitosaurid skull, similar to Cyclotosaurus posthumus from U Triassic of Germany in U Huai Hin Lat Fm (basal part of Khorat Gp) near Chulabhorn Dam, consistent with presumed Norian age of formation. Supports hypothesis that this part of SE Asia was linked to Laurasia by Late Triassic)

Ingavat, R., P. Janvier & P. Taquet (1978)- Decouverte en Thailande d'une portion de femur de Dinosaure sauropode (Saurischia, Reptilia). Comptes Rendus somm. Soc. Geologique France 1978, 3, p. 140-141.
('Discovery in Thailand of a part of a sauropod dinosaur femur (Saurischia, Reptilia'. Discovery of Cretaceous dinosaur bone in Phetchabun region is first dinosaur remain found in Thailand)

Ingavat, R. & P. Taquet (1978)- First discovery of dinosaur remain in Thailand. J. Geol. Soc. Thailand 3, 1, p. 1-6.
(see also Ingavat, Janvier & Taquet 1978)

Intasopa, S.B. (1993)- Petrology and geochronology of the volcanic rocks of the Central Thailand Volcanic Belt. Ph.D. Thesis University of New Brunswick, Fredericton, p. 1-242.

Intasopa, S., T. Dunn & R.S.J. Lambert (2011)- Geochemistry of Cenozoic basaltic and silicic magmas in the central portion of the Loei-Phetchabun volcanic belt, Lop Buri, Thailand. Canadian J. Earth Sciences 32, 4, p. 393-409.
(Cenozoic volcanic rocks in central Loei-Phetchabun volcanic belt in C Thailand. Composition ranging from basalt to high-silica rhyolite. Decrease in age from S to N: oldest rocks 55–57 Ma rhyolites; younger rhyolites that occur farther N (13–24 Ma). Depleted mantle source)

Ishibashi, T., M. Fujikawa & N. Nakornsri (1997)- Biostratigraphy of Carboniferous and Permian ammonoids in Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, p. 403-411.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1997/7621.pdf)

Ishihara, S., H. Hirano & T. Moriyama (2009) Constituent minerals and REE contents of the granite and Sn skarn ores from the Pin Yok mine, southern Thailand. Bull. Geol. Survey Japan 60, 11/12, p. 581-591.
(in Japanese; online at: https://www.gsj.jp/data/bulletin/60_11_04.pdf)

Ishihara, S., T. Moriyama & H. Hirano (2008)- REE-rich granites of Ko Samui, Ko Phuket and Yod Nam mine in the Southern Thailand. Proc. Int. Symposia on Geoscience resources and environments of Asian terranes (GREAT 2008), 4th IGCP 516 and 5th APSEG, p. 238-247.
(online at:

Jungyusuk, N. & T. Sirinawin (1983)- Cenozoic basalts of Thailand. Conf. Geology Mineral Resources of Thailand, Bangkok, 9 p.

Kamata, Y., K. Ueno, M. Fujikawa, H. Hara, K. Hisada, K. Uno, T. Charoentitirat & P. Charusiri (2005)- Siliceous sedimentary rocks distributed in the Loei area, northeastern Thailand, lithological description and geological ages. In: L. Wannakoe et al. (eds.) Proc. Int. Conf. Geology, geotechnology and mineral resources of Indochina (GEOINDO 2005), Khon Kaen, p. 417-420.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2005/9358.pdf)
(Paleozoic cherts and siliceous shales from 'Loei-Petchabun flodbelt', also viewed as Loei suture zone that was Paleotethys suture at E margin of Indochina Block. With black cherts with Late Devonian- E Carboniferous radiolarians. Also thin-bedded Permian shales with radiolaria and calcareous microfossils, deposited closer to continental margin)

Kamata, Y., K. Ueno, A. Miyahigashi, H. Hara, K.I. Hisada, T. Charoentitirat & P. Charusiri (2016)- Geological significance of the discovery of Middle Triassic (Ladinian) radiolarians from the Hong Hoi Formation of the Lampang Group, Sukhothai Zone, northern Thailand. Revue Micropaleontologie 59, 4, p. 347-358.
(Newly found Ladinian (M Triassic) radiolarians from Hong Hoi Fm of Lampang Group, Sukhothai Zone, N Thailand. Concords with age previously determined by molluscs. Radiolarian-bearing siliceous beds intercalated with volcanics-rich lithic sandstone -shale in lower part of lower Hong Hoi Fm. Probably deposited in forearc basin close to Sukhothai Arc, during time of intensive volcanic activity)

Ketmuangmoon, P., A. Chitnarin, M.B. Forel & P. Tepnarong (2018)- Diversity and paleoenvironmental significance of Middle Triassic ostracods (Crustacea) from northern Thailand: Pha Kan Formation (Anisian, Lampang Group). Revue Micropaleontologie 61, 1, p. 3-22.
(online at: https://www.sciencedirect.com/science/article/pii/S0035159817300727)
(Pha Kan Fm of Lampang Gp S of Lampang city, N Thailand, with 29 species of ostracods (4 new), dominated by Bairdiidae. First report of M Triassic (Anisian) ostracods from Sukhothai terrane)

Khamloet, P., V. Pisutha-Arnond & C. Sutthirat (2014)- Mineral inclusions in sapphire from the basalt-related deposit in Bo Phloi, Kanchanaburi, western Thailand; indication of their genesis. Russian Geol. Geophysics 55, 9, p. 1087-1102.
(Bo Phloi gem field in Kanchanaburi Province, W Thailand, closely associated with Cenozoic basalts. Blue and yellow sapphire, black spinel, and minor zircon mined for >3 decades.Most sapphires crystallized from high-alkali felsic melt, probably in lower crust)

Khositanont, S., K. Zaw, S. Meffre, Y. Panjasawatwong, P. Ounchanum & T. Thanasuthipitak (2013)- Geotectonic and geochronology of volcano-plutonic rocks in the Loei-Phetchabun fold belt. In: C. Senebouttalath et al. (eds.) Proc. 2nd Lao-Tai Conf. Geology and Mineral resources, Vientiane, p. 81-95.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/2013/36771.pdf)
(Late Permian- E Triassic volcanic-plutonic rocks in Loei-Phetchabun Fold Belt three types: basic volcanics, intermediate volcanics and intermediate-acid plutonic rocks. Formed in mid oceanic and subduction-related volcanic arc environments. Jurassic red beds of Khorat Gp show Tethys sea closed before Jurassic)

Khummongkol, D. & A. Suwannathong (2007)- Aspect of oil shale in Thailand. In: In: W. Tantiwanit (ed.) Int. Conf. on Geology of Thailand: Towards sustainable development and sufficiency economy (GEOTHAIô07), Bangkok, Dept. Mineral Resources, p. 399-403.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2007/12755.pdf)

(Largest oil shale reserves in Thailand in M-U Miocene of Mae Sot Fm in Mae Sot Basin in NW Thailand. Measured reserves ~952 Mtons and oil yield is 183 million barrels)

Kromkhun, K., G. Baines, P. Satarugsa & J. Foden (2013)- Petrochemistry of volcanic and plutonic rocks in Loei Province, Loei-Petchabun fold belt, Thailand. In: 2nd Int. Conf. Geological and environmental sciences, IPCBEE vol.52, Singapore, p. 55-59.
(online at: www.ipcbee.com/vol52/011-ICGES2013-G041.pdf)
(Permo-Triassic intermediate volcanic-plutonic rocks of Loei-Phetchabun foldbelt in Amphoe Wang Sa Phung and Maung areas, Loei Province, have calc-alkaline affinities and indicate magmatism at E-dipping subduction zone, where former ocean between Indochina-Sibumasu blocks subducted beneath Indochina block. Subduction active from at least 244-230 Ma (Middle- early Late Truassic). Subduction-derived melts probably contaminated by overlying continental crust)

Kobayashi, T. & T. Hamada (1968)- A Devonian phacopid recently discovered by Mr. Charan Poothai in peninsular Thailand. In: T. Kobayashi (ed.) Geology and palaeontology of Southeast Asia, University of Tokyo Press, 4, p. 22-28.
(Trilobite Plagiolaria in E-M Devonian Tentaculites Shale of Peninsular Thailand. Associated with Monograptus spp.)

Kosuwan, S. & P. Charusiri (1997)- Structure geology of the Khanom gneissic complex, Nakhon Si Thamamarat Province, southern Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 2, p. 727-739.

Kozu, S., A. Sardsud, D. Saesaengseerung, C. Pothichaiya, S. Agematsu & K. Sashida (2017)- Dinosaur footprint assemblage from the Lower Cretaceous Khok Kruat Formation, Khorat Group, northeastern Thailand. Geoscience Frontiers 8, 6, p. 1479-1493.
(online at: www.sciencedirect.com/science/article/pii/S1674987117300324
(Khok Kruat Fm in U Khorat Gp, with many Aptian-Albian dinosaur footprints at Huai Dam Chum near Laos border. ~600 tracks in thin mudstone layer of small theropods and crocodylomorphs. Most footprint of cf. Asianopodus, and imprinted by small theropoda)

Krobicki, M., A. Meesook & W. Yathakum (2013)- Early Jurassic marine molasse-type conglomerates (Mae Sot area, northern Thailand)- its sedimentological features and geotectonic significance. In: C. Senebouttalath et al. (eds.) Proc. 2nd Lao-Tai Conf. Geology and Mineral resources, Vientiane, p. 70-71. *(Abstract and Presentation)*
(online at: www.dmr.go.th/download/lao_thai56/pdf_dat/Early%20Jurassic%20marine%20.pdf)

Kruse, P. (1989)- A Thai receptaculitalean. Alcheringa (Australasian J. Palaeontology) 13, 2, p. 141-144.
(Fragmentary silicified receptaculitalean material from E-M Ordovician Tha Manao Formation at Khao Tham, W- C Thailand (= Sibumasu terrane). Described as ?Fisherites sp., possibly related to Fischerites burmensis from C Myanmar (Rietschel & Nitecki 1984). One of few SE Asian records of this order)

Kuroda, J., H. Hara, K. Ueno, T. Charoentitirat, T. Maruoka, T. Miyazaki, A. Miyahigashi & S. Lugli (2017)- Characterization of sulfate mineral deposits in central Thailand. Island Arc 26, 2, e12175, p.
(Layered anhydrite and massive gypsum in NE Nakhon Sawan, C Thailand, likely precipitated from Carboniferous sea water (~ 326 Ma). Intruded by andesitic dikes with M Triassic zircons (~ 240 Ma))

Laojumpon, C., U. Deesri , S. Khamha, A. Wattanapituksakul, K. Lauprasert, S. Suteethorn & V. Suteethorn (2014)- New vertebrate-bearing localities in the Triassic of Thailand. J. Science Technol. Mahasarakham University (MSU) 33, 4, p. 335
(online at: http://research.msu.ac.th/msu_journal/upload/journal_file/jfile_no34_44342.pdf)
(Three new vertebrate localities in Late Triassic Huai Hin Lat Fm, N Thailand. With coprolites, hybodont shark, bony fish remains, phytosaur tooth and temnospondyl fragments)

Laojumpon, C., V. Suteethorn, P. Chanthasit, K. Lauprasert & S. Suteethorn (2017)- New evidence of sauropod dinosaurs from the Early Jurassic period of Thailand. Acta Geologica Sinica (English Ed.) 91, 4, p. 1169-1178.
(Oldest dinosaur assemblages of Thailand in Nam Phong Fm continental sediments. With Isanosaurus attavipatchi and other species of basal sauropods. Age more likely E Jurassic than Triassic)

Lawwongngam, K. (1990)- Geochemical characterization of crude oils from Sirikit Oilfield, Phitsanulok Basin. Thesis Chulalongkorn University, Bangkok, p. 1-220.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1990/4586.pdf)

Lawwongngam, K. & R.P. Philp (1993)- Geochemical characteristics of oils from the Sirikit Oilfield, Phisanulok Basin, Thailand. Chemical Geology 93, p. 129-146.
(12 oils from Sirikit field of onshore Phisanulok Basin suggest all oils derived from mixture of bacterial, algal and higher plant material. Sterane contents relatively low and sterane ratios suggest oils relatively immature. Extensive strike-slip faults in basin may have led to rapid burial of sediments)

Lawwongngam, K., R.P. Philp & S. Tantayanon (1990)- Geochemical characterization of crude oils from Sirikit Oilfield, Phitsanulok Basin. In: Development geology for Thailand into the Year 2000, Chulangkorn University, Bangkok, p. 377-407.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1990/24728.pdf)
(similar to Lawwongngam & Philp, 1993)

Lazar, S. (2012)- Sedimentology and depositional history of the Pha Nok Khao platform in the Loei-Phetchabun fold belt, Northeast Thailand. M.Sc. Thesis University of Western Australia, Pert, p. 1-188.
(online at: http://research-repository.uwa.edu.au/files/3245697/Lazar_Shachar_2012.pdf)
(U Carboniferous- Permian Pha Nok Khao platform outcrops in N Loei-Phetchabun foldbelt and is outcrop analogue for coeval gas fields in nearby Khorat plateau. Part of Indochina Terrane)

Lei, Z.Q. (1993)- The discovery and significance of the Late Jurassic sporopollen assemblage in Peninsular Thailand (Phrae and Nan Provinces). In: T. Thanasuthipitak (ed.) Int. Symposium Biostratigraphy of mainland Southeast Asia: facies and paleontology, (BIOSEA), Chiang Mai, University of Chiang Mai, 2, p. 361-380
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1993/7489.pdf)
(Abundant and diverse sporopollen assemblages from redbeds of SW Peninsular Thailand dominated by 21 species of Classopollis (86%) and Dicheiropollis (4.3%). Indicate arid climate and Late Jurassic age, similar to Late Jurassic of dry southern zone in China. Associated with 'Estheria' fauna of conchostracans Pseudograpta, Paleoleptestheria, etc. (Alderson et al. 1994 suggest more likely Early Cretaceous age))

Le Loeuff, J., S. Khansubha, E. Buffetaut, V. Suteethorn, H. Tong& C. Souillat (2002)- Dinosaur footprints from the Phra Wihan Formation (Early Cretaceous of Thailand). Comptes Rendus Palevol 1, 5, p. 287-292.
(First sauropod tracks in Thailand, in basal Cretaceous Phra Wihan Fm E of Khon Kaen, NE Thailand (Khorat Gp). Associated with theropod tracks)

Limtrakun, P., Y. Panjasawatwong & J. Khanmanee (2013)- Petrochemistry and origin of basalt breccia from Ban Sap Sawat area, Wichian Buri, Phetchabun, central Thailand. Songklanakarin J. Sci. Technol. 35, 4, p. 469-482.
(online at: http://rdo.psu.ac.th/sjstweb/journal/35-4/35-4-13.pdf)
(Miocene Wichian Buri basalts and basalt breccias in Loei-Phetchabun Volcanic Belt similar petrography and chemical compositions. Both formed from same continental within-plate, transitional tholeiitic magma)

Limtrakun, P., Khin Zaw, C.G. Ryan & T.P. Mernagh (2001)- Formation of the Denchai gem sapphires, northern Thailand: evidence from mineral chemistry and fluid/melt inclusion characteristics. Mineralogical Magazine 65, 6, p. 725-735.
(Denchai gem sapphire deposits in Phrae Province, N Thailand, closely associated with late Cenozoic high CO2/ high K alkaline basaltic rocks. Sapphires in alluvial placer deposits in paleo-channels at shallow depths)

Linnen, R.L. (1998)- Depth of emplacement, fluid provenance and metallogeny in granitic terranes: a comparison of western Thailand with other tin belts. Mineralium Deposita 33, p. 461-476.
(Tin mineralization may occur at shallow and deep levels of emplacement, but greater tendency for cassiterite-bearing pegmatites to form at depth)

Lockley M.G,. M. Matsukawa, Y. Sato (2006)- A distinctive new theropod dinosaur track from the Cretaceous of Thailand: Implications for theropod track diversity. Cretaceous Research 27, 1, p. 139-145.
(Well-preserved, three-toed dinosaur footprints with bilobed heel impressions from Cretaceous of Thailand are assigned to new ichnotaxon Siamopodus khaoyaiensis. Represent gracile theropods. Also theropod tracks with bulbous heel impressions from a new locality, similar to Lower Cretaceous tracks from elsewhere in Asia)

Loffler, E. & J. Kubiniot (1996)- Landform development and bioturbation on the Khorat Plateau, Northeast Thailand. Natural History Bull. Siam Society 44, p. 199-216.
(online at: www.thaiscience.info/Article%20for%20ThaiScience/Article/61/10001833.pdf)
(Khorat Plateau erosional surface developed in two main phases: (1) E Tertiary formation of extensive plain, with deep weathering under humid tropical conditions (red Yasothon ferralsols and gravels of 'upper terrace'); (2) Pliocene or E Pleistocene relief rejuvenation after tectonic uplift, dissecting and stripping much of weathered mantle, with development of yellow sandy xanthic ferralsols on new land surfaces under more seasonal climate. Modifying factor in landform/ soil development is post-depositional bioturbation by termites, capable of reworking a few m of soil profile in several 1000 yrs, transporting fine material upward and causing coarse material like tektites to move down profile like a lag deposit)

Maranate, S. (1982)- Palaeomagnetism of the Khorat Group in Northeast Thailand. M.Sc. Thesis Victoria University, Wellington, p. 1-398.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1982/4505.pdf)

Maranate, S. (1984)- Magnetostratigraphic correlation for dating in the Khorat Group Northeast Thailand. Proc. Conf. Applications of Geology and the National Development, Bangkok, p. 293-296.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1984/7249.pdf)

Maranate, S. (1984)- Palaeomagnetism of the Khorat Group in Northeast Thailand. Geological Survey Paper 3, p. 1-71.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1982/5292.pdf)
(Paleomag data from 179 sites in M Triassic- M Cretaceous Khorat Gp (54% of sites rejected). Paleolatitude not signicantly different from today (unlike nearby S China, whose Jurassic-Cretaceous paleolatitudes N of present-day?). Clockwise rotation of ~38° after Mid-Cretaceous))

Marivaux, L., M. Benammi, S. Ducrocq, J.J. Jaeger & Y. Chaimanee (2000)- A new baluchimyine rodent from the Late Eocene of the Krabi Basin (Thailand): palaeobiogeographic and biochronologic implications. Comptes Rendus Academie Sciences, Paris, ser, IIA, 331, 6, p. 427-433.
(New baluchimyine rodent, Baluchimys krabiense n. sp., from Bang Mark pit of Krabi mine (Late Eocene))

Marivaux, L., Y. Chaimanee, C. Yamee, P. Srisuk & J.J. Jaeger (2004)- Discovery of *Fallomus ladakhensis* Nanda & Sahni, 1998 (Mammalia, Rodentia, Diatomyidae) in the lignites of Nong Ya Plong (Phetchaburi Province, Thailand): systematic, biochronological and paleoenvironmental implications. Geodiversitas 26, 3, p. 493-507.
(online at: http://sciencepress.mnhn.fr/sites/default/files/articles/pdf/g2004n3a4.pdf)
(New finds of mandibles and isolated teeth of a diatomyid rodent Fallomus ladakhensis in Oligocene lignites of the Tertiary basin of Nong Ya Plong in C Thailand. Development of lophodont and moderately hypsodont teeth more likely in fairly arid environments.)

Martin, J.E. & K. Lauprasert (2010)- A new primitive alligatorine from the Eocene of Thailand: relevance of Asiatic members to the radiation of the group. Zoological J. Linnean Soc. 158, 3, p. 608-628.
(online at: https://academic.oup.com/zoolinnean/article/158/3/608/3798456)

(Remnants of new alligatorine taxon from Late Eocene of Krabi Basin, S Thailand: Krabisuchus siamogallicus. Alligatorines widespread as early as Late Eocene across N hemisphere. Probably colonized vast territories, during periods of global warm climates)

Martin, V. (1994)- Baby sauropods from the Sao Khua Formation (Lower Cretaceous) in northeastern Thailand. GAIA 10, p. 147-153.
(online at: www.arca.museus.ul.pt/ArcaSite/obj/gaia/MNHNL-0000270-MG-DOC-web.PDF)
(Remains of juvenile sauropods Phuwiangosaurus sirindhornae from E Cretaceous fluvial deposits)

Martin, M., E. Buffetaut, H. Tong & V. Suteethorn (1996)- New Jurassic dipnoans from Thailand. Geol. Soc. Denmark, DGF Online Series. 1,
(online at: http://2dgf.dk/dgf-online-series/new-jurassic-dipnoans-from-thailand/)
(Toothplates of freshwater dipnoans (lungfish) in Jurassic of S and NE Thailand assigned to Ferganaceratodus szechuanensis. Also known from S China Late Triassic- Jurassic)

Martin, V., E. Buffetaut & V. Suteethorn (1994)- A new genus of sauropod dinosaur from the Sao Khua Formation (Late Jurassic to Early Cretaceous) of northeastern Thailand. Comptes Rendus Acad. Sci. Paris (2) 319, p. 1085-1092.
(New sauropod Phuwiangosaurus sirindhornae from Phu Wiang)

Martin, V.& R. Ingavat (1982)- First record of an Upper Triassic Ceratodontid (Dipnoi, Ceratodontiformes) in Thailand and its paleogeographical significance. Geobios 15, 1, p. 111-114.
(First discovered Norian continental vertebrate locality of Thailand yielded minute toothplate of ceratodontid (lungfish). Probably Ceratodus cf. szechuanensi, previously recorded from U Triassic of China, providing evidence for land connection between Thailand and China as early as Late Triassic)

Martin, V., V. Suteethorn & E. Buffetaut (1999)- Description of the type and referred material of *Phuwiangosaurus sirindhornae* Martin, Buffetaut and Suteethorn 1994, a sauropod from the Lower Cretaceous of Thailand. Oryctos 2, p. 39-91.
(online at: http://www.dinosauria.org/documents/2003/oryctos_v2_99-p39-91.pdf)
(Most of the abundant sauropod material from E Cretaceous Sao Khua Fm from E Cretaceous of Khorat Plateau in NE Thailand referable to Phuwiangosaurus sirindhornae, a mid-sized sauropod different from Jurassic Chinese sauropods. Early representative of family Nemegtosauridae)

Mein, P. & L. Ginsburg (1997)- Les mammiferes du gisement Miocene inferieur de Li Mae Long, Thailande: systematique, biostratigraphie et paleoenvironment. Geodiversitas, 19, 4, p. 783-844.
('The mammals from the Lower Miocene beds of Li Mae Long, Thailand: systematics, biostratigraphy and paleoenvironment'. Mammal fauna of Li Mae Long (Lamphun district, Thailand) 33 species, 5 Insectivora , 9 bats, 1 Scandentia, 2 primates, 8 rodents, 2 carnivores, 1 proboscidean, 1 perissodactyl and 4 artiodactyls). Age is the beginning of MN4; environment tropical forest near very shallow lake)

Metcalfe, I., C.M. Henderson & K. Wakita (2017)- Lower Permian conodonts from Palaeo-Tethys Ocean Plate Stratigraphy in the Chiang Mai-Chiang Rai Suture Zone, northern Thailand. Gondwana Research 44, p. 54-66.
(Lower Permian (lower Sakmarian) conodonts from section of Ocean Plate Stratigraphy, and from limestone block in Paleo-Tethys suture zone S of Chiang Mai. Conodont species deep-water forms. Chiang Mai- Chiang Rai suture zone proposed for Paleo-Tethys suture in N Thailand between Sibumasu and Sukhothai Arc terranes. Inthanon Zone of N Thailand interpreted as fold-thrust belt W of suture, comprising Sibumasu Terrane continental margin rocks and remnant klippen of Chiang Mai- Chiang Rai suture zone rocks thrust as nappe W-ward during Triassic Sibumasu- Sukhothai Arc/Indochina Terrane collision)

Minezaki, T. & K.I. Hisada (2016)- The tectono-stratigraphy and the Upper Paleozoic petroleum systems of the Khorat Plateau Basin in onshore NE Thailand. In: Development of the Asian Tethyan Realm: genesis, process and outcomes, 5th Int. Symposium Int. Geoscience Program (IGCP) Project 589, Yangon, p. 7-11. *(Extended Abstract)*

(online at: http://igcp589.cags.ac.cn/5th%20Symposium/Abstract%20Volume.pdf)
(Khorat Plateau and surrounding NE Thailand underlain by Permian carbonates, which host two commercial gas fields. Intense deformation of Carboniferous- Permian sections below Indosinian I Event, which may be caused by closure of back-arc basin between Sukhothai arc and Indochina terrane at end of Permian along Nan-Uttaradit suture, before (Triassic) collision between Sibumasu block and Indochina)

Miyahigashi, A., K. Ueno & T. Charoentitirat & Y. Kamata (2014)- Foraminiferal fauna and depositional environment of the Lower Permian Kiu Lom Formation in the Sukhothai Zone, Northern Thailand. In: Development of the Asian Tethyan Realm, Proc. 3rd Int. Symposium Int. Geosciences Program (IGCP) Project 589, Tehran 2014, p. 152-153. *(Abstract)*
(Lampang area in N Thailand belongs to Sukhothai Zone island arc, developed along margin of Indochina Block during Permian-Triassic. E Permian Kiu Lom Fm ~500m thick volcanoclastics with bedded limestone rel. rich in fusulinid foraminifera (Darvasites, Chalaroschwagerina, Praeskinnerella, Levenella, etc.). Volcanism of Sukhothai Arc active from latest Carboniferous - late E Permian (Yakhtashian), ceased, followed by major arc volcanism in M Triassic)

Moonpa, K. & K. Motanated (2018)- Basin classification and tectonic framework of the Nam Pat Group, Uttaradit Province, Thailand: implications for the Nan Suture Zone. Heliyon 4, 1, e00517, 24p.
(online at: https://www.sciencedirect.com/science/article/pii/S2405844017327214)
(Late Triassic Nam Pat Gp of Nam Pat Basin in Nan-Uttaradit Suture Zone, NW Thailand. Clastics dominated by volcanic arc detritus. Paleocurrents to SE and derived from underlying E-M Triassic Pak Pat andesitic magmatic arc volcanics. Basin best interpreted as short-lived back-arc basin rather than forearc basin)

Morley, C.K. (2017)- The impact of multiple extension events, stress rotation and inherited fabrics on normal fault geometries and evolution in the Cenozoic rift basins of Thailand. In: The geometry and growth of normal faults, Geol. Soc., London, Spec. Publ. 439, p. 413-445.
(Rift basins of Thailand with remarkable diversity of fault displacement patterns. Oblique extension, influence of pre-existing trends and stress rotation in multi-phase rifts more comprehensive explanation than strike-slip interpretation of previous studies)

Morley, C.K., N. Sangkumarni & T.B. Hoon (1998)- Structural evolution of Rift Basins in northern Thailand: new constraints from paleostress analysis. In: Offshore South East Asia Conference 1998 (OSEA98), Singapore, SE Asia Petroleum Expl. Soc. (SEAPEX), p. 79-81. *(Extended Abstract)*
(Tertiary rift basins of Thailand form N-S trending string of depressions from Gulf of Thailand in S to hill country in N. Southern basins larger, longer and deeper. Extension primarily in Oligocene and Miocene. Li basin data shows episodic compressional or strike-slip events through its evolution, inconsistent with simple pull-apart origin and suggesting strike-slip motions more complex than simple prevalent strike-slip models indicate. Thai basins may have evolved under two separate deformation mechanisms (escape tectonics from India collision and Indian Ocean subduction rollback) that may have alternated in importance with time)

Naviset, S., C.K. Morley, D.H. Naghadeh & J. Ghosh (2017)- Sill emplacement during rifting and inversion from three-dimensional seismic and well data, Phitsanulok Basin, Thailand. Geosphere 13, 6, p. 2017-2040.
(online at: https://gsw.silverchair-cdn.com/gsw/Content_public/Journal/geosphere/13/6/...)
(Cenozoic Phitsanulok rift basin with igneous intrusions and lava flows. Age of youngest sills ~10 Ma; older sills inferred of M Miocene age. Well E-A01 drilled E Miocene synrift Lan Krabu Fm with 300m thick olivine dolerite sill, but without high amplitude seismic responses usually seen in intrusions.)

Nishioka, Y., R. Hanta & P. Jintasakul (2013)- Note on giraffe remains from the Miocene of continental Southeast Asia. J. Science Technol. Mahasarakham Univ. (MSU) 33, 4, p. 365-377.
(online at: http://research.msu.ac.th/msu_journal/upload/articles/article441_98487.pdf)
(Bramatherium remains from Miocene deposits at Tha Chang sand pit, NE Thailand, and from Irrawaddy sediments, C Myanmar)

Nishioka, Y., H. Nakaya, K. Suzuki, B. Ratanasthien, P. Jintasakul, R. Hanta & Y. Kunimatsu (2016)- Two large rodents from the Middle Miocene of Chiang Muan, northern Thailand. Historical Biology 28, 1-2, p.
(Two large rodents from M Miocene (13.0- 12.4 Ma) from Chiang Muan Coal Mine, N Thailand (1) beaver (Anchitheriomys); (2) indeterminate larger rodent)

Nulay, P., C. Chonglakmani & Q. Feng (2015)- The provenances of the clastic Phu Khat Formation in the Nakhon Thai region constrained by the U-Pb detrital zircon age dating : implications for geotectonics evolution. J. Geol. Soc. Thailand 1, p. 37-45.

Nulay, P., C. Chonglakmani & Q. Feng (2016)- Petrography, geochemistry and U-Pb detrital zircon dating of the clastic Phu Khat Formation in the Nakhon Thai region, Thailand: implications for provenance and geotectonic setting. J. Earth Science (China) 27, 3, p. 329-349.
(online at: http://en.earth-science.net/PDF/20160612012417.pdf)
(Late Cretaceous- E Tertiary Phu Khat Fm sandstone unsorted texture and common unstable volcanic lithic fragments (recycled sediments and felsic volcanic rocks from M-L Triassic arc to W). Unconformably overlies mature sandstone of Late Cretaceous Khao Ya Puk Fm (mainly recycled sedimentary rock))

Nulay, P., C. Chonglakmani & W. Paengkaew (2014)- Lithostratigraphy of the Phu Khat Formation in Nakhon Thai Region, Thailand : preliminary result. Dept. Mineral. Resources (DMR), Annual Meeting 2014, Bangkok, 19p.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2557/8590.pdf)
(Phu Khat Fm is uppermost (Cretaceous) red bed in Nakhon Thai region. Alluvial fan and braided fluvial deposits overlie unconformably aeolian sandstone of Khao Ya Puk Fm. Thickness ~ 490m. Age not older than Campanian age and not younger than Ypresian)

Orberger, B., J. Girardeau, J.C.C. Mercier, J.P. Lorand & S. Pitragool (1993)- Ophiolithic chromitite from Nan-Uttaradit, Northern Thailand: a result of boninitic-type melt and peridotite interaction. In: A. Fenoll Hach-Ali et al. (eds.) Current research in geology applied to ore deposits, University of Granada, p. 197-201.

Panjasawatwong, Y., S. Chantaramee, P. Limtrakun & K. Pirarai (1997)- Geochemistry and tectonic setting of eruption of Central Loei Volcanics in the Pak Chom Area, Loei, Northeast Thailand. In: P. Dheeradilok et al. (eds.) Int. Conf. Statigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok 1997, Dept. Mineral. Res., 1, p. 287-302.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1997/7639.pdf)
(At least four pre-Jurassic volcanic belts in Thailand. Late Devonian C Loei volcanics part of Loei- Petchabun-Phai Sali volcanic belt, representing mid-ocean ridge basalts (MORB) and oceanic island arc lavas)

Patience, R.L., S.L. Rodrigues, A.L. Mann & I.J.F. Poplett (1993)- An integrated organic geochemical and palynofacies evolution of a series of lacustrine sediments from Thailand. Proc. ASCOPE 93 Conference, Bangkok, p. 75-84.

Peigne, S., Y. Chaimanee, J.J. Jaeger, C. Yamee, P. Srisuk & B. Marandat (2006)- A new member of the Mustelida (Mammalia: Carnivora) from the Paleogene of Southern Asia. J. Vertebrate Paleontology 26, p. 788-793.
(New mustelid rodents from Late Oligocene in Nong Ya Plong lignite mine in C Thailand)

Petersen, H.I., A. Foopatthanakamol & B. Ratanasthien (2006)- Petroleum potential, thermal maturity and the oil window of oil shales and coals in Cenozoic rift-basins, central and northern Thailand. J. Petroleum Geol. 29, 4, p. 337-360.
(C and N Thailand Oligocene- E Miocene rift basins with oil shales deposited in fresh-brackish lakes, with TOC up to 44%. With abundant lamalginite and algal-derived amorphous organic matter, liptodetrinite and telalginite (Botryococcus-type). Coals dominated by huminite and formed in freshwater mires. Exposed coals thermally immature. Steep Vitrinite Reflectance curves from oil basins reflect high geothermal gradients of

~62°C/km and ~92°C/km. Depth to top oil window for oil shales (VR ~0.70%) between ~1100-1800m depending on gradient. Kerogen composition and high T gradients result in narrow oil windows)

Petersen, H.I. & A. Mathiesen (2007)- Determination of the temperature history for the U Thong oilfield area (Suphan Buri Basin, Central Thailand) using a realistic surface temperature. J. Petroleum Geol. 30, 3, p. 289-296.
(BP1-W2 well in oil-producing Suphan Buri Basin with likely geothermal gradient of ~42ºC/km. Predicts that onset of oil generation at 107ºC post-dated reservoir and trap formation in M-L Miocene times)

Petersen, H.I., H.P. Nytoft, B. Ratanasthien & A. Foopatthanakamol (2007)- Oils from Cenozoic rift-basins in central and northern Thailand: source and thermal maturity. J. Petroleum. Geol. 30, 1, p. 59-78.
(Oil produced from Suphan Buri (U Thong, Sang Kajai fields), Phitsanulok (Sirikit field) and Fang Basin (Fang field) in C and N Thailand. Most Cenozoic rift-basins 2-4 km deep, but Phitsanulok Basin deepest, with up to 8km basin-fill. Sirikit oil most mature. Oils highly waxy, generated from freshwater lacustrine source rocks with common algal material. Presence of cadalene, tetracyclic C24 compounds, oleanane, lupane, bicadinane, etc., indicate contributions from higher land plants, either disseminated in lacustrine facies or from associated coal seams. Thermally immature oil shales (lacustrine mudstones) and coals exposed in many Thai basins)

Philippe, M., N. Boonchai, D.K. Ferguson, Hui Jia & W. Songtham (2013)- Giant trees from the Middle Pleistocene of Northern Thailand. Quaternary Science Reviews 65, 1, p. 1-4.
(Giant silicified trees in M Pleistocene gravel terraces of Ping River, 20 km N of Tak, N Thailand, with longest log 72.2m. Most trees belong to Koompassioxylon elegans. Part of >100m tall tropical- subtropical rainforest Lannathaian pebble tools (presumably from Homo erectus) from coeval beds in same area. Overlying basalts K/Ar dated at 0.6± 0.2 and 0.8 ±0.2 Ma)

Philippe, M., V. Daviero-Gomez & V. Sutheethorn (2009)- Silhouette and palaeoecology of Mesozoic trees in Thailand. In: E. Buffetaut et al. (eds.) Late Palaeozoic and Mesozoic ecosystems in SE Asia. Geol. Soc., London, Spec. Publ. 315, p. 85-96.
(Large M Jurassic- E Cretaceous conifer logs from forest environments with different types of architecture)

Philippe, M., V. Sutheethorn & E. Buffetaut (2010)- Revision de *Brachyoxylon rotnaense* Mathiesen, description de *B. serrae* n. sp. et consequences pour la stratigraphie du Cretace inferieur d'Asie du Sud-Est. Geodiversitas 33, 1, p. 25-32.
(online at: http://sciencepress.mnhn.fr/sites/default/files/articles/pdf/g2011n1a2.pdf)
('Reappraisal of Brachyoxylon rotnaense Mathiesen, description of B. serrae n. sp. and stratigraphical implications for SE Asia Early Cretaceous stratigraphy'. Mesozoic beds of Muang Phalan basin in S Laos continuation of Thailand Khorat Gp. (Khok Kruat Fm). With wood fossils formerly assigned to Brachyoxylon rotnaense, known from E Jurassic of Denmark, but associated vertebrate fossils indicate Aptian age. Laos material not same as European species and here described as B. serrae n. sp.. In Thailand B. serrae associated with endemic SE Asian E Cretaceous flora, with indicators of tropical climate with seasonal rainfall)

Polachan, S., W. Chantong, P. Srisuwon, P. Kaewkor & C. Praipiban (2010)- Petroleum potential of the Khorat Plateau, Thailand. Proc. Thai-Lao Technical Conf. Geology and mineral resources, Bangkok, p. 42-63.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2010/25973.pdf)
(Petroleum exploration of Khorat Plateau since 1962. 41 wells drilled, only two are gas discoveries, in Permian carbonate reservoirs (Nam Phong and Sin Phu Hom fields; Esso 1981,1982). Source rocks mainly Late Carboniferous rocks)

Polahan, M. & V. Daorerk (1993)- Report on aditional discovery of dinosaur's footprints in Thailand. In: T. Thanasuthipitak (ed.) Int. Symposium Biostratigraphy of mainland Southeast Asia: facies and paleontology (BIOSEA), Chiang Mai 1993, 1, p. 225-230.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1993/6789.pdf)

Pongsapich, W. & C. Mahawat (1977)- Some aspects of Tak Granites, northern Thailand. Geol. Soc. Malaysia. Bull. Geol. Soc. Malaysia 9, p. 175-186.
(online at: www.gsm.org.my/products/702001-101292-PDF.pdf)
(N-S trending Tak Batholith near Changwat Tak in NW Thailand >4000 km2, with 4 granitoid types. Minimum emplacement age Triassic.)

Prадidtan, S., S. Jaroonsitha & Y. Gonecome (1999)- Petroleum systems of the petroliferous basins in Thailand. In: Proc. Symposium Mineral, energy and water resources of Thailand: towards the year 2000, Bangkok 1999, p. 557-563
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1999/6769.pdf)
(Tertiary basins of Thailand two major source systems: (1) Oligocene- E Miocene synrift lacustrine source (Phitsanulok, Fang, Suphan Buri, Songkhla and other small oil-bearing basins); (2) M Miocene fluvial gas-prone system (Pattani, North Malay). In depocenters of large Pattani and North Malay Basinonset of main generation in E Miocene, predating Miocene structural closures)

Punpate, N., S. Pailoplee, I. Takshima & P. Charusiri (2005)- Ages of layered tektites and tektite- bearing sediments in Buntharik Area, Ubonratchathani, Northeast Thailand. Proc. Int. Conf. Geology Geotechnology and Mineral Resources of Indochina (Geo-Indo), Khon Kaen, p. 517-523.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2005/9369.pdf)
(Layered tektites from 0.7-1m thick pebble bed in Unit 4 of alluvial deposits in E-most Khorat Plateau. Size 1-5 cm, with average thermoluminescence age of ~850 ka. Younger ages of surrounding sediments suggests probable reworking of tektites)

Putthapiban, P. (1984)- Geochemistry, geochronology and tin mineralization of Phuket granites, Phuket, Thailand. Ph.D. Thesis La Trobe University, Melbourne, p. 1-435.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1984/4609.pdf)

Putthapiban, P. (1992)- The Cretaceous- Tertiary granite magmatism in the West coast of Peninsular Thailand and the Mergui Archipelago of Myanmar/ Burma. In: C. Piancharoen (ed.) Proc. Nat. Conf. on Geologic resources of Thailand: potential for future development, Bangkok, p. 75-88.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1992/6182.pdf)
(Cretaceous granites along W coast of Peninsular Thailand and along Myanmar- Thai border. Rb/Sr and K-Ar ages vary from ~72- 51 Ma, fission track ages ~55, 43 Ma, possibly reflecting slow cooling after emplacement)

Putthapiban, P. & C.M. Gray (1983)- Age and tin-tungsten mineralization of the Phuket granites, Thailand. Conference on Geology and mineral resources of Thailand, Bangkok, p. 30-39.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1983/10576.pdf)
(Four different granite suites at Phuket, W side of Peninsular Thailand. Rb/Sr ages ~83-94 Ma (Late Cretaceous). Age of tin-tungsten mineralization rel. late, ~84 Ma)

Qian, X., Q. Feng, Y. Wang, T. Zhao, J.W. Zi, M. Udchachon & Y. Wang (2017)- Late Triassic post-collisional granites related to Paleotethyan evolution in SE Thailand: geochronological and geochemical constraints. Lithos 286-287, p. 440-453.
(Chonburi, Rayong-Bang Lamung and Chanthaburi granite plutons in SE Thailand similar crystallization ages of 222-218 Ma (Norian, Late Triassic). Geochemically classified into S-type (Group 1; mainly from ancient greywackes) and I-type (Group 2; from juvenile mafic crust with input of meta-sediments) granites. Formed in post-collisional thickened crust after assemblage of Indochina and Sibumasu blocks. Linked to N with Late Triassic granitoids in NW Thailand (Sukhothai zone), to S with East Malay Peninsula granites)

Qian, X., Y. Wang, B. Srithai, Q. Feng, Y. Zhang, J.W. Zi & H. He (2017)- Geochronological and geochemical constraints on the intermediate-acid volcanic rocks along the Chiang Khong-Lampang-Tak igneous zone in NW Thailand and their tectonic implications. Gondwana Research 45, p. 87-99.
(*Lampang-Den Chai area volcanic suite in NW Thailand intermediate- acid rocks with zircon U-Pb ages of ~240-242 Ma (M Triassic). Sequence dominated by calc-alkaline andesites, dacites and rhyolites. Formed in*

response to slab roll-back during transition from subduction to continental collision between Sibumasu and Indochina blocks. Constitute part of Chiang Khong- Lampang- Tak igneous zone, extending N to Lancangjiang igneous zone and S to Chanthaburi, Malaysia and Singapore areas)

Qian, X., H. Wei, Y. Wang & Q.L. Feng (2012)- Zircon U-Pb age and geological significance of arc-volcanic rocks in Chiang Khong, northern Thailand. J. China University of Geosciences 37, p. 195-203.
(Common Permian- Triassic volcanic rocks in Chiang Khong area of N Thailand. Zircon ages of basaltic andesite samples from Doi Yao zone 241 ±6 Ma. Rhyolite from Doi Khun Ta Khuan zone 238± 9Ma. M Triassic ages comparable to arc-volcanic rocks in Lampang area, N Thailand (Chiang Rai Arc) and Jinghong area, SW Yunnan (Lancangjiang arc). Also zircons of 1885- 1323 Ma, indicating Proterozoic-Mesoproterozoic basement)

Racey, A., I.R. Duddy & M.A. Love (1997)- Apatite fission track analysis of Mesozoic red beds from northeastern Thailand and western Laos. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 1, p. 200-209.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(AFT analyses on Early Cretaceous fluvial sandstones from NE Thailand and SW Laos (incl. Khorat Plateau). Max. paleo-T before cooling >120° during burial. Cooling started at ~55 Ma for most samples, with possible final cooling to present outcrop between 35-25 Ma (Oligocene))

Racey, A., J.G.S. Goodall, M.A. Love, S. Polachan & P.D. Jones (1994)- New age data for the Mesozoic Khorat Group of Northeast Thailand. In: P. Angsuwathana et al. (eds.) Proc. Int. Symp. Stratigraphic correlation of Southeast Asia, Bangkok 1994, Dept. Mineral Res.and IGCP 306, p. 245-252.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1994/6950.pdf)
(Age of much of Khorat Gp (Late Jurassic?-) Early Cretaceous, not Jurassic). Lowermost formation of Khorat Gp (Nam Phong Fm) dated as latest Norian- Rhaetian (Ovalipoliis ovalis))

Racey, A., R.B. Stokes, P. Lovatt Smith & M.A. Love (1997)- Late Jurassic collision in northern Thailand and the significance of the Khorat Group. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 412-413. *(Extended Abstract)*
(Khorat Gp of NE Thailand commonly assumed to be of Late Triassic- E Cretaceous age, but here argued to include only Late Triassic and E Cretaceous sediments. Possibly reflects Late Jurassic collisional event (Sibumasu- Indochina collision)

Raksaskulwong, L. (2002)- Upper Paleozoic rocks of Thailand. In: Proc. Symposium on Geology of Thailand, Bangkok, p. 29-34.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2002/6373.pdf)
(Brief review of Carboniferous- Permian stratigraphy of Thailand)

Ratanasthien, B. (1997)- Algae types of oil source rocks in northern Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 2, p. 606-612
(Lacustrine oil shales in multiple Tertiary rift basins of NW Thailand dominated by Alginite B with disseminated Alginite A (Botryococcus brownii, Pila, Reinschia algae). Also Pediastrum)

Ratanasthien, B. (1999)- Association of oil source algae in some Tertiary basins, northern Thailand. J. Asian Earth Sci. 17, 1-2, p. 295-299.
(N Thailand Tertiry rift basins with coals and oil shales. In lower part e Tertiary (especially in Fang oilfield), mainly alginite A (Botryococcus sp.) only type of algae, changing upward into association of Botryococcus braunii, Pila,, thick-walled alginite B, and temperate palynomorphs (Late Oligocene?- E Miocene). In upper section alginite B dominant with Botryococcus-related taxa Pila, Reinschia and fresh-water-dwelling ferns)

Ratanasthien, B. (2005)- Evidences of tectonic evolution during Miocene. In: L. Wannakao et al. (eds.) Int. Conf. Geology Geotechnology and Mineral Resources (GEOINDO 2005), Khon Khaen, p. 615-621.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2005/9386.pdf)
(Tertiary basins in Thailand and Myanmar record change from temperate flora in lower part to subtropical-tropical, implying SE-ward movement towards Equator))

Ratanasthien, B., S. Chomproosi & T. Mahatthanachai (1997)- Deposition environment of Mae Moh Basin as indicated by coal petrography. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 2, p. 596-605.
(Mae Moh basin rel. small N-S trending Tertiary rift basin E of Lampang, with rel.common coal deposits (lignite- subbituminous) in fluvial-lacustrine ?Neogene section. Formed on Lampang Gp Permian-Triassic clastic and limestone basement. High sulfur content. Coal petrography)

Ratanasthien, B. & W. Kandharosa (1987)- Coal, oil-, oil shale-bearing formations in intermontane basins of Thailand. In: B. Situmorang (ed.) Proc. 6th Regional Conf. Geology Mineral Hydrocarbon Resources of Southeast Asia (GEOSEA VI), Jakarta 1987, IAGI, p. 363-369.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_2/1987/4669.pdf)
(Cenozoic intermontane and intercratonic basins of Thailand mainly filled with fluvial- lacustrine deposits. Most formations immature (Ro 0.2-0.7 %))

Ratanasthien, B., W. Kandharosa, S. Chompusri & S. Chartprasert (1999)- Liptinite in coal and oil source rocks in northern Thailand J. Asian Earth Sci. 17, 1-2, p. 301-306.
(N Thailand coal and oil shale deposits similar palynological associations to Borneo region. Oldest coal and oil shales (Late Oligocene- E Miocene age) dominated by Botryococcus sp. or related algae. Thick-walled lamaginites and spores and pollen of temperate affinity in some areas. Thin-walled lamaginite dominant in late M Miocene. Resinite, suberinite, and cutinite dominant in forest swamp coal deposits whereas alginite, cutinite and lycopodium spores dominant in lacustrine environments)

Ratanasthien B., T. Kojima, T.Tokumitsu, A. Katoh & N.Uyemura (1992)- Relationship between elementary analysis, origin and diagenesis of Tertiary Thai coals. In: C. Piancharoen (ed.) Proc. Nat. Conf. Geologic Resources of Thailand: potential for future development, Bangkok 1992, p 273-282.

Ratanasthien B. & S. Promkotra (1994)- Coal seams correlation of Li coal deposits. In: P. Angsuwathana (ed.) Proc. Int. Symposium on Stratigraphic Correlation of Southeast Asia, Bangkok 1994, p. 282-290.

Ratanasthien, B., I. Takashima & O. Matsubaya (2008)- Paleaogeography and climatic change recorded on Viviparidae carbon and oxygen isotope in Mae Moh Coal Mine, Northern Thailand. Bull. Geol. Survey Japan 59, 7/8, p. 328-338.
(online at: https://www.gsj.jp/data/bulletin/59_07_05.pdf)
(Coal mine in largest coal deposit in Thailand, in M Miocene of Mae Moh basin. With intercalations of up to 12m thick shell beds, composed of nearly 100% Bellemya fresh-water gastropod. C and O isotopes suggest more tropical climate in N Thailand in M Miocene)

Reynolds, N.A., T.W Chisnali, K. Kaewsang, C. Keesaneyabutr & T. Taksavasu (2003)- The Padaeng supergene nonsulfide zinc deposit, Mae Sod, Thailand. Economic Geology 98, p. 773-785.

Roberts, T.R. & J. Jumnongthai (1999)- Miocene fishes from Lake Phetchabun in North Central Thailand, with description of new taxa of Cyprinidae, Pangasiidae and Chandidae. Natural History Bull. Siam Soc. 47, 2, p. 153-189.
(online at: www.thaiscience.info/journals/Article/NHB/10439370.pdf)
(Miocene lacustrine beds at 2-4m depth in Phetchabun intermontane basin at Ban Nong Pia, N-C Thailand with 11 species of teleosts or bony fishes)

Robinson, K. (1984)- Assessment of undiscovered conventionally recoverable petroleum resources in Tertiary sedimentary basins of Thailand. U.S. Geol. Survey (USGS), Open-File Report 84-330, p. 1-14.
(online at: https://pubs.usgs.gov/of/1984/0330/report.pdf)

Saegusa, H., B. Ratanasthien & H. Nakaya (2000)- A new Miocene mammalian locality, Mae Soi and the occurrence of partial skeletons of rhinocerotids and gomophotheres from northern Thailand. Asian Paleoprimatology 1, p. 137-147
(online at: https://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/199736/1/aspp_01_137.pdf)
(New E or M Miocene vertebrate fossil locality in Mae Soi, Chiang Mai Province, with nearly complete gomphothere (Archaeobelodon or Gomphotherium) (elephant-like proboscideans))

Saesaengseerung, D. (2009)- Devonian to Triassic radiolarian biostratigraphy and depositional environments of these radiolarian-bearing rocks in Thailand. Ph.D. Thesis University of Tsukuba, p. 1-220. *(Unpublished)*

Saesaengseerung, D. & A. Sardsud (2013)- Summary of the Devonian to Triassic radiolarian faunas from northern and northeastern Thailand along the Laos-Thai Border. In: C. Senebouttalath et al. (eds.) Proc. 2nd Lao-Tai Conf. Geology and Mineral resources, Vientiane, p. 247-252.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/2013/36797.pdf)
(M Devonian- M Triassic 'Paleotethys' radiolaria along Laos-Thai border in pelagic and hemipelagic chert, and siliceous shales Assemblages: Stigmosphaerostylus variospina (M Devonian- E Carboniferous), Follicuculus scholasticus-Albaillella levis (M-L Permian) and Triassocampe deweveri (M Triassic))

Saesaengseerung, D., T. Kawinate & C. Pothichaiya (2015)- Discovery of Devonian to Carboniferous radiolarians from Central Thailand and its significance of these fauna in Thailand and Laos. Proc. 3rd Thai-Lao Techn. Conf. Geology and Mineral Resources, 2015, p. 115-134.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2015/10914.pdf)
(14 species of Late Devonian (Frasnian)- E Carboniferous (Tournasian) radiolaria in siliceous shale from E of Ban Rai, western C Thailand. With Trilonche spp., Stigmasphaerostylus spp., Albailella paradoxa, etc. Deposited on passive continental margin of Sibumasu terrane, facing Paleo-Tethys ocean)

Salam, A., W. Lunwongsa, L. Tangwattananukul, W. Sirisookprasert, A. Veeravinantanakul, K. Zaw & P. Charusiri (2014)- On the Chatree deposit in Central Thailand: its tectonism, ages, magmatism, structures, alteration and mineralization. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 331-341.
(Chatree epithermal Au-Ag deposit in C Thailand in Late Permian and E Triassic arc-related volcanic host rock units. Late Permian Suite 1 probably formed immediately after start of subduction and creation of new island arc. Less depleted E Triassic Suite 2 erupted during steady state subduction. Mineralization during switch between two mantle sources at Permo-Triassic boundary (~250 Ma). U-Pb zircon ages of emplacement of plutonic rocks at ~250-240 Ma and ~215-205 Ma. NNW-SSE normal faults response to E-W back arc extension prior to or during earliest Triassic. N-S trending reverse faults related to Triassic collision)

Salyapongse, S. (1992)- Foliated contact metamorphic rock of the eastern Gulf of Thailand. Thai Geoscience 2, p. 35-42.

Salyapongse, S., H. Fontaine, P. Putthapiban & A. Lamjuan (1997)- Geology of the Eastern Thailand (Route No. 1)- Guidebook for excursion. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, p. 1-69.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1997/2520_1.pdf)
(Brief review of E Thailand geology and fieldtrip stops in Shan Tai and Indochina terranes)

Salyapongse, S. & K. Sashida (2002?)- Volcanic rock fragments in sandstone associated with Triassic chert beds at Nong Pru, Kanchanaburi province. ??, p. 13-20.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2543/6935.pdf)

(Triassic volcanic sandstone with Carboniferous chert fragments, possibly sourced from Sukhothai volcanic belt)

Salyapongse, S. & K. Pitakpaivan (1999)- Older eolian evidences on the Khorat Plateau. J. Geol. Soc. Thailand 1, p. 18-26

Salyapongse, S. & P. Putthapiban (1997)- A reconsideration of the Nan Suture. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 403-411.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1997/7644.pdf)
(Nan suture with High P- low T eclogite- glaucophane schist- greenschist, as common in large orogenic belts, and indicative of subduction zone)

Saminpanya, S. & F.L. Sutherland (2014)- Different origins of Thai area sapphire and ruby, derived from mineral inclusions and co-existing minerals. European J. Mineralogy 23, 4, p. 683-694.
(Gem corundum from Thailand divided into sapphire and ruby suites. Rubies may have crystallized in high-P metamorphic rock of ultramafic/mafic composition. Sapphires may have crystallized in high-grade metamorphic rock or from highly alkaline magmas, at shallower depths than those hosting Thai rubies)

Sasada, M., B. Ratanasthien & R. Soponpongpipat (1987)- New K-Ar ages from the Lampang basalt, Northern Thailand. Bull. Geol. Survey Japan 38, 1, p. 13-20.
(online at: https://www.gsj.jp/data/bull-gsj/38-01_04.pdf)
(Two samples of aphyric Lampang basalts from SW part of Mae Moh basin, NW Thailand. Chemically of basanite composition. Whole rock ages 0.8 ± 0.3 Ma and 0.6 ± 0.2 Ma. K-Ar ages may give lower limit of formation age because of argon loss due to hydration. Most flows of Lampang basalt normal polarity, except lower flow. Some flows overlie gravel with early Paleolithic pebble tools)

Sashida, K. & N. Nakornsri (1997)- Lower Permian radiolarian faunas from the Khanu Chert Formation distributed in the Sukthothai area, northern Central Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 101-108.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(Lower Permian Pseudoalbaillella spp. radiolarian assemblages from deformed phyllitic bedded Khanu Chert Fm of Sukhotai foldbelt (Paleotethys suture))

Scheffers, A., D. Brill, D. Kelletat, H. Bruckner, S. Scheffers & K. Fox (2012)- Holocene sea levels along the Andaman Sea coast of Thailand. The Holocene 22, 10, p. 1169-1180.
(online at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.883.4261&rep=rep1&type=pdf)
(Several sea-level curves for younger Holocene published for Malay-Thai Peninsula. General assumption is rapid rise to M Holocene maximum up to +5 m above present sea level, followed by regression. Paleo-sea level indicators at Andaman Sea coast document Holocene maximum of +2.6 m at 5700 yr BP)

Settakul, N. & V. Pimasarn (1991)- Source rock screening and oil/source correlation in the IF-30-01G and IF-30-02S wells, Fang Field, Thailand. In: P. Ounchanum & B. Ratanasthien (eds.) Proc. Ann. Techn. Meeting 1989, Geol. Miner. Res. Thailand, Indochina and Myanmar, and IGCP-246, Pacific Neogene Event in Southeast Asia, 1990, Chiang Mai University, Spec. Publ. 9, p. 111-140.

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(online at: www.dmr.go.th/download/English/LAO%20-THAI%20Conference%202012_Proceedings.pdf)
(Cretaceous sediments in Thailand and Lao PDR entirely non-marine facies: widespread in NE, SE and S Thailand and much of Laos. Generally, reddish brown to light grey sandstones, claystones and conglomerates, with salts and gypsum only in Maha Sarakham and Saysomboun Fms. Two assemblages of Aptian-Albian

trigoniodid bivalves, in NE and Peninsular Thailand and in Savannakhet (Donghen) Basin of S Laos: T kobayashi- Plicatounio suzukii assemblage, and T. diversicostatus-Pseudohyria subovalis assemblage)

Shen, S., Q. Feng, W. Yang, Z. Zhang & C. Chonglakmani (2010)- Study on the geochemical characteristics of arc-volcanic rocks in the Chiang Rai-Lampang belt of northern Thailand. Chinese J. Geochemistry 29, 3, p. 255-260.
(Late Permian- E Triassic continent margin arc volcanics on E side of oceanic basalts in Chiang Mai belt indicative of E-ward subduction of oceanic crust in Chiang Mai belt)

Shen, S., Q. Feng, Z. Zhang & C. Chonglakmani (2009)- Geochemical characteristics of the oceanic island-type volcanic rocks in the Chiang Mai zone, northern Thailand. Chinese J. Geochemistry 28, 3, p. 258-263.
(Oceanic island arc rocks in Chiang Mai zone, N Thailand, are usually covered by Lower Carboniferous-Permian shallow marine carbonates. Geochemistry typical of oceanic island basalts and alkali basalts, similar to equivalents in Deqin and Gengma (Changning-Menglian zone) of Yunnan Province, China)

Shergold, J., C. Burrett, T. Akerman & B. Stait (1988)- Late Cambrian trilobites from Tarutao Island Thailand. New Mexico Bureau of Mines Mineral Resources Memoir 44, p. 303-320.
(~850m thick Tarutao Fm of Tarutao Island off SW Peninsular Thailand shallow marine clastics with U Cambrian and basal Ordovician trilobites. Terminal Cambrian assemblage with Micragnostus, Prosaukia, Hoytaspis, Lophosaukia, etc. Fauna resembles assemblage known from Vietnam)

Sherwood, N.R., A.C. Cook, M. Gibling & C. Tantisukrut (1984)- Petrology of a suite of sedimentary rocks associated with some coal-bearing basins in northwestern Thailand. Int. J. Coal Geology 4, p. 45-71.

Shibata, M., P. Jintasakul, Y. Azuma & H.L. You (2015)- A new basal hadrosauroid dinosaur from the Lower Cretaceous Khok Kruat Formation in Nakhon Ratchasima Province, Northeastern Thailand. PLoS ONE 10, 12, e0145904, p. 1-28.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0145904)
(New basal hadrosauroid dinosaur from Lower Cretaceous (Aptian) Khok Kruat Fm of Thailand: Sirindhorna khoratensis gen. et sp. nov.)

Sinclair, G. (1997)- A study of the Pranburi Formation and Khao Tao Formation. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 337-345.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1997/7643.pdf)
(Metamorphic formations at E side of Upper Peninsula of Thailand near Khao Tao. Pranburi Fm paragneiss and schist, marble and quartzite originally shallow marine island arc sediments. Khao Tao Fm orthogneiss originally granite. Since peak metamorphism in Late Triassic uplifted by ~10km. Several deformation episodes. N-S to NNE-SSW trending folds and schistosity. Tied to Sibumasu- Indochina collision)

Singtuen, M. & B. Phajuy (2016)- Geochemistry and tectonic significance of andesitic rocks in Tak Province, Thailand. In: Proc. 52nd Annual Session Coord. Comm. Geoscience Progr. E and SE Asia (CCOP), Bangkok, p. 65-74.
(online at: www.ccop.or.th/download/as/52as2.pdf)
(Geochemistry of M-L Triassic mildly calc-alkalic andesite porphyry from Chiang Kong- Lampang- Tak volcanic belt of NW Thailand. Erupted in volcanic arc setting)

Sitthithaworn, E. & P. Wasuwanich (1992)- Metallogenic map of Thailand. In: C. Piancharoen (ed.) Proc. Nat. Conf. Geologic Resources of Thailand-potential for future development, Dept. Mineral Resources, Bangkok, p. 1-15.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1992/6199.pdf)
(Thailand three metallogenic provinces, NE, Central (A, Cu, etc.) and West (Sn, Pb, Zn, etc.) representing continental and subduction system settings)

Songtham W., (2003)- Stratigraphic correlation of Tertiary basins in northern Thailand using algae, pollen and spores. PhD. Thesis, Chiang Mai University, Thailand, p. 1-280. *(Unpublished)*

Songtham, W., J. Duangkrayom & P. Jintasakul (2012)- An Australasian tektite from the Yasothon soil series, Noen Sa-nga, Chaiyaphum, Northeastern Thailand. In: Proc. First Int. Symposium of IGCP-589, Acta Geoscientica Sinica 33, Suppl. 1, p. 59-64.
(Quarries N of Noen Sa-nga, Khorat Basin, NE Thailand, with lower fluvial gravel unit (with thin ferricrete layer at top) and upper bright reddish brown structureless sand unit with fining-upward basal portion (Yasothon soil series). Black glassy tektite (4x2 cm) found at contact between two units.Tektite deposition followed by larger-sized sediments and angular quartz fragments forming fining-upward sedimentary series. Finer sediments gradually settled down, forming Yasothon structureless sand deposit. Meteoritic impact event occurred at ~0.77 Ma)

Songtham, W., B. Ratanasthien & D.C. Mildenhall (2004)- New species of algae *Actinastrum* Lagerheim and *Closterium nitzsch* ex Ralfs from Middle Miocene sediments of Chiang Muan basin, Phayao, Thailand, with tropical pollen composition. Science Asia 30, p. 171-181.
(online at: www.scienceasia.org/2004.30.n2/v30_171_181.pdf)
(Two new algal species of algae Actinastrum bansaense n. sp. and Closterium thailandicum from late M Miocene (~13.5 -10 Ma) lacustrine deposits associated with coals of Chiang Muan basin. Palynofloras from tropical monsoon forests (incl. Crassoretitriletes vanraadshoovenii fern spores, also Dipterocarpaceae, Lagerstroemia, Ilexpollenites, Myrtaceidites and Combretaceae with rare Florschuetzia-type, Homonoia, Calophyllum, Striatriletes susannae, Botryococcus and Mimosaceae. Laevigatosporites haardtii fern spores in some horizons. Three acme zones; upper zone mainly with freshwater alga Actinastrum bansaense)

Songtham, W., B. Ratanasthien & D.C. Mildenhall (2001)- Tropical palynofloras from Middle Miocene Chiang Muan basin, Phayao, Thailand. ?
(online at: www.thaiscience.info/Article%20for%20ThaiScience/Article/61/10012001.pdf)
(Sporomorphs from M Miocene sediments of Chiang Muan basin include abundant Crassoretitriletes vanraadshoovenii, Dipterocarpaceae, Ilexpollenites, Botryococcus and rare Florschuetzia, , representing tropical palynofloras derived from tropical monsoon forests, accumulated mainly in lacustrine environments)

Songtham, W., B. Ratanasthien, D.C. Mildenhall, S. Singharajwarapana & W. Kandharosa (2001)- Palynological zonation and their paleovegetations of Ban Pa Kha coal mine, Li basin, Changwat Lamphun. In: Geological Survey Division Annual Academic Meeting, Dept. Mineral Resources, Bangkok, p. 1-11.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2544/6144.pdf)
(Palynology of Oligocene- E Miocene Li Basin sediments, N Thailand. Climate became warmer and wetter with time)

Songtham, W., H. Ugai, S. Imsamut, S. Maranate, W. Tansathien, A. Meesook & W. Saengsrichan (2005)- Middle Miocene molluscan assemblages in Mae Moh Basin, Lampang Province, Northern Thailand. Science Asia 31, p. 183-191.
(online at: www.scienceasia.org/2005.31.n2/v31_183_191.pdf)
(Fresh-water molluscs in M Miocene Mae Moh Gp of N Thailand (?Paludina, Melanoides, Bellamya, Margarya, Planorbidae, etc.))

Songtham, W. & M. Watanasak (1999)- Palynology, age, and paleoenvironment of Krabi Basin, southern Thailand. In: B. Rattanasathien & S. Rieb (eds.) Proc. Int. Symposium on Shallow Tethys 5, Chiang Mai, p. 426-439.

Srichan, W. (2015)- Age dating of rocks in the Chiang Khong-Lampang-Tak Volcanic belt, northern Thailand. In: Proc. 4th Int. Symposium Int. Geosciences Program (IGCP) Project 589, Bangkok 2015, p. 77-78. *(Abstract only)*
(online at: http://igcp589.cags.ac.cn/4th%20Symposium/Abstract%20volume.pdf)

(U-Pb-Th zircon ages of igneous and sedimentary rocks in Chiang Khong-Lampang-Tak volcanic belt in middle part of Sukhothai Fold Belt. Most volcanic belt igneous rocks crystallized in late M- early Late Triassic (216-237 Ma) and show zircon age groups of ~ 220 Ma and ~230 Ma. Permian zircons (261-280 Ma) possibly inherited from Permian granites. Detrital zircons in sedimentary rocks in belt indicate Devonian-Carboniferous, Permian and Late Triassic rocks in provenance areas)

Stokes, R.B. (1988)- Structural control of Neogene sedimentation in the Mae Sot Basin (Thai-Burmese border: implications for oil shale reserves. J. Petroleum Geol. 11, 3, p. 341-346.

Suteethorn, V., E. Buffetaut, R. Helmcke-Ingavat, J.J. Jaeger & Y. Jongkanjanasoontorn (1988)- Oldest known Tertiary mammals from South East Asia: Middle Eocene primate and anthracotheres from Thailand. Neues Jahrbuch Geol. Palaont., Monatshefte 9, p. 563-570.

Suteethorn, S., J. Le Loeuff, E. Buffetaut, V. Suteethorn, C. Talubmook & C. Chonglakmani (2009)- A new skeleton of *Phuwiangosaurus sirindhornae* (Dinosauria, Sauropoda) from NE Thailand. In: E. Buffetaut et al. (eds.) Late Palaeozoic and Mesozoic ecosystems in SE Asia, Geol. Soc., London, Spec. Publ. 315, p. 189-215.
(New skeleton of sauropod dinosaur from E Cretaceous Sao Khua Fm at Ban Na Khrai in NE Thailand)

Tangwattananukul, L. (2015)- Characteristics of epithermal Au and porphyry Cu-Mo mineralizations of the Chatree deposit, central Thailand. Thesis, Akita University, p. 1-140.
(online at: https://air.repo.nii.ac.jp/?action=repository_uri&item_id=2547&file_id...2)
(Chatree Au-Ag deposit in Petchabun Province with two E Triassic mineralization styles in Carboniferous-sediments and Permian arc volcanics: (1) epithermal Au-Ag (~250 Ma; formed ~200m below paleosurface); (2) porphyry Cu-Mo (~244 Ma; formed ~1 km below paleosurface))

Tangwattananukul, L. & D. Ishiyama (2018)- Characteristics of Cu-Mo mineralization in the Chatree mining area, Central Thailand. Resource Geology 68, 1, p. 83-92.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/rge.12146/epdf)
(Chatree mineral deposits within Eastern Granite Belt at W side of Indochina Block (Triassic- Jurassic Sukhothai arc/ foldbelt). Include Cu-Mo-bearing quartz veins in altered E Triassic (243±5 Ma) granodiorite porphyry and altered andesite lava, formed at T of 450°C and P of 250 bars. Associated Au mineralization at Chatree slightly older (250±0.8 Ma; latest Permian))

Tangwattananukul, L., D. Ishiyama, O. Matsubaya, T Mizuta, P. Charusiri, H. Sato & K. Sera (2014)- Characteristics of Triassic epithermal Au mineralization at the Q prospect, Chatree mining area, Central Thailand. Resource Geology 64, 2, p. 167-181.
(Chatree Au deposit in 600km Loei-Phetchabun-Nakhon Nayok volcanic belt between Shan-Thai and Indochina terranes, that extends from Laos in N through C and E Thailand into Cambodia. Gold-bearing quartz veins in late Permian- E Triassic andesitic breccia and Carboniferous-Permian volcanic sedimentary breccia. Gold-bearing quartz veins five stages; formed ~200 m below paleosurface)

Tansathien, W., L. Raksaskulwong & A. Meesook (1997)- Stratigraphy, tectonic evolution and mineral deposits of Western Thailand (Route No. 2)- Guidebook for excursion. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, p. 1-55.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1997/2520_2.pdf)
(Brief review of W Thailand geology and fieldtrip stops in ?Precambrian metamorphics, Paleozoic sediments and younger rocks)

Tassy, P., P. Anupandhanant, L. Ginsburg, P. Mein, B. Ratanasthien & V. Suteethorn (1992)- A new *Stegolophodon* (Proboscidea, Mammalia) from the Early Miocene of Northern Thailand. Geobios 25, 4, p. 511-523.

Thanomsap, S. (1983)- Stratigraphic sequences and facies distributions in the Mae Sot Basin. In: Conf. Geology and Mineral Resources of Thailand, Bangkok, p. 367-376.

(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1983/10619.pdf)
(Late Tertiary Mae Sot intramontane basin in W Thailand with >2000m of fluvial-lacustrine sediments unconformably over Triassic-Jurassic limestones)

Thasod, Y., P. Jintasakul & B. Ratanasthien (2012)- Proboscidean fossil from the Tha Chang sand pits, Nakhon Ratchasima Province, Thailand. J. Science Technol. Mahasarakham University (MSU), 31, p. 33-44.
(online at: ttps://www.khoratgeopark.com/kgp/researchs/2012_Thasod_283-293-1-PB.pdf)
(Eight genera of Proboscidean fossils in sand pits in Nakhon Ratchasima province, NE Thailand, of families Dienotheriidae (Prodeinotherium, Gomphotherium, Tetralophodon, Sinomastodon, Protanancus), Stegodontidae (Stegolophodon, Stegodon) and Elephantiidae (Elephas). Ages M Miocene- Pleistocene)

Thassanapak, H., M. Udchachon, C. Burrett & Q. Feng (2017)- Geochemistry of radiolarian cherts from a Late Devonian continental margin basin, Loei fold belt, Indo-China terrane. J. Earth Science (China) 28, 1, p. 29-50.
(online at: http://en.earth-science.net/PDF/20170110101143.pdf)
(>42 species of U Devonian (Frasnian-Famennian) radiolaria in cherts-siliceous shales in NE Thailand sector of Loei fold belt (Indochina terrane). Geochemistry suggests continental margin environment near volcanic arc, different from U Devonian cherts from N Thailand, Truong Son foldbelt (Laos) and S China. U Devonian deep marine sequences in Loei fold belt deposited in rifted continental margin basin, possibly back-arc basin, not in large oceanic basin)

Thassanapak, H., M. Udchachon, Q. Feng & C. Burrett (2017)- Middle Triassic radiolarians from cherts/siliceous shales in an extensional basin in the Sukhothai Fold Belt, Northern Thailand. J. Earth Science (China) 28, 1, p. 9-28.
(online at: http://en.earth-science.net/PDF/20170110100741.pdf)
(>30 species of Late Ladinian radiolaria from red chert- siliceous shales in E of Sukhothai fold belt, incl. Muelleritortis cochleata, M. expansa, Triassocampe deweveri, T. coronata, T. scalaris, Annulotriassocampe companilis, A. multisegmantatus, A. sulovensis, Pseudostylosphaera spp., Canoptum inornatus, C. levis, Corum kraineri, Spongoserrula rarauana, Orbiculiforma karnica and others. Assemblages correlated with Fang-Chiang Dao and Lumphun areas in N Thailand and Changning-Menglian belt of W Yunnan. Interpreted deposited in extensional continental margin in Sukhothai fold belt/ Lampang-Phrae Basin, not in Devonian-Permian back-arc basin of Nan suture)

Tong, H., J. Claude, E. Buffetaut, V. Suteethorn, W. Naksri & S. Chitizing (2006)- Fossil turtles of Thailand: an updated review. In: J.C. Lu et al. (eds.) Papers from the 2005 Heyuan International dinosaur symposium, Geological Publishing House, Beijing, p. 183-194.

Tong, H., J. Claude, W. Naksri, V. Suteethorn, E. Buffetaut, S. Khansubha, K. Wongko & P. Yuangdetkla (2009)- *Basilochelys macrobios* n. gen. and n. sp., a large cryptodiran turtle from the Phu Kradung Formation (latest Jurassic-earliest Cretaceous) of the Khorat Plateau, NE Thailand. In: E. Buffetaut et al. (eds.) Late Palaeozoic and Mesozoic continental ecosystems in SE Asia, Geol. Soc., London, Special Publ. 315, p. 153-173.

Tongtherm, K., J Nabhitabhata, P. Srisuk. T. Nutadhira & D. Tonnayopas5 (2016)- New records of nautiloid and ammonoid cephalopod fossils in peninsular Thailand. Swiss J. Palaeontology 135, 1, p. 153-168.
(30 species of nautiloids and ammonoids identified from peninsular Thailand (+Shan-Thai/ Sibumasu). Ordovician nautiloids, Devonian-Carboniferous ammonoids, Triassic nautiloids (Michelinoceras, Tienoceras and syringonautilid nautiloids. Etc.))

Toriyama, R. & K. Kanmera (1977)- Fusuline fossils from Thailand. Part X. The Permian fusulines from the Limestone Conglomerate Formation in the Khao Phlong Phrab area, Sara Buri, Central Thailand. In: T. Kobayashi, R. Toriyama & W. Hashimoto (eds.) Geology and palaeontology of Southeast Asia, University of Tokyo Press, 18, p. 1-28.

Tsubamoto, T., B. Ratanasthien, Y. Kunimatsu, H. Nakaya, B. Udomkan, T. Silaratana et al. (2003)- A report on the paleontological excavation in the primate-bearing Krabi basin (late Eocene; Thailand). In: Research Report III on 'Evolution of the apes and the origin of the human beings', Primate Research Institute, Kyoto University p. 180-219.
(Vertebrate fossils from Late Eocene lignite beds of Krabi coal mine in S Thailand 6 genera of reptiles and 28 genera of mammals, incl. two primates (Wailekia, Siamopithecus). Krabi fauna dominated by artiodactyl mammals, particularly anthracotheres (Anthracotherium, etc.). Paleoenvironment tropical forests with swamps)

Udchachon, M., H. Thassanapak & C. Burrett (2017)- Palaeoenvironment and palaeogeography of Middle and Upper Devonian strata from the Loei fold belt, Indochina terrane (northeast Thailand). Palaeobiodiversity and Palaeoenvironments 97, 3, p. 497-516.
(Limestone-chert sections from Loei foldbelt, NE Thailand, yielded M-L Devonian (Givetian- Famennian) conodonts and Late Devonian radiolarian faunas. M Devonian siliciclastics interbedded with volcaniclastics and locally replaced by pillow basalts. Conformably overlain by argillaceous limestones and U Givetian reefal stromatoporoid-coral limestone. Drowning of bioherms and deposition of condensed continental margin oozes with radiolarians Trilonche spp and Famennian conodonts Palmatolepis spp.. Transgressive M-U Devonian series broadly similar to sections in S China and in Germany. Continental margin series)

Ueno, K., M. Ejima, Y. Kamata, T. Charoentitirat & A. Sardsud (2005)-Stratigraphy and sedimentary cycles of the Permian Kaeng Krachan Group of Phi Phi Island southern Thailand. In: Proc. Int. Conf. Geology, geotechnology and mineral resources of Indochina (GEOINDO 2005), Khon Kaen, p. 555-557.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2005/9376.pdf)
(E Permian Kaeng Krachan Gp on Phi Phi Island off Krabi, S Peninsular Thailand, part of Sibumasu Block. Cyclic, ~350m thick quartz-rich marine clastics, including sparse dropstones, overlain by temperate-subtropical Ratburi Limestone. Formed in glaciation-influenced basin. No figures)

Ueno, K. & H. Igo (1993)- Upper Carboniferous foraminifers from Ban Na Din dam, Changwat Loei, Northeastern Thailand. Trans. Proc. Palaeont. Soc. Japan, N.S., 171, p. 213-228.
(online at: www.palaeo-soc-japan.jp/download/TPPSJ/TPPSJ_NS171.pdf)
(Limestone outcrops at Ban Na Din Dam, E of Loei, NE Thailand. Previously assigned to Lower Permian Nam Mahoran Fm, but with fusulinids Triticites samaricus and Jigulites grandis n.sp., indicating Gzhelian (latest Carboniferous) age. Alsodescriptions of smaller foraminifera)

Unwin, D.M. & D.M. Martill (2017)- Systematic reassessment of the first Jurassic pterosaur from Thailand. In: D.W.E. Hone et al. (eds.) New perspectives on pterosaur palaeobiology, Geol. Soc., London, Spec. Publ. 455, 1, p. 181-186.
(Pterosaur humerus (PRC 64) from U Jurassic of Thailand reassigned to Rhamphorhynchidae)

Uttamo, W., C. Elders & G. Nichols (1999)- The Tertiary sedimentary basins of northern Thailand. In: Proc. Symposium Mineral, energy and water resources of Thailand: towards the year 2000, Bangkok, p. 71-92.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1999/6605.pd)
(>40 Tertiary intra-cratonic basins in N Thailand, mainly N-S trending, and with 500-3000m of sediment fill)

Vivatpinyo, J., P. Charusiri, C. Sutthirat (2014)- Volcanic rocks from Q-prospect, Chatree gold deposit, Phichit Province, North Central Thailand: indicators of ancient subduction. Arabian J. Engin. 39, p. 325-338.
(Area of Chatree gold deposit, W side of Khorat Plateau, N-C Thailand with subduction-related Loei-Phetchabun- Ko Chang volcanic arc sequence from basalt porphyry, basaltic tuff to rhyolite/rhyodacite tuff. Andesite dated as 250 ± 6 Ma, younger basaltic andesite dykes 244 ± 7Ma)

Von Koenigswald, G.H.R. (1959)- A mastodon and other fossil mammals from Thailand. Royal Dept. Mines, Bangkok, Rept. Invest. 2, p. 25-28.

Vozenin-Serra, C. & C. Prive-Gill (1989)- Bois Plio-Pleistocenes du gisement du Saropee, Plateau de Khorat, Est de la Thailande. Review Palaeobotany Palynology 60, 3-4, p. 225-254.

('Plio-Pleistocene wood from the Saropee deposit, Khorat Plateau, East Thailand'. Alluvial deposits of Mue Nam Mum river at Saropee yielded ~60 wood specimens, attributed to Araucarioxylon sp., Shoreoxylon thailandense n.sp., Careyoxylon pondicherriense, Dipterocarioxylon, etc. Plio-Pleistocene mixed deciduous forest assemblage, probably not far from river and ancient volcanoes (Bunopas et al. 1999: buried by 0.770 Ma Australasian tektite event?))

Vozenin-Serra, C. & C. Prive-Gill (2001)- Bois plio-pleistocenes du gisement de Ban Tachang (=Sarapee), Est-Thailande. Palaeontographica B, 260, p. 201ï 212

Vozenin-Serra, C., C. Prive-Gill & L. Ginsburg (1989)- Bois miocenes du gisement de Pong, nord-ouest de la Thailande. Review Palaeobotany Palynology 58, 2-4, p. 333-355.
('Miocene wood from the Pong deposit, NW Thailand')

Wang, Y., H. He, P.A. Cawood, B. Srithai, Q. Feng, W. Fan, Y. Zhang & X. Qian (2016)- Geochronological, elemental and Sr-Nd-Hf-O isotopic constraints on the petrogenesis of the Triassic post-collisional granitic rocks in NW Thailand and its Paleotethyan implications. Lithos 266-267, p. 264-286.
(Inthanon zone main suture zone of E Paleotethys Ocean in NW Thailand and links with Changning-Menglian suture zone in SW Yunnan. In NW Thailand switch from E-ward subduction of Paleotethys ocean plate to collision of Sibumasu with Indochina at ~ 237 Ma, with syn-collision at ~237-230 Ma and post-collision time at ~200-230 Ma. Late Triassic granites in Inthanon and Sukhothai zones of NW Thailand post-collisional magmatic products)

Wang, Y., H. He, Y. Zhang, B. Srithai, Q. Feng, P.A. Cawood & W. Fan (2017)- Origin of Permian OIB-like basalts in NW Thailand and implication on the Paleotethyan Ocean. Lithos 274-275, p. 93-105.
(manuscript online at: https://research-repository.st-andrews.ac.uk/handle/10023/12399)
(Basaltic rocks in NW Thailand part of SE Asian igneous zone that delineates extension of Paleotethys Ocean from SW China into NW Thailand. Chiang Mai basalts two groups of high-iron basalts, resembling OIB-like rocks. Origin intra-oceanic seamount setting in Paleotethyan Ocean, continued at least till 283 Ma (E Permian). Inthanon/ Changning-Menglian zones define main Paleotethyan suture zone)

Wasson, J.T., K. Pitakpaivan, P. Putthapiban, S. Salyapongse, B. Thapthimthong & J.F. McHone (1995)- Field recovery of layered tektites in northeast Thailand: evidence of a large scale melted sheet. J. Geophysical Research 100, E7, p. 14385-14389.
(Australasian tektites from 40×130 km region in NE Thailand all layered (Muong-Nong-type) tektites, with two exceptions near W edge of region, implying impact melt hot enough to flow if deposited on sloping surface. Absence of splash-form tektites indicates that layer still molten when reached ground. This requires that atmosphere remained hot (>2300°K) for few minutes. In-place tektites almost always associated with 10cm -1m thick layer of laterite, at bottom layer of loess-like sandy layer. Part of 1100-km-long area with layered tektites)

Waterhouse, J.B. (1981)- Age of the Rat Buri Limestone of southern Thailand. In: J.B. Waterhouse et al. (eds.) The Permian stratigraphy and palaeontology of Southern Thailand, Geological Survey Mem. 4, Dept. Mineral Resources, Bangkok, p. 1-42.
(Mainly critical evaluation of Grant (1976). Brachiopods from basal part of Rat Buri Limestone in S Thailand likely of Kungurian (late E Permian) age, not Baigendzinian (= Artinskian) as reported earlier, and in agreement with fusulinid data. Several specific links with Kungurian Bitauni fauna of Timor. No stratigraphy)

Waterhouse, J.B. (1982)- New Carboniferous brachiopod genera from Huai Bun Nak, North-east Thailand. Palaontol. Zeitschrift 56, 1-2, p. 39-52.
(Five new brachiopod genera and species are described from brown silty mudstone near Huai Bun Nak, NE Thailand)

Wolfart, R. (1987)- Geology of Amphoe Sop Prap (Sheet 4844-1) and Amphoe Wang Chin (sheet 4944-4) (1:50,000), Thailand. Geol. Jahrbuch 65, p. 3-52.

Wongpornchai, P. (1997)- Origin of the formations in Nong Bua Basin, Central Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 1, p. 210-217.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(Nong Bua Cenozoic continental rift basin in central plains of Thailand. Asymmetric half-graben, formed during E-W extension. Fluvial-lacustrine fill)

Wongwanich, T. (1990)- Lithostratigraphy, sedimentology, and diagenesis of the Ordovician carbonates, Southern Thailand. Ph.D. Thesis, University of Tasmania, p. 1-215.
(online at: https://eprints.utas.edu.au/21931/1/whole_WongwanichThanis1991_thesis.pdf)
(Study of Ordovician Thung Song Gp in Satun Province. Age U Tremadoc- U Ashgill. Ramp setting, 1400m thick sequence of tropical limestones, dolomites and calcareous shale, with tidal flats, stromatolite reefs, lagoons, buildup-barrier reefs and deeper water facies. Long and complex diagenetic history. Overlies red siliciclastics and overlain by latest Ordovician- Silurian- Devonian black graptolitic shales and cherts with radiolarians)

Wongwanich, T. & C.F. Burrett (1983)- The Lower Palaeozoic of Thailand. J. Geol. Soc. Thailand 6, 2, p. 21-29.
(online at: http://library.dmr.go.th/Document/J-Index/1983/90.pdf)
(Brief review of Lower Paleozoic in S and W Thailand. Close faunal affinities between trilobites and molluscs of Shan-Thai (Sibumasu) block and Australia suggest proximity to NW Australia in E Paleozoic)

Wongwanich, T., W. Tansathien, S. Leevongcharoen, W. Paengkaew, P. Thiamwong, J. Chaeroenmit & W. Saengsrichan W (2002)- The Lower Paleozoic rocks of Thailand. In: Proc. Symposium on geology of Thailand, Bangkok, p.16-21.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/2002/6370.pdf)

Wu, C. & S. Ishihara (1994)- REE geochemistry of the Southern Thailand granites. J. Asian Earth Sciences 10, p. 81-94.
(REE study of Triassic- Cretaceous tin-bearing and tin-barren granitic plutons in S Peninsular Thailand. Three groups: low, variable and exceptionally high REE contents)

Yakzan, A.M. & R.J. Morley (1997)- Palynology of Lower Miocene intermontane lacustrine sediments from the Nong Ya Plong Basin Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific, Dept. Mineral Resources, Bangkok, p. 259. *(Abstract only)*
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1997/7638.pdf)
(Palynology of 45m core from Sa Kae Ngam oilfield in Nong Ya Plong intermontane basin with E Miocene lacustrine shale and 6m bituminous coal. Shale with abundant Alnus. Upper mudstone with common pollen comparable to Florschuetzia and Lagerstroemia)

Yan, Y., B. Huang, J. Zhao, D. Zhang, X. Liu & P. Charusiri & A. Veeravinantanakul (2017)- Large southward motion and clockwise rotation of Indochina throughout the Mesozoic: paleomagnetic and detrital zircon U-Pb geochronological constraints. Earth Planetary Sci. Letters 459, p. 264-278.
(Paleomagnetic and U-Pb geochronologic study of Late Triassic-Cretaceous Huai Hin Lat and Nam Phong Fms in NE Thailand (W Khorat Plateau; part of Indochina Block). Paleolatitudes in Norian (<227 Ma) 33.4 ± 7.2°N to Late Cretaceous 24.5 ± 4.9°N. Data indicate S-ward displacement with CW rotation)

Yanagida, J. (1974)- Middle Carboniferous brachiopods from Loei, North Thailand. In: T. Kobayshi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 14, p. 7-23.

Yanagida, J. (1976)- Palaeobiogeographical consideration on the Late Carboniferous and Early Permian brachiopods of Central North Thailand. In: T. Kobayshi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 14, p. 173-189.
(Brachiopod faunas from Thum Nam Maholan Lst of N-C Thailand strong similarities to Lower Permian of Eurasian continent, but not to Australia- New Zealand. Etc.)

Yanagida, J. (1976)- Upper Carboniferous brachiopods from Wang Saphung, North Thailand. In: T. Kobayashi & R. Toriyama (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 16, p. 1-31.

Yanagida, J. (1976)- Palaeobiogeographical consideration on the Late Carboniferous and Early Permian brachiopods of Central North Thailand. In: T. Kobayashi & W. Hashimoto (eds.) Geology and Palaeontology of Southeast Asia, University of Tokyo Press, 17, p. 173-189.
(U Carboniferous and Lower Permian Brachiopod localities near Loei, N Thailand with similarities to N China, Europe, N America, etc.; few similarities with Australia)

Yumuang, S. (1997)- Post-depositional structural models of the potential potash layer in the Maha Sarakham Formation in Bamnet Narong area, Changwat Chaiapum, northeastern Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 2, p. 663-668.
(Delineation of potash (carnallite) layer in Cretaceous evaporites of Khorat Basin, NE Thailand. Thickness 4.3-40m)

Zaw, K., T. Rodmanee, S. Khositanont, T. Thanasuthipitak & S. Ruamkid (2007)- Geology and genesis of Phu Thap Fah gold skarn deposit, northeastern Thailand: implications for reduced gold skarn formation and mineral exploration. GEOTHAIö07 Int. Conference on Geology of Thailand, Bangkok, DMR, p. 93-95.
(Phu Thap Fah gold skarn deposit in Loei Province, NE Thailand, in Permian crystalline limestone and siltstone intruded by E Triassic granodiorite (~245 Ma) and Late Triassic andesitic dykes (~221 Ma). Gold occurs as electrum and gold-bismuth-telluride association. Most gold confined to massive pyrrhotite and pyrite)

Zhang, Y., Y. Wang, B. Srithai & B. Phajuy (2016)- Petrogenesis for the Chiang Dao Permian high-iron basalt and its implication on the Paleotethyan Ocean in NW Thailand. J. Earth Science (China) 27, 3, p. 425-434.
(online at: http://en.earth-science.net/PDF/20160612015946.pdf)
(E Permian very high-iron basalts from Chiang Dao, NW Thailand, have geochemical affinity to Oceanic Intraplate Basalts (OIB). Probable evidence for Paleotethys seamount, and suggest Paleotethys Ocean was located between Shan-Thai terrane of Sibumasu and Sukhothai arc along Inthanon zone of Chiang Mai-Chiang Rai rather than Nan-Uttaradit zones)

Zhou, Z. & M. Liengjarern (2007)- Early Permian verbeekinacean fusulinids associated with ammonoid *Perrinites* from Thailand. Acta Micropalaeontologica Sinica 24, 4, p. 346-358.
(Late E Permian (Kungurian) verbeekinaceans associated with Perrinites ammonoid fauna from Saraburi Group in S C Thailand. They represent mixed association of faunas with different ecological attributions)

IX.4. Myanmar (Burma), NE India, SW Yunnan (Sibumasu- West Burma plates)   (251)

Aitchison, J.C., G.L. Clarke, T.R. Ireland, K. Lokho, A. Ao, S.K. Bhowmik, T. Roeder et al. (2016)- New age constraints on the evolution of the Naga Hills: radiolarians and radiometric. In: Development of the Asian Tethyan Realm: genesis, process and outcomes, 5th Int. Symposium Int. Geoscience Program (IGCP) Project 589, Yangon, p. 54. *(Abstract only)*
(online at: http://igcp589.cags.ac.cn/5th%20Symposium/Abstract%20Volume.pdf)
(Naga Hills in Indo-Myanmar Ranges dominated by Cenozoic sediments structurally overlying Indian passive-margin sequence. Near India-Myanmar border imbricate thrust stack also contains sheets of ophiolitic melange. Ophiolite disrupted and overlain by Eocene shallow marine sediments of Phokphur Fm. Further E high-grade metamorphic units thrust W-wards over ophiolite. Well-preserved Jurassic, Cretaceous and Paleo-Eocene radiolarians together with U/Pb data from ophiolitic and metamorphic units. New detrital zircon ages suggest derivation of some units from Sibumasu rather than Lhasa or Qiangtang terranes)

Ali, J., J. Fitton & C. Herzberg (2010)- Emeishan large igneous province (SW China) and the mantle-plume up-doming hypothesis. J. Geol. Soc., London, 167, p. 953-959.
(M Permian (~262 Ma) Emeishan Basalts of SW China commonly cited example of large igneous province that formed as result of mantle plume generating large regional-scale up-doming prior to volcanism. Support idea that ELIP was generated by plume that originated in mantle, but amount and lateral extent of uplift significantly less than predicted by conventional deep-mantle plume models. Large-scale doming may not be diagnostic feature of mantle plumes)

Anderson, M.M., A.J. Boucot & J.G.Johnson (1969)- Eifelian brachiopods from Padaukpin, northern Shan States, Burma. Bull. British Museum (Natural History), Geology, 18, 4, p. 107-163.
(online at: http://ia600708.us.archive.org/4/items/bulletinofbritis18brit/bulletinofbritis18brit.pdf)
(M Devonian articulate brachiopods from weathered 'Lower Plateau Limestone' in Padaukpin area, NE of Maymyo area, E of Mandalay, associated with colonies of tabulate corals and stromatoporoids. Brachiopod fauna 32 species, similar to West Yunnan faunas and with marked affinity with Eifelian of W Europe (stronger affinity with Europe than USSR))

Ariffin, M.M.M., Kyaw Linn Oo, M.H.B.A. Wahab, Nyunt Shwe & M Khairil (2017)- Lower Miocene carbonate play in the Pyay sub-basin, onshore Myanmar: Reservoir characterization for prospectivity de-risking. AAPG/EAGE/MGS 3rd Oil & Gas Myanmar Geosciences Conf., Yangon, 11p. *(Extended Abstract)*
(Underexplored Lower Miocene carbonate play in Pyay sub-basin of C Myanmar, with Htantabin oil field (1979-1987))

Aung, A.K. (2004)- The primate-bearing Pondaung Formation in the Upland area, Northwest of Central Myanmar. In: C.F. Ross & R.F. Kay (eds.) Anthropoid origins, Kluwer/ Plenum, New York, p. 205-217.
(Review of late Middle Eocene molasse-type sediments of Central Burma Tertiary Belt (Inner Burman Tertiary Basin), at E side of the Indo-Burman Ranges)

Aung, A.K. (2011)- A short note on the discovery of Early Devonian tentaculite-bearing unit from Taunggyi-Taungchun Range, southern Shan State, Myanmar. Warta Geologi (Geol. Soc. Malaysia) 36, 4, p. 175-178.
(online at: ttps://gsmpubl.files.wordpress.com/2014/09/warta-36_4.pdf)
(E-M Devonian limestone with tentaculites from Taunggyi area, SE of Mandalay, in S Shan State. ~10m thick, between Silurian Linwe Fm and Permian-Triassic 'Plateau Lst'. Resemble Mahang Fm and Lalang Mb of NW Peninsular Malaysia. Also correlatable with E Devonian Zebingyi Fm of Pyin Oo Lwin)

Aung, A.K. (2011)- Stratigraphy of the Devonian sediments in the northwestern part of the Shan Plateau, Myanmar. Proc. 24th Ann. National Geoscience Conference 2011 (NGC2011), Johor Baru, B13, p. 59-60. *(Extended Abstract)*
(online at: http://geology.um.edu.my/gsmpublic/NGC2011/NGC2011_Proceedings.pdf)
(Rel. complete and mainly shallow marine Devonian section E of Mandalay, C Myanmar)

Aung, A.K., R.T. Becker & K.K. Myint (2011)- First record of Frasnian (Upper Devonian) sediments and ammonoids from Myanmar. Subcomm. Devonian Stratigraphy (SDS) Newsletter 26, p. 49-53.
(First record of U Devonian sediments and ammonoids (goniatite Beloceras and Tornoceras) in Myogyi area, Sino-Burman Ranges, E Myanmar, so far unknown from all of SE Asia (= Precambrian- Mesozoic shelf series of 'Sibumasu Terrane'))

Aung, A.K. & L.R.M. Cocks (2017)- Cambrian-Devonian stratigraphy of the Shan Plateau, Myanmar (Burma). In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 14, p. 317-342.
(Sibumasu (Shan-Thai) Terrane of Shan Plateau with common limestone-dominated Cambrian - Devonian rocks, which, before Permian were part of N Gondwana margin. By M Cambrian (~510 Ma) Myanmar part of Sibumasu sector of Gondwana straddled equator and was close to NW Australian sector. Some acidic Cambrian volcanics, but passive margin setting from E Ordovician- end Carboniferous)

Aung, H.H. (2015)- Delineation of western boundary of Paleo-Tethys suture zone in Myanmar. In: Proc. 4th Int. Symposium Int. Geosciences Program (IGCP) Project 589, Bangkok 2015, p. 1-3. *(Abstract)*
(online at: http://igcp589.cags.ac.cn/4th%20Symposium/Abstract%20volume.pdf))
(On western boundary fault of Paleo-Tethys suture zone in E Myanmar)

Aung, N.S., O. Chavasseau, Y. Chaimanee, C. Sein, J.J. Jaeger, X. Valentin & S. Ducrocq (2017)- New remains of *Siamotherium pondaungensis* (Cetartiodactyla, Hippopotamoidea) from the Eocene of Pondaung, Myanmar: paleoecologic and phylogenetic implications. J. Vertebrate Paleontology 37, 1, p.
(Well preserved skull of small anthracothere from late M Eocene of Pondaung Fm, attributed to Siamotherium pondaungensis. New material confirms it is anthracothere and not helohyid. Most likely terrestrial, open-forest animal with an omnivorous diet. Both species of Siamotherium confirms basal position in Hippopotamoidea)

Aung N.S., Myitta, S.T. Tun, A.K. Aung, T. Thein, B. Marandat, S. Ducrocq & J.J Jaeger (2002)- Sedimentary facies of the late Middle Eocene Pondaung Formation (central Myanmar) and the palaeoenvironments of its anthropoid primates. Comptes Rendus Palevol 1, p. 153-160.

Aung Zaw Myint, Khin Zaw, Ye Myint Swe, K. Yonezu, Yue Cai, T. Manaka & K. Watanabe (2017)- Geochemistry and geochronology of granites hosting the Mawchi Sn-W deposit, Myanmar: implications for tectonic setting and emplacement. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 17, p. 385-400.
(Mawchi Mine in Myanmar is historic world-class Sn-W deposit in SE Asia tin province (world's largest tin–tungsten quartz vein system exploited before WW II). M Eocene (~43 Ma) Mawchi granite small pluton at W side of Shan Plateau with biotite granite and tourmaline granite, derived from melting of crustal rocks. Part of Paleogene Western granite province (with nearby granites generally older: ~48-60 Ma)

Aung Zaw Myint, K. Yonezu, A.J. Boyce, D. Selby, A. Schersten, T. Tindell, K. Watanabe & Ye Myint Swe (2018)- Stable isotope and geochronological study of the Mawchi Sn-W deposit, Myanmar: implications for timing of mineralization and ore genesis. Ore Geology Reviews 95, p. 663-679.
(World-class Mawchi Sn-W mineralization in N-S trending steeply dipping quartz veins, hosted by Eocene granite and Carboniferous- E Permian metasediments. Three stages of ore formation; (1) tourmaline-cassiterite stage (2) main ore stage and (3) sulfide stage (with 40Ar/39Ar magmatic biotite age of ~41.5 Ma and zicon U-Pb age of 42.7Ma. Sn-W mineralization synchronous with late Eocene granitic magmatism)

Ba Maw, R.L. Ciochon & D.E. Savage (1979)- Late Eocene of Burma yields earliest anthropoid primate *Pondaungia cotteri*. Nature 282, p. 65-67.

Barber, A.J., K. Zaw & M.J. Crow (eds.) (2017)- Myanmar: geology, resources and tectonics. Geol. Soc., London, Memoir 48, p. 1-759.
(Major, modern review of geology of Myanmar by collective of expert authors)

Barber, A.J., K. Zaw & M.J. Crow (2017)- The pre-Cenozoic tectonic evolution of Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 31, p. 687-712.
(Myanmar 7 N-S tectonic units, from W to E: (1) Indo-Myanmar Ranges (accretionary prism); (2) W Myanmar (Burma) Block (metamorphic basement overlain by Cenozoic C Myanmar Basins); (3) Mogok Metamorphic Belt (high-grade metamorphic core complex with Late Oligocene- E Miocene exhumation age, and granitoids); (4) Slate Belt (Mergui Gp with Late Carboniferous- Permian diamictites and intruded by Late Jurassic- E Cretaceous granodiorites); (5) Paunglaung Mawchi zone (isoclinally folded Shan Plateau margin rocks), (3,4,5 = Shan Scarps area) and (7) Shan Plateau (Paleozoic- Triassic stratigraphy, part of Sibumasu Terrane). Indochina Block does not extend into Myanmar. Mt Victoria/ West Burma Block identified in literature, but E margin of this block against Sibumasu, conventionally identified as Sagaing Fault, not clearly defined. Cenozoic development of Myanmar profoundly affected by N-ward movement of India and collision with Eurasia at ~50 Ma, resulting in ~70° rotation of whole country)

Basu, P., R. Verma, R. Paul & K. Viswanath (2010)- Deep waters of Rakhine Basin - a new frontier? Proc. 3rd Biennial Int. Conf. Petroleum Geophysics, Hyderabad 2010, P-160, 7p.
(online at: https://www.spgindia.org/2010/160.pdf)
(Offshore Rakhine frontier basin in E part of Bay of Bengal, off Myanmar, with Shwe (2003) and Shwe Phyu and Mya subsequent gas discoveries, all three with biogenic gas in deep marine Lower Pliocene sandstones. Also postulated thermogenic petroleum system in Cretaceous sequence. Rakhine Basin merges with Andaman Nicobar-Sunda- Java foredeep basins system to South)

Baxter, A.T., J.C. Aitchison, S.V. Zyabrev & J.R. Ali (2011)- Upper Jurassic radiolarians from the Naga Ophiolite, Nagaland, northeast India. Gondwana Research 20, p. 638-644.
(Cherts from ophiolitic melange near Salumi, Nagaland, NE India, part of Naga- Andaman suture (Neotethys/Mesotethys oceanic material?) with U Jurassic (Kimmeridgian- lower Tithonian) radiolaria. Significantly older than fossils previously reported from this melange, but similar to radiometric ages from associated igneous units)

Beard, K.C., L. Marivaux, Y. Chaimanee, J.J. Jaeger, B. Maranda, P. Tafforeau, A.N. Soe, S.T. Tun & A.A. Kyaw (2010)- A new primate from the Eocene Pondaung Formation of Myanmar and the monophyly of Burmese amphipithecids. Proc. Royal Society, Biological Sciences, 276, p. 3285-394.
(online at: http://rspb.royalsocietypublishing.org/content/royprsb/276/1671/3285.full.pdf)
(New anthropoid amphipithecid Ganlea megacanina n.sp. from late M Eocene Pondaung Fm of C Myanmar. Pondaungia is sister taxon of Ganlea- Myanmarpithecus clade. Burmese amphipithecids endemic radiation of hard object feeders)

Beard, K.C., L. Marivaux, S.T. Tun, N.S. Aung, Y. Chaimanee, W. Htoon, B. Marandat, H.H. Aung & J.J. Jaeger (2007)- New sivaladapid primates from the Eocene Pondaung Formation of Myanmar and the anthropoid status of Amphipithecidae. Bull. Carnegie Museum Natural History 39, p. 67-76.
(Two new sivaladapid primates from late M Eocene Pondaung Fm.)

Bleeck, A.W.G. (1907)- Die Jadeitlagerstatten in Upper Burma. Zeitschrift Praktische Geol. 15, p. 341-365.
(online at: https://books.google.com/books...)
('The jadeite deposits of Upper Burma'. Early, detailed description of geologic setting of jadeitites of Kachin Hills, NE Myanmar. Primary occurrence as bed or dike in serpentinite)

Bleeck, A.W.G. (1908)- Jadeite in the Kachin Hills, Upper Burma. Records Geol. Survey India 36, 4, p. 254-285.
(online at: https://babel.hathitrust.org/cgi/pt?id=uc1.31822009563370;view=1up;seq=172;size=125)
(Jadeite found in three places in Kachin Hills of NE Myanmar: Tawmaw, Hweka and Mamon. Jadeite occurs as intrusive dike in serpentinite and in boulder conglomerates)

Bojesen-Koefoed, J.A., M.B.W. Fyhn, L.H. Nielsen, H.P. Nytoft, I. Abatzis & U Nyan Tun (2017)- Petroleum composition in the Central Burma Depression, Myanmar- a preliminary assessment. AAPG/EAGE/MGS 3rd Oil & Gas Conf., Yangon 2017, 5p. *(Extended Abstract)*
(C Burma Depression with up to 15km Albian- Recent sediments. Oils from Salin Basin from predominantly terrestrial source. Thermal maturity increasing from N to S across Salin Basin)

Burchfiel, B.C. & E Wang (2003)- Northwest-trending, middle Cenozoic, left-lateral faults in southern Yunnan, China, and their tectonic significance. J. Structural Geology 25, 5, p. 781-792.

Catlos, E.J., E. Reyes, M. Brookfield & D.F. Stockli (2016)- Age and emplacement of the Permian-Jurassic Menghai batholith, Western Yunnan, China. Int. Geol. Review 59, 8, p. 919-945.
(Menghai batholith in W Yunnan is S extension of ~370km long Lincang granite body that syntectonically intruded Paleotethys collision zone between Gondwanan Baoshan block and Laurasian Simao block. Crustal anatexis of Menghai granodiorites related to post-collisional lithosphere delamination and upwelling of hot asthenosphere, forming large-volume melts. Zircon ages from ~3234 to 172 Ma. Inherited zircons Carboniferous (~318 Ma) and older. Crystallization ages Permian- E Jurassic, with ages decreasing from centre of batholith to E perimeter from ~227- 211 Ma to 212- 171 Ma respectively. Collision and closure of branch of Paleotethys here over ~100 Myr period (Permian (281 Ma)- Jurassic (172 Ma))

Chaimanee, Y., O. Chavasseau, K.C. Beard, A.K. Aung, N.S. Aung, C. Sein V. Lazzari, L. Marivaux, B. Marandat, M. Swe et al. (2012)- Late Middle Eocene primate from Myanmar and the initial anthropoid colonization of Africa. Proc. National Academy Sciences USA (PNAS) 109, 26, p. 10293-10297.
(online at: www.pnas.org/content/109/26/10293.full.pdf)
(Earlier hypotheses supported African origin for anthropoids, but recent discoveries of older and phylogenetically more basal fossils in China and Myanmar indicate group originated in Asia. New fossil primate from late M Eocene Pondaung Fm of Myanmar (Afrasia djijidae) remarkably similar to, but dentally more primitive than roughly contemporaneous N African anthropoid Afrotarsius. Members of this clade may have dispersed from Asia to Africa in M Eocene, shortly before first appearance in African fossil record)

Chatterjee, N. & N.C. Ghose (2010)- Metamorphic evolution of the Naga Hills eclogite and blueschist, Northeast India: implications for early subduction of the Indian plate under the Burma microplate. J. Metamorphic Geology 28, p. 209-225.
(Tectonic slices of eclogite and blueschist in E Cretaceous-Eocene Naga Hills ophiolite belt. Part of accretionary wedge, reflecting E-ward subduction of Indian plate under Burma microplate prior to India-Eurasia collision. Glaucophane and epidote represent post-peak assemblage)

Chavasseau, O., A.A. Khyaw, Y. Chaimanee, P. Coster, E.G. Emonet, Aung Naing Soe, M. Rugbumrung, Soe Thura Tun & J.J. Jaeger (2013)- Advances in the biochronology and biostratigraphy of the continental Neogene of Myanmar. In: M. Fortelius et al. (eds.) Fossil mammals of Asia: Neogene biostratigraphy and chronology, Columbia University Press, New York, p. 461-476.

Chen, X.C., C.H. Zhao, J.J. Zhu, X.S. Wang & T. Cui (2018)- He, Ar, and S isotopic constraints on the relationship between A-type granites and tin mineralization: a case study of tin deposits in the Tengchong-Lianghe tin belt, southwest China. Ore Geology Reviews 92, p. 416-429.
(online at: https://www.sciencedirect.com/science/article/pii/S0169136817302007)
(Tengchong-Lianghe tin belt in W Yunnan, SW China, important tin mineralization belt with two large tin deposits: Paleogene Lailishan and Late Cretaceous Xiaolonghe, associated with A-type granitoids)

Chung, Y.H., S.Y. Yang & J.W. Kim (2012)- Numerical simulation of deep biogenic gas play northeastern Bay of Bengal, offshore Northwest Myanmar. AAPG Int. Conf. Exhib., Milan 2011, Search and Discovery Art. 50562, 32p. *(Abstract + Presentation)*
(Three commercial biogenic methane gas discoveries in Late Pliocene deepwater turbidite sandstones reservoirs of Bengal Fan off NW Myanma, 2900-3300m subsea. Modeling indicates M Miocene- Pliocene section thermally immature. Most biogenic gas generated from M Miocene and E Pliocene shale. Accumulation

of commercial quantities of biogenic gas requires early formation of traps and seals. Miocene- Pliocene paleo-hydrates formed have played important role in gas accumulation, acting as seals in initial gas generation stage)

Ciochon, R.L., P.D. Gingerich, G.F. Gunnell & E.L. Simons (2001)- Primate postcrania from the late middle Eocene of Myanmar. Proc. National Academy Sciences USA 98, 14, p. 7672-7677.
(online at: www.pnas.org/content/98/14/7672.full.pdf)
(First postcrania fossils of Pondaungia from M Eocene of C Myanmar. Overall, humeral and calcaneal morphology most consistent with that of other adapiforms and does not support inclusion in Anthropoidea)

Ciochon, R. L. & G.F. Gunnell (2002)- Eocene primates from Myanmar: historical perspectives on the origin of Anthropoidea. Evolutionary Anthropology 11, 4, p. 156-168.

Ciochon, R. L. & G.F. Gunnell (2002)- Chronology of primate discoveries in Myanmar: influences on the anthropoid origins debate. American J. Physical Anthropology, Suppl. 35, p. 2-35.
(First Eocene mammals from Asia described from Myanmar in 1916. First primates (Pondaungia, Amphipithecus) described in 1927 and 1937. all from M Eocene Pondaung Fm in Myanmar, and commonly compared with anthropoids. In late 1990s new primates discovered in Myanmar (Bahinia, Myanmarpithecus). None of known Asian primate taxa appear closely related to African anthropoids, making Asian origin for Anthropoidea unlikely)

Ciochon, R.L. & G.F. Gunnell (2004)- Eocene large-bodied primates of Myanmar and Thailand: morphological considerations and phylogenetic affinities. In: C.F. Ross & R.F. Kay (eds.) Anthropoid origins: new visions, Kluwer, New York, p. 249-282.

Ciochon R.L., D.E. Savage, T. Tint & B. Maw (1985)- Anthropoid origins in Asia? New discovery of *Amphipithecus* from the Eocene of Burma. Science 229, p. 756-759.

Clegg, E.L.G. (1938)- The geology of part of the Minbu and Thayetmyo Districts, Burma. Mem. Geol. Survey India, Memoir 72, 2, p. 132-307.

Cliff, D. & P. Carter (2016)- Exploration of the Rakhine Basin, pushing out the barriers with new 3D. 2nd AAPG/EAGE/MGS Conf. Unlocking the complex geology of Myanmar, Yangon 2015, Search and Discovery Art. 10848, 25p. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2016/10848cliff/ndx_cliff.pdf)

Colbert, E.H. (1937)- A new primate from the upper Eocene Pondaung Formation of Burma. American Museum Novitates 951, p. 1ï 18.
(online at: http://digitallibrary.amnh.org/handle/2246/2188)
(First? primate fossil (mandibule with few teeth) from upper Eocene Pondaung fauna, NW of Mogaung, Myanmar, named Amphipithecus mogaungensis, new genus and species)

Colbert, E.H. (1938)- Fossil mammals from Burma in the American Museum of Natural History. Bull. Amer. Museum Natural History 74, 6, p. 395-436.
(online at: http://digitallibrary.amnh.org/handle/2246/372)
(Diverse collection of mammal fossils from (1) M-U Pleistocene terraces along Irrawaddy River in N Myanmar (most common in Terrace 3); (2) in underlying E Pleistocene Upper Irrawaddy Beds (U Irrawaddy fauna probably related to Upper Siwalik fauna of India and E Pleistocene faunas of Java (Tji Djoelang, Kali Glagah and Djetis); and (3) Mogok cave fauna (likely equivalent to M Pleistocene Trinil fauna of C Java))

Connors, K., C. Jorand & L. Pryer (2017)- Influence of structural inheritance on the Moattama- East Andaman basins and the present day plate boundary. In: Proc. SE Asia Petroleum Expl. Soc. (SEAPEX) Exploration Conf. 2017, Singapore, p. 1-27. *(Abstract + Presentation)*
(Moattama Basin offshore Myanmar between Yadana-M8 High in W and Tanintharyi- Mergui Shelf to E, continuing S as oceanic (or highly extended continental crust) E Andaman Basin. Basement of Yadana-M8

highs in N and Alcock and Sewell rises with E Miocene volcanic units (K-Ar age date of ~20 Ma), possibly continental crust intruded during arc magmatism (W Burma Terrane possible analogue.)

Cossey, S. D. Kim, S.Y. Yang & H.Y. Jung (2013)- The identification and implication of injectites in the Shwe gas field, offshore Northwestern Myanmar. AAPG Ann. Conv. Exhib., Pittsburgh 2013, Search and Discovery Art. 20225, 26p. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2013/20225cossey/ndx_cossey.pdf)
(Sand injectites identified in offshore Pliocene Shwe (biogenic) gas field in Myanmar (distal Bengal Fan, on oceanic crust). Injectites provide vertical and lateral continuity from basal proximal lobe sequence to overlying distal lobe sequence. Sills 5 cm- 2m thick in cored wells, with sharp bases and tops))

Crow, M.J. & Khin Zaw (2017)- Geochronology in Myanmar (1964-2017). In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Appendix, p. 713-759.
(Summary of published isotopic age data for Myanmar up to early 2017. K–Ar age data often ambiguous due to resetting by later tectonic and metasomatic events. Isotopes of Rb and Sr in magmatic minerals more stable. U-Pb isotopes of zircons from granitoids particularly useful, also as detrital zircons in sediments)

Curiale, J.A., P. Kyi, I.D.Collins, Aung Din, Kyaw Nyein, Maung Nyunt & C.J.Stuart (1994)- The Central Myanmar (Burma) oil family; Composition and implications for source. Organic Geochem. 22, 2, p. 237-255.
(Geochemistry of 31 Eocene-Miocene oils/seeps, Eocene coal and Eocene resin from C Myanmar basin system suggest deep Eocene resinous shale/coal source for oils. Least mature oils in oldest reservoirs with oldest (Eocene) reservoirs filling first and youngest (Miocene) reservoirs filling last. Surface seepage may be from subsurface traps filled to spillpoint)

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(online at: http://rspl.royalsocietypublishing.org/content/8/221.full.pdf+html)
(At several localities in Burmah tar is mined from 60' deep wells. Mostly composed of volatiles. Etc.))

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(Five Pleistocene terraces along Irrawaddy River, unconfomably over tilted Pliocene- E Pleistocene 'Upper Irrawaddy Beds'. Contain 'Anyathian' Paleolithic stone tools)

Dey, A., M.F. Hussain & M.N. Barman (2017)- Geochemical characteristics of mafic and ultramafic rocks from the Naga Hills Ophiolite, India: Implications for petrogenesis. Geoscience Frontiers, 13p. *(in press)*
(online at: www.sciencedirect.com/science/article/pii/S1674987117301020)
(Geochemistry of Naga Hills ophiolite suggest two groups)

Diener, C. (1911)- Anthracolithic fossils of the Shan States. Mem. Geol. Survey India (Palaeontologica Indica), N.S., 3, 4, p. 1-74.
('Carboniferous fossils from Myanmar'. Mainly on (Permian) brachiopods from Fusulina elongata Limestone of Ke-Hsi Mansam in E Myanmar (incl. Spirifer, Spiriferella, Productus spp., Camarophoria purdoni, Oldhamina, Streptorhynchus, Dielasma, etc.). Also bryozoa (Fenestella, Polypora), corals (Amplexus, Zaphrentis, Lonsdaleia), etc.))

DMR-CCOP-TCNU (2017)- Technical seminar on Biostratigraphy and karst morphology of Satun aspiring geopark, Bangkok, p. 1-27.
(online at: www.dmr.go.th/download/article/article_20170720115517.pdf)
(Geology of Satun Province- Tarutao Island in SW Thailand. Part of Shan-Thai(Sibumasu) Plate, with well-documented complete Cambrian- Permian marine sediment section. Tarutao Gp Late Cambrian- E Ordovician clastics with trilobites. Thung Song Gp Ordovician limestones with nautiloids, stromatolites and trilobites. Thong Pha Phum Gp Silurian- Carboniferous black shale, chert, sandstone and limestone with graptolites, trilobites, dacryoconarids (tentaculites), brachiopods. U Carboniferous- Lower Permian Kaeng Krachan Gp clastics with glacial dropstones, including unweathered granite pebbles)

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(Fragmentary maxilla of new diacodexeid artiodactyl, Magwetherium burmense. Morphological affinities with the diacodexeid Jiangsudon from M Eocene Shanghuang fissure fillings in E China)

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(Two pieces of fossil wood collected almost 100 years ago from Pliocene of Magwe and Yenangyaung oil fields described as new species Ebenoxylon burmense and Saracoxylon irrawaddiense)

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(Extensive review of geologic setting and mineral occurrences of Myanmar)

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(online at: https://academic.oup.com/petrology/article/44/1/141/1408585)
(Ultramafic pillow lavas from Late Palaeozoic marine sequences in Yunnan have >26% MgO, olivine phenocrysts, clinopyroxenes with or without plagioclase in devitrified glassy matrix. Termed high-Mg picrites. Chemistry consistent with mantle plume origin. Chert interbes with Carboniferous radiolaria)

Fang, W., R. van der Voo & Q. Liang (1989)- Devonian paleomagnetism of Yunnan Province across the Shan Thai-South China Suture. Tectonics 8, 5, p. 939-952.
(Contrasting paleolatitudes for Devonian sediments in E Yunnan (equatorial; part of Yangtze/S China Block), and W Yunnan (paleolatitude of ~42°; part of Gondwanan Shan-Thai Block). Majority of samples overprinted by present-day field magnetization. Blocks separated by Red River and Lancang (Mekong) River fault zones, one of which inferred to be ancient suture)

Fang, W., R. van der Voo & Q. Liang (1990)- Ordovician paleomagnetism of Eastern Yunnan, China. Geophysical Research Letters 17, 7, p. 953-956.
(Ordovician formations of Yangtze Paraplatform (South China Block) show paleolatitude of 48°S, supporting Ordovician position of South China adjacent to Gondwana)

Fang, X., X. Ma, W. Li, Y. Zhang, Z. Zhou, T. Chen, Yong Lu & S Yu & J. Fa (2018)- Biostratigraphical constraints on the disconformity within the Upper Ordovician in the Baoshan and Mangshi regions, western Yunnan Province, China. Lethaia, p. *(in press)*
(Ordovician- Silurian of Baoshan and Mangshi regions in W Yunnan regarded as parts of Sibumasu terrane. Significant disconformity in U Ordovician, possibly related to sea-level drop during Late Ordovician glaciations or, less likely regional tectonic uplift in N Sibumasu)

Fang, Z.J. & J.C.W. Cope (2008)- Affinities and palaeobiogeographical significance of some Ordovician bivalves from East Yunnan, China. Alcheringa 32, 3, p. 297-312.
(Restudy of four poorly known Ordovician bivalve genera from Lw Ordovician Hongshiya Fm of E Yunnan. Similarities between cycloconchids suggest proximity of E Yunnan and Australia, although no species in common. Eastern W Yunnan fauna lay at much higher paleolatitude than E Yunnan fauna)

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(Latest Permian Wujiaping Fm limestones of Paleozoic- M Triassic Yangtze carbonate platform at Laren with rare fusulinids (Nankinella cf. inflata, Reichelina simplex) and low diversity calcisponges)

Gardiner, N.J., L.J. Robb & M.P. Searle, K. Htun & K. Zaw (2017)- The Bawdwin Mine, Myanmar: a review of its geological setting and genesis. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 30, p. 669-686.
(Bawdwin Mine Pb-Zn-(Cu-Ag-Ni) world-class mineral deposit in N Shan State, NE Myanmar, with near-continuous mining since 1412. E Paleozoic (Late Cambrian- E Ordovician) exhalative marine siliciclastic-felsic volcanogenic massive sulphide (VMS) deposit. Originally exploited as silver deposit, redeveloped in early1900's as mainly lead-zinc producer (largest lead mine before WWII). Thermal overprint in Late Triassic, linked to Indosinian orogeny)

Gardiner, N.J., M.P. Searle, C.K. Morley, L.J. Robb, M.J.Whitehouse, N.M.W. Roberts, C.L.Kirkland & C.J. Spencer (2018)- The crustal architecture of Myanmar imaged through zircon U-Pb, Lu-Hf and O isotopes: tectonic and metallogenic implications. Gondwana Research, p. *(in press)*
(Myanmar at least 4 major magmatic belts. Eastern and Main Range Provinces associated with Late Permian- E Triassic closure of Paleo-Tethys;Mogok- Mandalay- Mergui Belt and Wuntho- Popa Arc response to Eocene closure of Neo-Tethys. Mogok-Mandalay-Mergui Belt divided into Tin Province (~77-50 Ma magmatism) and Mogok Metamorphic Belt (complex magmatic- metamorphic history). Tagaung-Myitkyina Belt magmatic age of 172 Ma. New tectonic model for Myanmar: Baoshan and Greater Sibumasu likely assembled on or before Triassic, then sutured onto Indochina margin in Late Triassic. Tengchong Block within Myanmar southerly termination of Meso-Tethys suture immediately N of Mogok area. Tengchong Block sutured onto Greater Sibumasu before Late Cretaceous, after which Neo-Tethys subduction drove magmatism of Wuntho-Popa Arc)

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(Comprehensive review of metallic mineral occurrences in Myanmar. Geology still poorly known)

Grimaldi D.A., M.S. Engel & P.C. Nascimbene (2002)- Fossiliferous Cretaceous amber from Myanmar (Burma): its rediscovery, biotic diversity, and paleontological significance. American Museum Novitates 3361, p. 1-71.
(online at: http://digitallibrary.amnh.org/handle/2246/2914)
(Amber from thin lignite seams in Kachin, N Myanmar, ('burmite') used in China for at least a millennium for carving decorative objects. Metasequoia (Coniferae) possible source of amber. Age probably Turonian-Cenomanian (90-100 Ma; see also Shi et al. 2012) . Very rich in tropical plant and animal fossils. Newly excavated material in AMNH with 3100 organisms, incl. angiosperm flower and other plant material, mites, insects, flies, snails, etc., etc.)

Gunnell, G.F., R.L. Ciochon, P.D. Gingerich & P.A. Holroyd (2002)- New assessment of *Pondaungia* and *Amphipithecus* (Primates) from the late middle Eocene of Myanmar, with a comment on ôAmphipithecidaeö. Contr. Museum of Paleontology, University of Michigan, 30, p. 337-372.

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(online at: www.terrapub.co.jp/journals/GJ/pdf/4803/48030259.pdf)
(Extensive Late Eocene coals- coaly shales at W margin C Myanmar Basin. Organic matter mainly terrestrial herbaceous vegetation and aquatic plants, deposited in oxic to oxygen-poor peat swamps in estuarine/ fluvial-deltaic setting. Phase-I rich in gymnosperm biomarkers such as retene and 1,7-dimethylphenanthrene (type II-III kerogen); Phase-II increase in angiosperm proxies like oleanane (type III kerogen))

Harlow, G.E. & W. Bender (2013)- A study of ruby (corundum) compositions from the Mogok Belt, Myanmar: searching for chemical fingerprints. American Mineralogist 98, 7, p. 1120-1132.
(Mogok metamorphic belt of Myanmar famous for classic ruby (corundum: Al2O3) specimens. Model for formation of rubies hosted in marble from Himalayan arc is metamorphism of clays from evaporitic/organic-rich shale units. Mogok may involve igneous intrusions and formation of skarn)

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(Compositional variations in Emeishan basalts generated by melting of heterogeneous mantle sources and interaction between Emeishan plume and lithosphere. High-Ti basalts products of deep melting plume head material, similar to oceanic island basalts, with little lithospheric overprint. Low-Ti basalts from shallower melting of plume head with either crustal contamination or by inherited subduction components in lithosphere)

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(Published version of 2004 thesis. Late Paleozoic- E Mesozoic geodynamic evolution of Lancang River Zone (Yangtze Platform, SW Yunnan))

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(Teeth of earliest rhinocerotid, M Eocene Teletaceras from C Myanmar)

Htay, Hla, K. Zaw & T.T. Oo (2017)- The mafic-ultramafic (ophiolitic) rocks of Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 6, p. 117-141.
(Ophiolitic rock in three parallel N-S belts: (1) Western Ophiolitic Belt (Naga Hill Line; eastern hills of the Naga, Chin and Rakhine ranges; pre-Triassic ocean floor? (likely E Cretaceous oceanic crust and plagiogranites?); (2) Central Ophiolitic Belt; and (3) Eastern Ophiolitic Belt (Tagaung-Mytkina Belt M Jurassic ophiolite with Late Jurassic chert). Mandalay Line is combination of (2) and (3). All dismembered

incomplete ophiolite bodies in fore-arc accretionary prism, emplaced in Late Cretaceous-Eocene. EOB associated with Cretaceous clastics, radiolarian chert and Orbitolina limestone, which probably overlaps Mesotethys suture)

Htun, Than, Aung Kyin & K. Zaw (2017)- Lead-zinc-silver deposits of Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 27, p. 589-623.
(>290 Pb-Zn-Ag deposits known in Myanmar, incl. large volcanic-hosted Namtu-Bawdwin mining complex. Eight types of host rocks with Pb-Zn-Ag mineralization. Pb-Zn-Ag belts at E Paleozoic active margin of N-C Shan Plateau (Sibumasu), hosted within Lower Paleozoic sediments and volcanics)

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(Sn-W deposits associated with Late Cretaceous-Paleogene Central and Late Triassic- E Jurassic Eastern granitoid belts of Myanmar. Commercial exploitation of tin and tungsten in Myeik (Mergui) district of Myanmar. Surge in tin production in Myanmar since 2013 from Man Maw Mining District)

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(Oil exploration and production in Myanmar date back to 13th century, a time of manual excavation from hand-dug wells in Yenangyaung District. Export of crude oil began in 1853. After British annexation of U Burma Burmah Oil Company (BOC) established and started drilling at Yenangyaung in 1887, followed Yenangyat in 1893 and Chauk (Singu) in 1902. In 1918 oil production of Yenangyaung Field was >5.8 MMbbl/ year and, in 1941, Chauk's production peaked at >4 MMbbl. U Triassic- Miocene stratigraphy of Salin sub-basin of C Myanmar Basin includes Paleocene with Distichoplax, U Eocene with Biplanispira, Asterocyclina, etc.)

Htwe, K.K., K.M. Win, S. Aung & T.N. Win (2017)- Structural trap formation and petroleum accumulation in the northern part of Central Myanmar Basin: Kyaukkwet/ Letpanto Field. AAPG/EAGE/MGS 3rd Oil & Gas Conf., Yangon 2017, 5p. *(Extended Abstract)*

Huang, H. & X. Jin (2016)- Permian oolitic carbonates from the Baoshan Block, China: ooid features, stratigraphic distribution and paleogeographic indications. In: Development of the Asian Tethyan Realm: genesis, process and outcomes, 5th Int. Symposium Int. Geoscience Program (IGCP) Project 589, Yangon, p. 15-16. *(Abstract only)*
(online at: http://igcp589.cags.ac.cn/5th%20Symposium/Abstract%20Volume.pdf)
(In Baoshan (W Yunnan) and Peninsular Thailand(Sibumasu) block onset of (mid-latitude) oolitic carbonates in late M Permian (Wordian- Capitanian) (see also Huang et al. 2017))

Huang, H., X. Jin, F. Li & Y. Shen (2017)- Permian oolitic carbonates from the Baoshan Block in western Yunnan, China, and their paleoclimatic and paleogeographic significance. Int. J. Earth Sciences 106, 4, p. 1341-1358.
(M-L Permian ooids in Hewanjie Fm (N Baoshan) and Shazipo Fm (S Baoshan Block). Diachronous onset of Permian ooids among Gondwana-derived Cimmerian blocks: (1) mostly Sakmarian in Cl Taurides- C Pamir-Karakorum Block versus (2) Wordian-Capitanian in Baoshan Block, Peninsular Thailand and S Qiangtang (these also with Asselian- Sakmarian glaciomarine diamictite). Baoshan Block at higher paleolatitude during Asselian- Sakmarian than blocks with Sakmarian ooids. Marine ooids virtually absent near equator, so Baoshan Block interpreted to drift to warm-water southern mid-latitudes during Wordian- Capitanian)

Huang, H., X. Jin & Y. Shi (2015)- Mid-Permian fusulinids of the Bawei Section in southern Baoshan Block of western Yunnan, China with a discussion on paleogeographic implications. In: Proc. 4th Int. Symposium Int. Geosciences Program (IGCP) Project 589, Bangkok 2015, p. 28-30. *(Extended Abstract)*
(online at: http://igcp589.cags.ac.cn/4th%20Symposium/Abstract%20volume.pdf)
(Permian fusulinids and carbonates of Baoshan Block in W Yunnan show dramatic switch from cool, Gondwana-affinity to warm, Tethyan affinity. M Permian carbonates in some areas have diverse verbeekinids and neoschwagerinids and rare staffellids (and ooid grainstones), others no verbeekinids/ neoschwagerinids

but abundant staffellids (and dolomitic peloidal/skeletal wackestone-packstones). This reflects local sedimentary factors (open vs. restricted platform), not large-scale paleolatitude changes)

Huang, H., Y.K. Shi & X.C. Jin (2016)- Permian (Guadalupian) fusulinids of Bawei Section in Baoshan Block, western Yunnan, China: biostratigraphy, facies distribution and paleogeographic discussion. Palaeoworld 26, 1, p. 95-114.
(online at: https://ac.els-cdn.com/S1871174X16300026/1-s2.....)
(Bawei Section in Shazipo Fm of S Baoshan Block (part of Sibumasu) in W Yunnan, with 31 species of M Permian fusulinids, in two late Murgabian- Midian assemblages: (1) Yangchienia-Nankinella and (2)overlying Chusenella-Rugosofusulina. Overlain by Shanita-bearing limestone. Dominance of staffellids and paucity of neoschwagerinids and verbeekinids differs from coeval fusulinids in Nansan-Hewai area in S Baoshan Block with common neoschwagerinids and verbeekinids. Interpreted as due to different depositional environments. (Nansan-Hewai area high-energy open platform))

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(online at: https://www.terrapub.co.jp/journals/EPS/pdf/2012/6404/64040333.pdf)
(Geometry of subducting Indian Plate under Burma Plate from relocated subduction earthquakes at depths of 30-140 km. Strikes of contours oriented ~N-S, and show 'S' shape in map view)

Ito, T., X. Qian & Q.L. Feng (2016)- Geochemistry of Triassic siliceous rocks of the Muyinhe Formation in the Changning-Menglian belt of Southwest China. J. Earth Science (China) 27, 3, p. 403-411.
(online at: http://en.earth-science.net/PDF/20160612014127.pdf)
(Triassic siliceous rocks of Muyinhe Fm in Changning-Menglian belt (Paleotethys suture). Triassic radiolaria Triassocampe, Pseudostylosphaera, Eptingium and Paroertlispongus observed on etched surfaces. Geochemistry suggests unlikely to be oceanic pelagic deposits; possibly represent closure stage of Paleotethys)

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(New lower jaw fragments of primates Amphipithecus and Pondaungia in Eocene Pondaung Fm in C Myanmar Together with Siamopithecus from Late Eocene of Peninsular Thailand resemblance some African relatives)

Jaeger, J.J., A. Naing Soe, O. Chavasseau, P. Coster, E. Emonet, F. Guy, R. Lebrun, Aye Maung et al. (2011)- First hominoid from the Late Miocene of the Irrawaddy Formation (Myanmar). PLos ONE 6, 4, e17065, p. 1-14.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0017065)
(First hominoid found in Myanmar (Khoratpithecus ayeyarwadyensis sp. nov.), together with Hipparion and other mammal fauna from Irrawaddy Fm, dated between 10.4- 8.8 Ma. Fauna and stable isotope data indicate evergreen forest environment)

Jaeger, J.J., T. Thein, M. Benammi, Y. Chaimanee, A.N. Soe, T. Lwin, T. Tun, S. Wai & S. Ducrocq (1999)- A new primate from the Middle Eocene of Myanmar and the Asian early origin of anthropoids. Science 286, 5439, p. 528-530.
(New anthropoid primate, Bahinia pondaungensis from late M Eocene Pondaung Fm. Part of Eosimiidae now known from three M Eocene localities in Asia, supporting hypothesis of Asian origin of anthropoids)

Jerram, D.A., M. Widdowson, P.B. Wignall, Y. Sun, X. Lai, D.P.G. Bond & T.H. Torsvik (2016)- Submarine palaeoenvironments during Emeishan flood basalt volcanism, SW China; implications for plume-lithosphere

interaction during the Capitanian, Middle Permian ("end Guadalupian") extinction event. Palaeogeogr. Palaeoclim. Palaeoecology 441, 1, p. 65-73.
(M Permian platform carbonate deposition terminated by rapid subsidence, with onset of late M Permian Emeishan volcanism during deepening (with widespread losses amongst fusulinacean foraminifera and calcareous algae). Lower two thirds of 4-5 km thick lava pile erupted at or below sea level, with terrestrial lava flows only in later stages. Late Permian of SW China at time of Emeishan was extended area of thinned lithosphere with epeiric seas, sustained through onset of LIP emplacement. Geochemical support of plume origin for Emeishan volcanism, but LIP emplacement not associated with regional pre-eruption uplift)

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(online at: https://watermark.silverchair.com/egs045.pdf..)
(Late Permian Emeishian flood picrite lavas represent low- and high-Ti end-members of continental flood basalt magmatism. Diverse spectrum of basaltic magma. Peridotite and garnet pyroxenite mantle source for low- and high-Ti end-members, and more likely from subcontinental lithospheric mantle than from deep mantle 'plume')

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(Review of geology and hydrocarbons in offshore Myanmar M8 Block, S of Yadana field)

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(Almost all producing oil - gas fields in Myanmar in Salin, Irrawaddy and Martaban basins, in Mio-Pliocene reservoirs)

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(online at: www.searchanddiscovery.com/documents/2012/50771khin/ndx_khin.pdf)
(On Late Cenozoic clastics Arakan Basin, W Myanmar, in frontal part of Himalayan orogenic belt)

Khin, K., T. Sakai & K. Zaw (2017)- Arakan Coastal Ranges in western Myanmar, geology and provenance of Neogene siliciclastic sequences: implications for the tectonic evolution of the Himalaya-Bengal System. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 5, p. 81-116.
(Mainly analysis of ~2000m thick Miocene clastics of W Arakan Basin. Overall shallowing-upward series. E Mioceen sandstones quartz-rich. Overall upward increase in feldspar and high-metamorphic lithics, reflecting Himalayan uplift and orogenic unroofing)

Khin, K. & K. Zaw & L.T. Aung (2017)- Geological and tectonic evolution of the Indo-Myanmar Ranges (IMR) in the Myanmar region. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 4, p. 65-79.
(Indo-Myanmar Ranges (= Indo-Burman Ranges or Western Ranges) along W margin of Myanmar microplate extend from E Himalayas S-wards along E side ofe Bay of Bengal to Andaman Sea. Comprise Naga Hills in N, Chin Hills in middle and Rakhine (Arakan) Yoma in S. Considered to have formed as accretioanry wedge due to E-ward subduction under Myanmar from ?E Cretaceous- Recent. Rocks Late Triassic-Eocene flysch-type

metasediments, three belts of Triassic-Jurassic ophiolitic rocks in E (W-ward obduction in Late Oligocene?). Ophiolitic sequence overlain by Eocene-Miocene flysch. Cretaceous and Paleogene limestone olistoliths)

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(Geologic modeling of Daewoo Shwe, Shwe Phyu and Mya gas fields in Bay of Bengal, off W Myanmar. Reservoirs Late Pliocene deepwater channelized and basin floor fan lobe deposits)

Kingson, O., R. Bhutani, J.K. Dash, S. Sebastian & S. Balakrishnan (2017)- Resolving the conundrum in origin of the Manipur Ophiolite Complex, Indo-Myanmar range: constraints from Nd isotopic ratios and elemental concentrations in serpentinized peridotite. Chemical Geology 460, p. 117-129.
(REE abundances and Nd isotopic ratios in serpentinized peridotite from Manipur Ophiolite Complex (MOC), Indo-Myanmar Range. Variation of La/Yb consistent with progressive addition of subduction-derived fluid to depleted mantle source. MOC buoyant fore-arc-mantle-wedge system along with subducted slab that was obducted during terminal stage of subduction of Neotethys below Burmese plate)

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(Myanmar contains world-class gem deposits, incl. ruby from Mogok Stone Tract in Mandalay district, Mong Hsu ruby deposit in Shan State and jadeite from Kachin State. Both primary hard-rock deposits and secondary eroded/transported deposits)

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(Antimony deposits mainly in E Myanmar, in Shan Plateau and Mogok- Mandalay- Mergui metallogenic provinces)

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(U-Pb and Hf isotope analyses on detrital zircons from Carboniferous in Tengchong block yield Neoarchean (~2.5 Ga), Mesoproterozoic (1.7-1.4 Ga), Grenvillian (~ 0.95 Ga) and Pan-African (0.65-0.5 Ga) age groups. Oldest Hf model ages indicate source magma included reworked Eoarchean (3.8-3.7 Ga) crustal material. Resemblance with Tethyan Himalayan, W Qiangtang and Indochina suggests Tengchong block was located along Indian margin of Gondwana in E Paleozoic)

Li, H., Aung Zaw Myint, K. Yonezu, K. Watanabe, T.J. Algoe & J.H. Wu (2018)- Geochemistry and U-Pb geochronology of the Wagone and Hermyingyi A-type granites, southern Myanmar: implications for tectonic setting, magma evolution and Sn-W mineralization. Ore Geology Reviews 95, p. 575-592.
(Sn-W-associated granites common in Dawei region of SE Asian tin belt. High-K calc-alkaline Type A2 granites. U-Pb dating of magmatic and hydrothermal zircons from two granites yielded ages of 61-60 Ma (Paleocene) magmatic-mineralization event. Granites crustal origin, produced by partial melting of felsic clay-rich source in back-arc extensional setting)

Li, J., H. Zhong, W.G. Zhu, Z.J. Bai & W.J. Hu (2017)- Elemental and Sr-Nd isotopic geochemistry of Permian Emeishan flood basalts in Zhaotong, Yunnan Province, SW China. Int. J. Earth Sciences 106, 2, p. 617-630.

(Elemental and isotopic data for basalts from intermediate zone of ~260 Ma Emeishan large igneous province suggest garnet-dominated peridotite mantle plume source. High-Ti basalts in inner zone variable compositions, indicating heterogeneous mantle source, possibly with subcontinental lithospheric mantle)

Licht, A., A. Boura, D. De Franceschi, T. Utescher, C. Sein & J.J. Jaeger (2015)- Late Middle Eocene fossil wood of Myanmar: implications for the landscape and the climate of the Eocene Bengal Bay. Review Palaeobotany Palynology 216, p. 44-54.
(late M Eocene Pondaung Fm, Myanmar, with diverse silicified wood assemblage, incl. early Dipterocarpaceae. (Licht et al. 2014). Also Menispermoxylon, Glutoxylon and Heritieroxylon, related to modern taxa of mangrove and coastal forests in Bengal Bay. Assemblages suggest (1) monsoonal climate (with significant rainfall and marked dry season), confirming studies showing Bengal Bay experienced monsoonal regime as early as 40 Ma and (2) warmer annual temperatures, supporting hypothesis that monsoonal rainfall at that time favored by Eocene greenhouse conditions)

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(Data from Eocene of Myanmar suggestive of monsoon-like climate patterns during Late Eocene greenhouse conditions (55-34 Ma))

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(online at: www.searchanddiscovery.com/documents/2017/51427lwin/ndx_lwin.pdf)
(Deep marine M Eocene benthic and planktonic foraminifera and radiolaria from folded sediments near eastern foothills of Rakhine Yoma, C Myanmar Basin)

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(Bottom Simulating Reflector (BSR) in deepwater Rakhine Basin off Myanmar indicates Gas Hydrate Stability Zone (HSZ) and potential extensive gas hydrate system, likely indicatative of extensive microbial gas system)

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(online at: www.pnas.org/content/100/23/13173.full.pdf)

(Primate talus from Segyauk, Myanmar, more similar to anthropoids than to adapiforms. Foot bone may belong to Amphipithecus)

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(New material of anomaluroid rodent Pondaungimys anomaluropsis Dawson 2003 from latest M Eocene Pondaung Fm in C Myanmar (South Asia). Suggest faunal exchanges between Africa and Asia in Paleogene)

Maung, M., T. Htike, T. Tsubamoto, H, Suzuki, C. Sein, N. Egi, Z. Win et al. (2005)- Stratigraphy of the primate-bearing beds of the Eocene Pondaung Formation at Paukkaung area, Myanmar. Anthropological Science 113, p. 11-15.
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('Upper Member' of ~500m thick fluvio-deltaic, late M Eocene (Bartonian) Pondaung Fm at Paukkaung area in C Myanmar known for vertebrate fossils (incl. primates) since 1920's. Formation underlain by M Eocene Tabyin Fm with Nummulites and overlain by Late Eocene Yaw Fm with Nummulites and Discocylina. Primate fossil localities Pk1, Pk2, Pk3, and Pk5 all nearly at same stratigraphic level, with age of ~37.2 Ma)

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(online at: https://doc.rero.ch/record/20953/files/PAL_E4155.pdf)
(New tapiromorph, Skopaiolophus burmese, from M Eocene Pondaung Fm suggests primitive tapiromorphs may have persisted in SE Asia until late M Eocene while they became extinct in both Eurasia and N America)

Metais, G., Aung Naing Soe, L. Marivaux, & K.C. Beard (2007)- Artiodactyls from the Pondaung Formation (Myanmar): new data and reevaluation of the South Asian faunal province during the Middle Eocene. Naturwissenschaften 94, 9, p. 759-768.
(New dichobunid Cadutherium kyaukmagyii and basal ruminant Irrawadymeryx pondaungi, from late M Eocene Pondaung Fm, Central Myanmar (small rabbit-like ungulates).)

Min, M., L. Ratschbacher, E. Enkelmann, L. Franz, R. Jonckheere & M. Tichomirowa (2017)- Magmatism, Metamorphism, Deformation, and Exhumation in Southern, Central and Eastern Myanmar. AAPG/EAGE/MGS 3rd Oil & Gas Conf., Yangon 2017, 5p. *(Extended Abstract)*
(Zircon dating shows basement of Myanmar contains Proterozoic and E Paleozoic zircons. Igneous event of ~490 Ma ties basement to Gondwana. Shan Plateau of E Myanmar lacks Cenozoic-Cretaceous magmatism; Triassic event links it to Qiangtang block of C Tibet. Jurassic- E Cretaceous magmatism ties Mogok metamorphic belt to Gangdese belt of Tibet (Lhasa block) and Neotethys subduction. Both belts also share Late Cretaceous- Paleocene magmatism. Late Eocene- Oligocene high-grade metamorphism dominates Mogok belt; rapid cooling started at ~17 Ma and terminated before 10 Ma)

Mitchell, A.H.G. (2017)- Geological belts, plate boundaries and mineral deposits in Myanmar. Elsevier, p. 1-509.
(Comprehensive overview of geology, mineral potential and plate tectonics of Myanmar. Several of the structural belts of Myanmar continue into SW China and NW Thailand. With chapters on petroleum occurrences in C Burma Depression by M.F. Ridd and offshore petroleum geology by A. Racey)

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(online at: www.searchanddiscovery.com/documents/2017/30516myint/ndx_myint.pdf)
(Oil and gas in Myanmar currently limited to Tertiary petroleum systems, with bionic gas in Plio-Pleistocene reservoirs, thermogenic oil and gas in Eocene- Miocene reservoirs. Potential pre-Tertiary hydrocarbon plays in sizable Pre-Tertiary basins of Eastern Highlands)

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(online at: www.gsm.org.my/products/702001-101349-PDF.pdf)
(Cambrian- Silurian stratigraphy of area SE of Mandalay, S Shan State, E Myanmar. Incl. basal Silurian Orthoceras Beds, Silurian graptolite shales (Monograptus, Climacograptus) and Tentaculites beds))

Myint Thein (2015)- The Pre-Tertiary carbonate rocks exposed at the NE margin of the Central Myanmar Basin and their development history. J. Myanmar Geosciences Soc. 6, p. 1-22.
(Barber et al. 2017:) Permian limestone slivers in Sagaing fault zone and associated with ophiolites of C Ophiolite belt interpreted as displaced from W margin of Shan Plateau (but with 'Cathaysian' fusulinids??))

Myint Thein (2017)- Current tectonic activity along the Sagaing Fault, Myanmar indicated by alluvial fans. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics. Geol. Soc., London, Memoir 48, Chapter 20, p. 443-452.
(Young alluvial fans and fanglomerates along Sagaing fault zone commonly displaced laterally relative to source areas. Sediments on E side of fault mainly (tilted) Upper Irrawaddy series fluvial-alluvial sediments, locally with rich Lower Pleistocene vertebrate faunas equivalent of Djetis fauna of C Java. Younger fans mainly on W side of fault))

Myint Thein & M. Maung (2017)- The Eastern (Back-arc) Basin of Central Myanmar: Basement rocks, lithostratigraphic units, palaeocurrents, provenance and developmental history. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics. Geol. Soc., London, Memoir 48, Chapter 8, p. 169-183.
(On eastern part of Central Myanmar Basin on W Myanmar Block. Lower Eocene- Pliocene sediments unconformably over U Paleozoic carbonates/ Mesozoic ophiolitic sediments in E, and igneous rocks of Wuntho Salingyi Mesozoic arc in W. Sediment source from N)

Naing Maw Than, Kyi Khin & Myint Thein (2017)- Cretaceous geology of Myanmar and Cenozoic geology in the Central Myanmar Basin. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 7, p. 143-167.
(Review of stratigraphy of Cretaceous sediments in different tectonic belts of Myanmar. Thick Lower Cretaceous- Cenozoic succession in Myanmar Central Basin)

Naing, T.T., D.A. Bussien, W.H. Winkler, M. Nold & A. von Quadt (2014)- Provenance study on Eocene-Miocene sandstones of the Rakhine Coastal Belt, Indo-Burman Ranges of Myanmar: geodynamic implications. In: R.A. Scott et al. (eds.) Sediment provenance studies in hydrocarbon exploration and production. Geol. Soc., London, Spec. Publ. 386, p. 195-216.
(Indo-Burman Ranges accretionary wedge, resulting from subduction of Indian plate beneath Asian plate. Rakhine Coastal Belt thick stack of Cretaceous to Neogene turbiditic sediments and local thrust sheets of oceanic mafics and pelagic sediments. Eocene–Miocene sandstones provenance mainly from: (1) Late Cretaceous- Oligocene igneous rocks and (2) recycled orogenic terrane sources comprising ophiolitic rocks, from Burman margin and arc)

Ng, Y.N., G.H. Shi & M. Santosh (2016)- Titanite-bearing omphacitite from the Jade Tract, Myanmar: Interpretation from mineral and trace element compositions. J. Asian Earth Sciences 117, p. 1-12.

Ni, Y., T. Chen, C. Cai, G. Li, Y. Duan & J. Wang (1982)- The Silurian rocks in Western Yunnan. Acta Palaeontologica Sinica 21, p. 119-132.

Niko, S. & M. Sone (2015)- Gondwanan nautiloid cephalopods from the Ordovician of Myanmar. Paleontological Research 19, 4, p. 288-293.
(Two late M Ordovician nautiloids from Wunbye Fm in Shan Plateau of Myanmar (= Sibumasu Block): orthocerid Sibumasuoceras langkawiense (Kobayashi) and discosorid Tasmanoceras sp. Sibumasuoceras known only from Malaysia and Myanmar of Sibumasu Block. Tasmanoceras previously known only in Tasmania, implying Ordovician marine biotic linkage between Sibumasu and Tasmania)

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(online at: http://pahar.in/wpfb-file/1893-records-of-geological-survey-of-india-vol-26-pdf/)
(Brief report of first visit of western geologist to jade mines in NE Myanmar)

Noetling, F. (1896)- Uber das Vorkommen von Jadeit in Ober-Birma. Neues Jahrbuch Mineral. Geol. Palaont., 1896, 1, p. 1-17.
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('On the occurrence of jadeite in Upper Burma')

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(online at: http://pahar.in/wpfb-file/1889-records-of-geological-survey-of-india-vol-22-pdf/)

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(online at: https://books.googleusercontent.com/books/...)
(Oilfields, mud volcanoes, etc.. See also Pascoe 1912)

Noetling, F. (1900)- The Miocene of Burma. Verhandelingen Kon. Akademie Wetenschappen, Amsterdam (2), 7, 2, p. 1-131.
(online at: https://books.googleusercontent.com/books/...)

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(World's largest jadeite (NaAlSi2O6) deposit, with highest-quality jade, in Pharkant-Tawmaw Jade Mines Belt in N part of C Myanmar basin. N-S trending belt. Jadeitite in serpentinite melange, probably formed in subduction zone environment. Associated with albitites, chlorite schists, garnet-mica schists, graphite schists, glaucophane and epidote schists and amphibolite. Timing of jadeite formation still controversial: original oceanic crust may have formed in M Jurassic (163 Ma zircon age), ~146 ma (Late Jurassic) zircons may reflect age of subduction and high-P metamorphism. Rapid exhumation required for jadeite preservation)

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(online at: www.currentscience.ac.in/Volumes/112/10/2122.pdf)
(In Indo-Myanmar Ranges ophiolitic rocks in two parallel belts along E margin of Indian plate: (1) E belt through C Myanmar, Sumatra and Java; (2) W belt through Nagaland, Manipur, W Myanmar and Andaman islands. Wide compositional gap in Cr and Mg content of spinel in mantle peridotites of W Belt Manipur

Ophiolite Belt implies upper mantle melting in different tectonic settings: (1) mid-oceanic ridge (MOR) origin for high-Al spinel peridotites and (2) supra-subduction zone origin for high-Cr spinel peridotites)

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Pascoe, E.H. (1965)- Manual of the geology of India and Burma, 3rd Edition, 3 vols. Government of India Press, Calcutta, p. 1-2363.

Paumard, V., J. Bourget, B. Durot, S. Lacaze & T. Wilson (2018)- Full-volume interpretation methods: applications for quantitative seismic stratigraphy and geomorphology of the Lower Barrow Group, Northwest Australia. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts, 1, p. 1-6. *(Extended Abstract)*
(online at: www.publish.csiro.au/ex/pdf/ASEG2018abP009)
(On workflow of interpretation of ultra-high resolution seismic sequences (~40,000 yrs duration) in E Cretaceous prograding shelf-margin (Lower Barrow Gp) on NW Shelf of Australia)

Paumard, V., E. Zuckmeyer, R. Boichard, S.J. Jorry, J. Bourget, J. Borgomano, T. Maurin & J.N. Ferry (2017)- Evolution of Late Oligocene - Early Miocene attached and isolated carbonate platforms in a volcanic ridge context (Maldives type), Yadana field, offshore Myanmar. Marine Petroleum Geol. 81, p. 361-387.
(Stratigraphic evolution of Late Oligocene- E Miocene (Aquitanian) carbonate platforms of Yadana High, offshore Myanmar (N of Andaman spreading zone). Seven seismic sequences in three stages: (1) Chattian development of aggrading attached and isolated platforms; (2) platform emersion at Oligo- Miocene transition; (3) Aquitanian drowning of small buildup and km-scale backstepping on large platforms (3DF and Yadana). Aquitanian onset of renewed volcanic activity, followed by development of ~300-850m thick Burdigalian fringing carbonate reefs in ~6 My. Platforms developed on volcanic ridge of hotspot origin in Indian Ocean, not part of volcanic arc)

Pilgrim, G.E. (1925)- The Perissodactyla of the Eocene of Burma. Palaeontologia Indica, N.S., 8, p. 1-28.
(One of early discoveries of M Eocene mammals in Myanmar: a rhinocerotoid hoofed mammal)

Pilgrim G.E. & P. de Cotter (1916)- Some newly discovered Eocene mammals from Burma. Records Geol. Survey India, 47, p. 42-77.

Qi, M. H. Xiang, Z.Q. Zhong, H.N. Qiu, H. Wang, X.L. Sun & B. Xu (2013)- 40Ar/39Ar geochronology constraints on the formation age of Myanmar jadeitite. Lithos 162-163, p. 107-114.
(First direct 40Ar/39Ar dating of Myanmar jadeite from yielded plateau age of 123.9 ± 3.4 Ma, sodic-calcic amphibole associated with jadeite plateau age of 134.8 ± 1.4 Ma, and sodic amphibole of late amphibole rock plateau age of 92.7 ± 1.2 Ma. Indicate jadeitite formed during E Cretaceous from (135 Ma) high- P metasomatism, then experienced late Cretaceous (93 Ma) HP metasomatism)

Racey, A. (2017)- Petroleum exploration offshore Myanmar: history and future potential. In: Proc. SE Asia Petrol. Expl. Soc (SEAPEX) Exploration Conf. 2017, Singapore, Session 1, 4p. *(Extended Abstract)*
(Brief review of hydrocarbon exploration offshore Myanmar since 1969. Currently four producing gas fields (Zawtika, Shwe/Shwe Phyu/Mya, Yadana, Yetagun) with Aung Sinkha field under development)

Racey, A. (2017)- Exploration history and petroleum geology of offshore Myanmar. In: A.H.G. Mitchell, Geological belts, plate boundaries and mineral deposits in Myanmar, Elsevier, Chapter 12, p. 391-431.

Racey, A. & M.F. Ridd (2015)- Petroleum geology of the Rakhine region, Myanmar. In: A. Racey & M.F. Ridd (eds.) Petroleum geology of Myanmar, Chapter 9, Geol. Soc., London, Mem. 45, p. 93-108.
(Rakhine Basin off NW Myanmar (with Shwe gas field) also extends onshore under Rakhine coastal lowlands (with small oil fields). Rakhine Coastal Lowlands represents S-ward extension of hydrocarbon-bearing regions of Assam and E Bangladesh. Structurally complex onshore and offshore shelf area separated from poorly

structured deepwater area by dextral trench-parallel shear fault system which represents boundary between India Plate in W and Burma Platelet in E)

Rangin, C. (2017)- Active and recent tectonics of the Burma Platelet in Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, p. 53-64.
(Burma Platelet covers W part of Myanmar, between Indian Plate/ Bengal Basin in W and Sunda Plate in E. Boundaries are active Sagaing dextral strike-slip fault in E, and debatable Bengal Basin subduction zone in W. Non-rigid sliver plate with several right-lateral shear zones accommodated N-ward India/Sunda dextral wrench movement, with hyper-oblique convergence since E Cenozoic)

Rao, R.B.S.T.R. (1930)- The geology of the Mergui District. Geol. Survey India Mem. 55, p. 1-62.
(Early description of Carboniferous- Permian Mergui series of S Myanmar, with probable diamictites, overlain by Permian Moulmein Limestone with Schwagerina, Lonsdaleia salinaria, Productus sumatrensis, etc.)

Ridd, M.F. (2017)- Central Burma Depression and its petroleum occurrences. In: A.H.G. Mitchell, Geological belts, plate boundaries and mineral deposits in Myanmar, Elsevier, Chapter 12, p. 325-349.
(Synopsis of Ridd & Racey (2015) papers. All Myanmar onshore oil-gas fields are in 1200km long Central Burma Depression. Possibly oldest oil production/ mining in world. N-S trending basin with up to 15,000m of U Cretacous- Pleistocene sediments. Most productive fields Yenangyaung, Chauk and Yenangyat)

Ridd, M.F. (2017)- Karen-Tenasserim Unit. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 16, p. 365-384.
(Fault-bounded, N-S trending Karen-Tenasserim Unit of Bender (1983) W of Shan Plateau in southern Central Myanmar is direct continuation of 'Phuket -Slate Belt Terrane' of Ridd (2009) in Peninsular Thailand (and Tengchong Block to N?). With metamorphic rocks (incorrectly called Mogok Metamorphics), overlain by thick U Paleozoic Mergui Gp with intervals of ?Carboniferous- E Permian glacial diamictites and Permian 'Moulmein Limestone' (= Ratburi Lst of Peninsular Thailand; at Myeik/Mergui archipelago of S Myanmar with Lonsdaleia, Schwagerina, Productus sumatrensis, etc.). Aso with common granitoid intrusions. Often viewed as W part of Sibumasu Block, but interpreted as separate 'Phuket Terrane' or 'Irrawaddy block' (Mitchell 2012, 2015, Ridd 2016) (but no ophiolites found yet between them)

Rietschel, S. & M.H. Nitecki (1984)- Ordovician receptaculid algae from Burma. Palaeontology 27, 2, p. 415-420.
(online at: http://cdn.palass.org/publications/palaeontology/volume_27/pdf/vol27_part2_pp415-420.pdf)
(Fischerites burmensis n.sp. from M Ordovician Wunbye Fm in W part of S Shan State (first receptaculid described from SE Asia) (second is from W Thailand?; Kruse 1989))

Roeder, T. (2015)- Using detrital zircon geochronology to unravel the history of the Naga Hills Ophiolite. M.Sc. Thesis, University of Sydney, p. 1-76.
(online at: https://ses.library.usyd.edu.au/handle/2123/13535)
(Naga Hills with dismembered Neotethyan ophiolite suite, assigned Late Jurassic age based on radiolaria from red cherts above ophiolite (Baxter et al., 2011). Naga Hills Ophiolite unconformably overlain by India-derived Phokphur Fm polymict conglomerates (incl. ophiolite debris), with detrital zircon peak ages Jurassic (190-200), Permo-Triassic (200-300 Ma), Cambrian, Mesoproterozoic (~1000-1200 Ma) and Archean (~2700- 2750 Ma), suggestive of SW Australian provenance. Youngest zircon ages 90 Ma (=maximum age of Naga ophiolite emplacement)

Searle, M.P., C.K. Morley, D.J. Waters, N.J. Gardiner, U Kyi Htun., T.T. Nu & L.J. Robb (2017)- Tectonic and metamorphic evolution of the Mogok Metamorphic and Jade Mines Belts and ophiolitic terranes of Burma (Myanmar). In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 12, p. 261-293.
(Mogok High-T Metamorphic terrane along W margin of Sibumasu/ Shan Plateau in Myanmar (Burma) thought to be S-ward continuation of Lhasa block of S Tibet. S of Burma MMB may extend into tin granite province of Mergui coast and S to Phuket. MMB has little in common with Western granite belt of peninsula Malaysia,

dominated by Triassic tin-bearing biotite granites. Includes Jade Mines Belt (ophiolitic mantle rocks subjected to high-P metamorphism). Peak metamorphism time ~M-L Eocene (~43-33 Ma), rapid exhumation in late E Miocene (~16-22 Ma))

Sengupta, S., S.K. Acharyya, H.J. van den Hul & B. Chattopadhyay (1989)- Geochemistry of volcanic rocks from the Naga Hills Ophiolites, northeast India and their inferred tectonic setting. J. Geol. Soc., London, 146, p. 491-498.
(Highly disrupted and deformed slices of ophiolitic rocks occur in linear belt in Nagaland and Manipur, known as the Naga Hills Ophiolites. Principal rock types dunite, harzburgite, lherzolite, wehrlite, pyroxenite and mafic volcanics. Volcanics low-Ti and high-Ti groups, probably not cogenetic. Low-Ti group overlapping Mid-Ocean Ridge Basalt and island arc-like characteristics, and possibly suggest back-arc basin setting. High-Ti group similarities with within-plate basalts erupted at off-axis seamounts)

Shellnutt, J.G. (2014)- The Emeishan large igneous province: a synthesis. Geoscience Frontiers 5, 3, p. 369-394.
(online at: www.sciencedirect.com/science/article/pii/S1674987113001072)
(Late Permian Emeishan large igneous province in SW China covers W margin of Yangtze Block (S China Block) and E Tibetan Plateau, with displaced units in N Vietnam (Song Da zone). Contains base metal deposits and is contemporaneous with late Capitanian (~260 Ma) mass extinction. Mainly flood basalts, but also ultramafic and silicic volcanic rocks. Three nearly concentric zones with thicker crust from inner to outer zone. Age of the ELIP constrained to interval of 3 Myrs or less. Uncertainty whether magmas derived from subcontinental lithospheric mantle or asthenosphere/ mantle plume sources or both. ELIP likely derived from short-lived, plume-like upwelling of mantle-derived magmas)

Shellnutt, J.G. (2015)- Igneous Rock associations 16. The Late Permian Emeishan Large Igneous Province. Geoscience Canada 42, p. 169-180.
(online at: https://journals.lib.unb.ca/index.php/GC/article/download/21548/26356)
(Review of Late Permian Emeishan large igneous province (ELIP) covers W margin of Yangtze Block and Tibetan plateau of SW China, with displaced correlative units in N Vietnam (Song Da zone). Contemporaneous with Late Capitanian mass extinction (260 Ma) erupted in <3 Myrs. Mainly flood basalts, but also also picritic and silicic volcanic rocks. Considered to be mantle plume-derived, albeit with some crustal contamination)

Shellnutt, J.G., S.W. Denyszyn & R. Mundil (2012)- Precise age determination of mafic and felsic intrusive rocks from the Permian Emeishan large igneous province; SW China. Gondwana Research 22, 1, p. 118-126.
(New zircon CA-TIMS U-Pb from intrusive rocks of Panxi region (Inner Zone) of M-L Permian ELIP yielded ages between >257 Ma and ~260 Ma, consistent with estimates from magneto-biostratigraphic data)

Shellnutt, J.G. & B.M. Jahn (2011)- Origin of Late Permian Emeishan basaltic rocks from the Panxi region (SW China): implications for the Ti-classification and spatial-compositional distribution of the Emeishan flood basalts. J. Volcanology Geothermal Research 199, p. 85-95.

Shellnutt, J.G., T. Usuki, A.K. Kennedy & H.Y. Chiu (2015)- A lower crust origin of some flood basalts of the Emeishan large igneous province, SW China. J. Asian Earth Sci. 109, p. 74-85.
(Neoproterozoic (i.e. ~750-850 Ma) zircons in Late Permian Emeishan basalts indicates either assimilation of older material during emplacement or rocks could be derived from mafic Neoproterozoic precursor, like Neoproterozoic Kangdian basalts)

Shellnutt, J.G. & K.L. Wang (2014)- An ultramafic primary magma for a low Si, high Ti-Fe gabbro in the Panxi region of the Emeishan large igneous province, SW China. J. Asian Earth Sci. 79, A, p. 329-344.
(Kelang gabbro (256± 3 Ma) in contact with syenite of Late Permian (~260 Ma) Baima igneous complex of Emeishan Large Igneous Province. Gabbro may be uppermost portion of large mafic-ultramafic intrusion unrelated to Baima igneous complex)

Shen, S., Q. Feng, Q. Wei, Z. Zhang & H. Zhang (2006)- A study on the geochemical characteristics of Upper Permian continental marginal arc volcanic rocks in the northern segment of South Lancangjiang Belt. Chinese J. Geochemistry 25, 3, p. 216-222.
(Geochemical characteristics of U Permian continental marginal arc volcanics from Xiaodingxi and Zangli on the E side of Yunxian-Lincang granite. Dominated by basalt-andesite-dacite. Lancangjiang Belt, together with ocean-ridge and ocean-island volcanic rocks and ophiolites in Changning-Menglian Belt, indicate Lancangjiang oceanic crust (Paleotethys) subducted E-wards)

Shen, S., Q. Feng, Q. Wei & Z. Zhang (2007)- Newly developed evidence for the original Tethysan island-arc volcanic rocks in the southern segment of the South Lancangjiang Belt. Chinese J. Geochemistry 26, 1, p. 91-97.
(Pre-Ordovician metamorphic volcanic rocks in Huimin-Manlai region of Yunnan Province represent Tethysan island-arc volcanic rocks)

Shen, S.Z., G.R. Shi & K. Zhu (2000)- Early Permian brachiopods of Gondwana affinity from the Dingjiazhai Formation of the Baoshan block, western Yunnan, China. Rivista Italiana Paleont. Stratigr. 106, 3, p. 263-282.
(online at: https://riviste.unimi.it/index.php/RIPS/article/download/6146/6108)
(28 species and 3 assemblages of E Permian brachiopods in Dingjiazhai Fm of Baoshan block. In ascending order: (A) Bandoproductus qingshwigouensis- Marginifera semigrariosa (lower member with dropstones; Asselian), (B) Punctocyrtella australis- Punctospirifer afghanus (latest Asselian- E Sakmarian) and (C) Callytbarrella dongsbanpoensis (Late Sakmarian-Artinskian). Strong Gondwanan affinity)

Shi, G.H., G.E. Harlow, J. Wang, J. Wang, E. Ng, X. Wang, S. Cao & W. Cui (2012)- Mineralogy of jadeitite and related rocks from Myanmar: a review with new data. European J. Mineralogy 24, 2, p. 345-370.
(Jadeitite composed almost entirely of jadeite and related pyroxene. It is found in subduction channel serpentinite melange associated with High P/ low T metamorphosed rocks, but generally rarer than eclogite or blueschist. Late Jurassic jadeitite from Myanmar Jade Mine Tract at W side of Sagaing Fault highly diverse mineralogy, with >30 minerals: jadeite, omphacite, kosmochlor, etc. Primary jadeitite veins occur in serpentinite with albitite and/or amphibolite boundaries. At least two stages of jadeitization identified. Late-stage zeolites, pectolite, hyalophane, etc. formed at lower P and T. Jadeite-forming fluids rich in Na, Al, Ba, Sr and Ca. Most rocks in serpentinite melanges subject to infiltration and potential replacement by jadeitite or reaction with jadeitite)

Shi, G.U., P. Tropper, W. Cui, J. Tan & C. Wang (2005)- Methane (CH4)-bearing fluid inclusions in the Myanmar jadeitite. Geochemical J. 39, 6, p. 503-516.
(Fluid inclusions in high-pressure jadeitites from famous jadeite tract of N Myanmar mostly H2O (87-94%) and methane (CH4). Stable isotope ratios of CH4 indicative of abiogenic thermal maturation, probably from subducted organic carbon in paleosubduction zone. CH4 may be stable to at least upper 20 km of subduction zone where jadeitite veins formed under low T / high-P conditions)

Shi, Y., J.L. Anderson, Z. Wu, Z. Yang, L. Li & J. Ding (2016)- Age and origin of Early Paleozoic and Mesozoic granitoids in Western Yunnan Province, China: geochemistry, SHRIMP zircon ages, and Hf-in-zircon isotopic compositions. J. Geology 124, 5, p. 617-630.
(E Paleozoic magmatism in Baoshan block (granitoids with zircon Pb/U ages of ~481, 493 Ma and indications of crustal melting/reworking. Tengchong block Late Triassic S-type granites with zircons of 216-226 Ma, probably in post-collisional tectonic setting. Late Early Cretaceous (118 Ma) S-type granite; emplacement may be related to closure of Neotethys ocean)

Shi, Y., H. Huang & X. Jin (2017)- Depauperate fusulinid faunas of the Tengchong Block in western Yunnan, China, and their paleogeographic and paleoenvironmental indications. J. Paleontology 91, 1, p. 12-24.
(online at: www.cambridge.org/core/journals/journal-of-paleontology/article/depauperate-fusul...)
(M Permian fusulinids from Tengchong Block, W Yunnan, China (= part of Sibumasu) dominated by Chusenella, Nankinella and Schwagerina. Low diversity through E-M Permian and paucity of M Permian

neoschwagerinids and verbeekinids in block confirm Gondwana-affinity and possibly relatively low temperature of seawater. Depauperate assemblages of limited number of species with abundant individuals)

Shi, Y., H. Huang, X. Jin & X. Yang (2011)- Early Permian fusulinids from the Baoshan Block, Western Yunnan, China and their paleobiogeographic significance. J. Paleontology 85, 3, p. 489-501.
(Sakmarian-Artinskian fusulinids from N and S Baoshan and W Yunnan, dominated by Pseudofusulina and Eoparafusulina spp. and similar to those from C Pamir, S Afghanistan, E-C Iran, C Oman, E Hindu Kush and N Karakorum)

Shoup, R.C., A.J. Filipov & M. Hiner (2017)- Geological interpretation of the reservoir and pay distribution of the G3.2 and G5.2 series of the Shwe Field, Myanmar. AAPG/EAGE/MGS 3rd Oil & Gas Conf., Yangon 2017, Search and Discovery Art. 20401, 33p.
(online at: www.searchanddiscovery.com/documents/2017/20401shoup/ndx_shoup.pdf)
(Offshore Myanmar Shwe, Shwe Phyu, and Mya gas fields discovered between 2004-2006 in Blocks A1 and A3. in Pliocene deepwater channel sandstones, sourced from NW. Gas biogenic in origin. Recoverable reserves for Shwe Field 2.9- 4.7 TCF, Shwe Phyu 0.4- 0.9 TCF and Mya 1.3- 2.2 TCF)

Singh, A.K., S.L. Chung, R.K. Bikramaditya & H.Y. Lee (2017)- New U-Pb ages of plagiogranites from the Nagaland-Manipur ophiolites, Indo-Myanmar orogenic belt., NE India. J. Geol. Soc., London, 174, 1, p. 170-179.
(E Cretaceous U-Pb zircon ages of plagiogranites from Nagaland-Manipur Ophiolites in Indo-Myanmar orogenic belt (between 116.4 ± 2.2 and 118.8 ± 1.2 Ma; Aptian). Ophiolite overlain by Late Cretaceous pelagic limestones- to Eocene flysch. Ages coeval and geochemically comparable with Neo-Tethyan ophiolites in Indus-Yarlung-Tsangpo Suture to NW. To S ophiolite belt continues to Andaman-Nicobar island arc and Mentawai Islands of outer Indonesian island arc)

Singh, A.K., R. Nayak, S. Khogenkumar, K.S.V. Subramanyam, S.S. Thakur, R.K.B. Singh & M. Satyanarayanan (2016)- Genesis and tectonic implications of cumulate pyroxenites and tectonite peridotites from the Nagaland-Manipur ophiolites, Northeast India: constraints from mineralogical and geochemical characteristics. Geological J. 52, 3, p. 415-436.
(Ultramafic sequence of Nagaland- Manipur Ophiolite generated at mid-oceanic ridge tectonic setting, close to E boundary of Indian passive margin, then thrust over continental margin of Indian Plate to W during collision with Myanmar Plate)

Singh, A.K., N.I. Singh, L.D. Devi & R.K.B. Singh (2012)- Geochemistry of mid-ocean ridge mafic intrusives from the Manipur Ophiolitic Complex, Indo-Myanmar Orogenic Belt, NE India. J. Geol. Soc. India 80, 2, p. 231-240.

Singh, A.K., V.C. Tewari, A.N. Sial, P.P. Khanna & N.I. Singh (2016)- Rare earth elements and stable isotope geochemistry of carbonates from the melange zone of Manipur ophiolitic Complex, Indo-Myanmar orogenic belt, Northeast India. Carbonates and Evaporites 31, 2, p. 139-151.
(Carbonates in Neotethyan melange zone of Manipur Ophiolitic complex (= NE India-Myanmar plates collision zone/ accretionary prism). Melange with Late Cretaceous (Santonian- Maastrichtian) pelagic limestones that originally formed cover of ophiolitic oceanic crust, also Eocene flysch and younger molasse)

Sloan, R.A., J.R. Elliott, M.P. Searle & C.K.Morley (2017)- Active tectonics of Myanmar and the Andaman Sea. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, p. 19-52.
(online at: http://mem.lyellcollection.org/content/memoirs/48/1/19.full.pdf)
(Active tectonics of Myanmar controlled by combination of: (1) continuing N-wards penetration of India into Asia; (2) active shear along right-lateral Sagaing strike-slip fault, and region to W; (3) active E-dipping Burma Seismic Zone indicating subduction of downgoing plate to >150 km; (4) CW rotation around E Himalayan Syntaxis and series of arcuate strike-slip faults in N Shan Plateau; and (5) active extensional and strike-slip tectonics in back-arc Andaman Sea)

Soe A.N., Myitta, S.T. Tun, A.K. Aung, T. Thein, B. Marandat, S. Ducrocq & J.J. Jaeger (2002)- Sedimentary facies of the late Middle Eocene Pondaung Formation (central Myanmar) and the palaeoenvironments of its anthropoid primates. Comptes Rendus Palevol 1, 3, p. 153-160.
(Primate-bearing Pondaung Fm in NW part of C Myanmar mainly composed of cyclic sequences of sandstones and variegated clays, deposited in fluvio-deltaic environment. Anthropoid primate remains in swale-fill sediments, sometimes in carbonate nodules of pedogenetic origin and in small crevasse channel deposits of U Pondaung Fm)

Soe Min, I.M. Watkinson, Soe Thura Tun, Win Naing & Tin Lwin Swe (2017)- The Kyaukkyan Fault, Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics. Geol. Soc., London, Memoir 48, Chapter 21, p. 453-471.
(Kyaukkyan Fault active N-S dextral strike-slip structure across W Shan Plateau, parallel to and ~100-150 km E of central Sagaing Fault. Probable Late Oligocene- M Miocene onset of dextral shear)

Stamp, L.D. (1934)- Natural gas fields of Burma. American Assoc. Petrol. Geol. (AAPG) Bull. 18, 3, p. 315-326.

Stojanovic, D., J.C. Aitchison, S. Kachovich, K. Lokho & T.R. Ireland (2016)- New age constraints for the Manipur ophiolitic melange: insights into Tethyan ophiolites of the Indo-Myanmar Range. American Geoph. Union (AGU), Fall General Assembly 2016, Abstract id. T11A-2595, 1p. *(Abstract only)*
(Manipur Ophiolite Complex disrupted belt of ophiolitic melange along border ranges between Myanmar and NE Indian states Manipur and Nagaland. Ranges formed through collision of Indian plate and displaced elements of Sibumasu terrane that have been sinistrally displaced >450 km along Asian margin by Sagaing fault (Neotethys suture). Well-preserved Lower Cretaceous radiolarian assemblages in green ribbon chert blocks (= minimum age of underlying ophiolitic ocean floor))

Suzuki, H., M. Maung, Zaw Win, T. Tsubamoto, M. Maung, N. Egi, M. Takai & N. Shigehara (2006) Stratigraphic positions of the Eocene vertebrate localities in the Paukkaung area (Pondaung Formation, Central Myanmar). Asian Paleoprimatology 4, p. 67-74.
(online at: https://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/199770/1/aspp_04_067.pdf)
(Detailed survey of ~275m thick Upper Member of Eocene Pondaung Fm W of Paukkaung, to clarify stratigraphic relationship among the localities of fossil vertebrates. Most localities (Pkl, Pk2, Pk3, Pk4, Pk5 and Pk8) in single claystone (Ayoedawpon Taung Claystone), which overlies widely traceable Ayoedawpon Taung Sst. Localities Pk9 and and Pk12 below and above this claystone)

Suzuki, H., M. Maung, N.S. Aung & N. Shigehara (2006)- Lithostratigraphy of the Pondaung Formation (Eocene) between Tabyin and Kyauktakha to the west of Pauk, Central Myanmar. Asian Paleoprimatology 4, p. 75-97.
(online at: https://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/199769/1/aspp_04_075.pdf)
(Pondaung Fm along Tabyin-Kyauktakha route composed of sandstone, siltstone and claystone with minor coal, acidic tuff and pebbly sandstone. Thickness~1170m. Upper Member mainly sandstone that, unlike in areas of Pale and Myaing, did not preserve fossil vertebrates)

Swe, Y.M., C.C. Aye & K. Zaw (2017)- Gold deposits of Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 25, p. 557-572.
(>300 gold occurrences in Myanmar, in 6 main associations: porphyry and epithermal deposits in Late Cretaceous- Paleogene Central Magmatic Arc; orogenic gold; skarn, sediment-hosted, Slate Belt-hosted and quartz veins in ophiolite-greenschist units)

Takai, M., H. Saegusa, Thaung-Htike & Z.M.M. Thein (2006)- Neogene mammalian fauna in Myanmar. Asian Paleoprimatology 4, p. 143-172.
(online at: https://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/199765/1/aspp_04_143.pdf)

(Review of Neogene mammalian fossils from E-M Miocene Pegu beds (12 mammal genera) and Late Miocene-Pliocene Irrawaddy beds (14 mammal families) along Irrawaddy River, Myanmar. Although fossils scarce, Myanmar faunas greater similarity to S Asian(India) fauna than to E Asian (China) fauna until Pliocene)

Takai, M., C. Sein, T. Tsubamoto, N. Egi, M. Maung & N. Shigehara (2005)- A new eosimiid from the latest middle Eocene in Pondaung, Central Myanmar. Anthropologal Science 113, p. 17-25.
(online at: https://www.jstage.jst.go.jp/article/ase/113/1/113_1_17/_pdf)
(New eosimiid primate, Eosimias paukkaungensis from latest M Eocene of Pondaung. Mandibular fragments larger than homologues of Eosimias species from China, but smaller than Bahinia pondaungensis)

Takai, M. & N. Shigehara (2004)- The Pondaung Primates, enigmatic ñpossible anthropoidsò from the Latest Middle Eocene, Central Myanmar. In: C.F. Ross & R.F. Kay (eds.) Anthropoid origins: new visions, Kluwer/ Plenum, New York, p 283-321.
(Recent discoveries of 'possible anthropoids' from M Eocene from China, Myanmar and Thailand suggest 'protoanthropoids' may have originated in E Asia, not Africa)

Takai, M., N. Shigehara, T. Tsubamoto, N. Egi, A.K. Aung, T. Thein, A.N. Soe & S.T. Tun (2000)- The latest Middle Eocene primate fauna in the Pondaung area, Central Myanmar. Asian Paleoprimatology, Volume 1, Primate Research Institute, Kyoto University, Inuyama, Japan, p. 7-28.
(Four M Eocene primate taxa known from Pondaung Fm of Burma, incl. Pondaungia cotteri (discovered in 1914), Amphipithecus mogaungensis (1923), Bahinia pondaungensis (1998), and unnamed new taxon (1998))

Tarrass, I., P. Dattilo, P. Bourguignon, S. Van De Beuque & J.P. Thiriet (2017)- Turbidite systems of the East Andaman Basin (Myanmar): impacts on exploration. In: SE Asia Petroleum Expl. Soc. (SEAPEX) Exploration Conf. 2017, Singapore, 2p. *(Abstract)*
(Andaman Sea series of pull-apart basins formed in right lateral strike slip regime in back-arc setting. Volcanic basement overlain by Eocene and younger carbonate and clastic sequences. Oligocene- E Miocene shelf clastics sourced from E, with carbonate platforms and reefs mainly on W volcanic highs. Huge siliciclastic succession related to Irrawaddy Delta from U Miocene-present. Large slope channels, extending in abyssal plain)

Thein, T. (2004)- Review of the large-bodied Pondaung primates of Myanmar. In: C.F. Ross & R.F. Kay (eds.) Anthropoid origins: new visions, Kluwer/ Plenum, New York, p. 219-247.
(M Eocene Pondaung Fm in NW C Myanmar has been known for mammal fossils since 1916. Fossils include artiodactyls (Anthracotheriidae) and perissodactyls (Amynodontidae), carnivores, and primates. Primates from represented by Pondaungia cotteri Pilgrim, 1927, Amphipithecus mogaungensis Colbert, 1937, Bahinia pondaungensis Jaeger et al., 1999, and Myanmarpithecus yarshensis)

Thein, Z.M.M., T. Htike, A.N. Soe, C. Sein, M. Maung & M. Takai (2017)- A review of the investigation of primate fossils in Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 9, p. 185-206.
(Fossil primates in latest Middle Eocene Pondaung Fm in C Myanmar. Two large-bodied primates, Pondaungia cotteri and Amphipithecus mogaungensis. Some authorities believed they are primitive anthropoids, others regarded them as adapiforms or non-primate. Also rare primate fossils from Late Neogene Upper Irrawaddy Beds, dominated by proboscideans and bovids)

Thornton, S.E. (2015)- The history of oil exploration in the Union of Myanmar. AAPG/SEG Int. Conf. Exhib., Melbourne 2015, Search and Discovery Art. 10807, 34p. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2015/10807thornton/ndx_thornton.pdf)
(After centuries of oil mining in hand-dug wells in C Burma Basin first oil well drilled by Burmah Oil Company in 1899. Foreign oil companies activity since 1988 led to several large offshore gas discoveries)

Thornton, S.E. (2016)- Regional tectonics, structure and history of petroleum exploration in the Union of Myanmar (nee Burma). Houston Geol. Soc. Bull., December 2016, p. 23-29.

Thu, K. & K. Zaw (2017)- Gem deposits of Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, p. 497-529.

Tin Aung Myint, Than Than Nu & Min Aung (2014)- Precious and base metal mineralization in Kwinthonze-Nweyon area, Singu and Thabeikkyin Townships, Mandalay Region, Myanmar. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 343-354.
(Gold-silver and base metal mineralization in Kwinthonze-Nweyon area in Mogok Metamorphic Belt)

Tsubamoto, T. (2000)- The Pondaung mammal fauna: an analysis of a terrestrial mammal fauna in the latest Middle Eocene of central Myanmar (Southeast Asia). Doct. Thesis, Kyoto University, 215p.
(online at: http://earth.sci.ehime-u.ac.jp/~tsubamoto/TBM_Papers/Tsubamoto_2001_PhD_Kyoto_Univ.pdf)
(M Eocene (37.2 ± 1.3 Ma) Pondaung fauna from C Myanmar with six orders of mammals: Primates 4 genera), Creodonta (2 genera), Rodentia (1 genus), Artiodactyla (4 genera), Perissodactyla (9 genera), and Ungulata (1 genus). All primates considered to be primitive anthropoids. Anthracotheres all one genus (Anthracotherium), with 4 species (A. pangan, A. rubricum, A. birmanicus, A. tenuis))

Tsubamoto, T., N. Egi, M. Takai, T. Htike & Z.M.Maung Thein (2013)- A new genus and species of bunodont Artiodactyl from the Eocene Pondaung Formation, Myanmar. Paleontological Research 17, 4, p. 297-311.

Tsubamoto, T., N. Egi, M. Takai, C. Sein & M. Maung (2005)- Middle Eocene ungulate mammals from Myanmar: a review with description of new specimens. Acta Palaeontologica Polonica 50, 1, p. 117-138.
(online at: www.app.pan.pl/archive/published/app50/app50-117.pdf)
(Two new ungulate taxa from M Eocene Pondaung Fm. Pondaung ungulate fauna now 29 species, mainly artiodactyls and perissodactyls. Paleoenvironment of fauna was humid forested/woodland vegetation with large rivers, located not far from E Tethyan Sea. Relatively high endemism at generic level)

Tsubamoto, T., T. Htike, Z.M. Maung Thein, N. Egi, Y. Nishioka & M. Takai (2012)- New data on the Neogene anthracotheres (Mammalia, Artiodactyla) from central Myanmar. J. Vertebrate Paleontology 32, 4, p. 956-964.
(Anthracotheres from Neogene in C Myanmar with 4 species of anthracotheres: Microbunodon silistrensis from M Miocene; Microbunodon milaensis and Merycopotamus dissimilis from latest Miocene- Pliocene)

Tsubamoto, T., Z.M. Maung Thein, N. Egi, T. Nishimura, T. Htike & M. Takai (2011)- A new anthracotheriid Artiodactyl from the Eocene Pondaung Formation of Myanmar. Vertebrata Palasiatica 49, p. 85-113.
(online at: http://www.ivpp.cas.cn/cbw/gjzdwxb/xbwzxz/201102/P020110216367564823071.pdf)
Mandible and molars of new anthracotherid from M Eocene Upper Pondaung Fm (~38 Ma), C Myanmar, Myaingtherium kenyapotamoides. Some similarities of M3 molar with 'Anthracothema' verhoeveni Von Koenigswald from Timor)

Tsubamoto, T., M. Takai, N. Shigehara, N. Egi, S.T. Tun, A.K. Aung, M. Maung, T. Danhara & H. Suzuki (2002)- Fission-track zircon age of the Eocene Pondaung Formation, Myanmar. J. Human Evolution 42, p. 361-369.
(Pondaung Fm in C Myanmar with >20 mammal genera. ~2000m thick freshwater deposits, overlying and partially interfingering with Tabyin Fm (with M Eocene Nummulites acutus). Overlain by marine Yaw Fm)with Late Eocene Nummulites yawensis, etc.). One tuff from upper Pondaung Fm with fission track age from 75 zircons of 37.2 ± 1.3 Ma (M-L Eocene boundary))

Tsubamoto, T., S.T. Tun, N. Egi, M. Takai, N. Shigehara, Aung N. Soe, K.A. Aung & T. Thein (2003)- Reevaluation of some ungulate mammals from the Eocene Pondaung Formation, Myanmar. Paleontological Research 7, 3, p. 219-243.

Tun, Soe Thura & I.M. Watkinson (2017)- The Sagaing Fault, Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 19, p. 413-441.
(N-S trending and relatively straight Sagaing Fault across Myanmar 1500 km long active strike-slip fault that accommodates more than half of right-lateral motion between Sundaland and India, within diffuse plate

boundary along E margin of India, which occupies much of Myanmar. Ridge-subduction transform linking major thrust systems in N (E Himalaya) to Andaman Sea spreading centre S. N-ward younging strike-slip segments. Little evidence for pre-M Miocene movement, but more diffuse dextral slip possibly accommodated 300-700km of offset since Eo-Oligocene)

Udchachon, M., P. Charusiri, H. Thassanapak & C. Burrett (2018)- A new section of Lower Palaeozoic rocks in Kayin State (Southeast Myanmar). Proc. Geologists Assoc. 129, 2, p. 215-226.
(Lower Paleozoic rocks mapped in Kayin State (Sibuma Block). Three new formations with thickness >900 m, Lower siliciclastics overlain by predominantly carbonate with M Ordovician conodonts. Older formations probable correlate to S Shan State of Myanmar and Lower Ordovician siliciclastics of W Thailand. Folds in Lower Paleozoic rocks overturned to NE; deformation in one major phase between Tournaisian- E Permian)

Uddin, A., W.E. Hames & K.M. Zahid (2010)- Laser 40Ar/39Ar age constraints on Miocene sequences from the Bengal basin: implications for Middle Miocene denudation of the eastern Himalayas. J. Geophysical Research, Solid Earth 115, 7, B07416, p. 1-9.
(Orogenic sedimentation had begun in Bengal basin by E Miocene. Laser 40Ar/39Ar age determinations of detrital muscovite grains from E-M Miocene Bhuban Fm show ages from ~12 Ma- 516 Ma, suggesting derivation from a combination of sources. Modes of ~16, 18, 26 and 40 Ma most consistent with unroofing of Higher Himalayas since E Miocene. Detrital ages of ~16 and 22 Ma most prominent in highest levels, consistent with M Miocene unroofing of crystalline rocks of E Himalayas)

Uddin, A. & N. Lundberg (1998)- Unroofing history of the eastern Himalaya and the Indo-Burman ranges; heavy-mineral study of Cenozoic sediments from the Bengal Basin, Bangladesh. J. Sedimentary Res. 68, 3, p. 465-472.
(U Eocene- Neogene fill of Bengal basin provides unroofing history of E Himalaya and Indo-Burman ranges. Quartzose sandstones of Eocene-Oligocene Fms only 0.2% heavy minerals, most likely sourced from Indian craton immediately to W. E Miocene sandstones of Surma Gp contain more heavy-minerals, indicating mostly metamorphic source rocks. U Miocene U Surma Gp also abundant blue-green amphibole, orthopyroxene, and sparse chromite, suggesting deeper exhumation, of high P metamorphic and ophiolitic rocks)

Uddin, A. & N. Lundberg (1998)- Cenozoic history of the Himalayan-Bengal system: sand composition in the Bengal Basin, Bangladesh. Geol. Soc. America (GSA) Bull. 110, 4, p. 497-511.

Ueno, K., Myint Thein & A.J. Barber (2016)- Permian fusuline fauna from the Minwun Range, Central Myanmar. In: Development of the Asian Tethyan Realm: genesis, process and outcomes, 5th Int. Symposium Int. Geoscience Program (IGCP) Project 589, Yangon, p. 6. *(Abstract only)*
(online at: http://igcp589.cags.ac.cn/5th%20Symposium/Abstract%20Volume.pdf)
(Fault-bounded blocks of Permian limestones in Sagaing Fault Zone at Minwun Range with fusulinid faunas containing abundant Chalaroschwagerina, together with Pseudofusulina kraftii, Levenella, Pamirina, Schubertella, Toriyamaia, Minojapanella, and Pseudoreichelina. Age late Yakhtashian (late E Permian) age and Tethyan paleobiogeographic affinity)

U Ko Ko (2016)- Structural observations along the Salin-Pyay Pleistocene strike-slip deformation belt. 2nd AAPG/EAGE/MGS Conference Unlocking the complex geology of Myanmar, Yangon 2015, Search and Discovery Art. 10845, 17p. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2016/10845ko/ndx_ko.pdf)
(Major Pleistocene strike-slip deformation over 200- 300 km wide belt of Myanmar sedimentary basins between Sagaing fault and escarpment between shallow and deep waters of Rakhine Yoma foldbelt. Tied toN-ward translational subduction of India below SE Asia plates)

Ukstins Peate, I. & S.E. Bryan (2008)- Re-evaluating plume-induced uplift in the Emeishan large igneous province. Nature Geoscience 1, p. 625-629.
(Mantle plumes should generate broad domal uplift (>1000 km wide, 500-1000m high) preceding volcanism in large igneous provinces. Most of Emeishan large igneous province in SW China emplaced at sea level, with no

evidence for dynamic pre-volcanic uplift. Any positive relief that developed more likely result of formation of volcanic edifice and rapid accumulation of volcanic pile)

Ukstins Peate, I. & S.E. Bryan (2009)- Pre-eruptive uplift in the Emeishan? Nature Geoscience 2, p. 531-532.
(Part of discussion-reply with He et al. 2009, who argue for subaerial volcanism, as demonstrated by plant fossils (Cladophlebis permica))

Von Koenigswald, G. (1965)- Critical observations upon the so-called higher primates from the upper Eocene of Burma, Proc. Kon. Nederl. Akademie Wetenschappen 68, p. 165-167.

Vredenburg, E. (1921)- Results of a revision of some portions of Dr. Noetling's second monograph on the Tertiary fauna of Burma. Records Geol. Survey India 51, 3, p. 224-302.
(online at: https://ia801608.us.archive.org/6/items/in.ernet.dli.2015.20723/2015.20723.Records-Of-The-Geological-Survey-Of-India--Vol-51.pdf)
(Revisions of identifications of Noetlingof molluscs from post-Eocene beds of Myanmar)

Wandrey, C. J. (2006)- Eocene to Miocene composite Total Petroleum System, Irrawaddy-Andaman and North Burma geologic provinces, Myanmar. U.S. Geol. Survey Bull. 2208-E, p. 1-26.
(online at: https://pubs.usgs.gov/bul/2208/E/pdf/B2208-E.pdf)
(Eocene-Miocene petroleum system produced most hydrocarbons in C Burma Basin and Irrawaddy Delta. Structural traps predominant, but stratigraphic traps likely in both ancient and modern delta environments. Mean undiscovered resources estimated at 725 MMB Oil and 20.5 TCFG gas)

Wang, M. & D. Cheong (2016)- Reconstruction of burial history and analysis of the hydrocarbon potential using sedimentary modeling the middle Bengal Fan, Myanmar. Geosciences J. 20, 6, p. 813-825.
(Bengal Fan 3 stages of evolution: I (4.5-1.81 Ma; low sedimentation and subsidence), II (1.81-0.79 Ma; highest sedimentation and rapid subsidence), and III (0.79-0 Ma; high sedimentation, slowest subsidence). Biogenic gas typical hydrocarbon in area; generation and migration probably immediately after deposition of Unit 2. Thermogenic hydrocarbon potential low due to relatively low T and short burial)

Wang, Y. & Y. Zhang (2010)- Llandovery sporomorphs and graptolites from the Manbo Formation, the Mojiang County, Yunnan, China. Proc. Royal Society (London), B, 277, p. 267-275.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2842664/)
(E Silurian (Llandoverian) sporomorphs and graptolites from Manbo Fm, Mojiang area, W Yunnan (part of Indo-China plate in Palaeozoic). Sporomorphs suggest South China and Indo-China paleo-plates may have been in close proximity in Llandoverian; both closely related to Gondwanaland)

Wen, Z., N. Fang & R. Xin (2016)- Meso-Tethys and Neo-Tethys tectonic evolution in Myanmar and adjacent areas. In: Development of the Asian Tethyan Realm: genesis, process and outcomes, 5th Int. Symposium Int. Geoscience Program (IGCP) Project 589, Yangon, p. 55. *(Abstract only)*
(online at: http://igcp589.cags.ac.cn/5th%20Symposium/Abstract%20Volume.pdf)
(Two Tethyan suture zones inMyanmar: (1) Mesotethys Taguang-Myitkyina suture (equivalent of Bangong-Nujiang suture in Tibetan Plateau): ophiolites formation in M Jurassic, M Triassic-E Jurassic subduction under Sibumasu block, and M Jurassic-M Cretaceous West Burma block collision with Sibumasu; (2) Neotethys Yarlung-Tsangpo suture (continuation of Yarlung-Tsangpo suture in Tibetan Plateau): Indo-Burma Range ophiolites formation in E Cretaceous, Late Jurassic-E Cretaceous subduction under West Burma block and Late Cretaceous-Tertiary closing of ocean)

Xu, Y.G. & B. He (2007)- Thick, high-velocity crust in the Emeishan large igneous province, SW China: evidence for crustal growth by magmatic underplating or intraplating. Geol. Soc. America (GSA), Special Paper 430, p. 841-858.

Yao, W., L. Ding, F. Cai, H. Wang, Q. Xu & Than Zaw (2017)- Origin and tectonic evolution of upper Triassic turbidites in the Indo-Burman ranges, West Myanmar. Tectonophysics 721, p. 90-105.

(Petrography, detrital zircon ages and Hf isotopic data from Late Triassic Pane Chaung Fm exposed in Indo-Burman Ranges (W Burma Block). With Carnian-Norian Halobia molluscs; maximum depositional ages ~233-206 Ma. Detrital zircon age populations and Hf values interpreted to be derived from W Papua region. Triassic zircons (mainly ~210-250 Ma) probably from contemporaneous volcanic source. Older populations (~600-450 Ma, 1250-900 Ma and Archean from orogenic belts and cratons in Australia. Zircon ages different from similar-aged strata in Indochina and Sibumasu, but comparable to NW Australia and Greater India. Probably deposited in Late Triassic submarine fan along N margin of Australia)

Yenne, K.A. (1988)- Hydrocarbon (oil, gas and coal) prospect for Burma. U.S. Geol. Survey, Open-File Report 88-402, p. 1- 25.
(online at: https://pubs.usgs.gov/of/1988/0402/report.pdf)
(Brief review of oil occurrences in C Myanmar onshore, where oil has been extracted perhaps as early as 13th century. Future oil-gas discoveries expected to be small)

Yi, H., C. Lee & D.Y. Kim (2015)- Shwe Ga development, Rakhine Offshore, Myanmar. Proc. SEAPEX Exploration Conference 2015, Singapore, 2.2, p. 1-15. *(Extended Abstract + Presentation)*
(Three Daewoo gas field discoveries in Rakhine basin, NE offshore Myanmar from 2004-2006: Shwe, Shwe Phyu and Mya. Three fields with 2P reserves of 4 TCF. Biogenic gas in deepwater Late Pliocene Bengal Fan turbidite sand reservoirs (interbedded lobes, channels and slumps, sourced from NW and NE).(see also Yang & Kim 2014))

Yin, T.H. & C.H.Lu (1937)- On the Ordovician and Silurian beds of Shihtien, Western Yunnan. Acta Geologica Sinica 16, 1, p. 41-56.
(Shihtien Beds lower Ordovicain shales rich in brachiopods, trilobites, graptolites, overlain by 90m Hengshuitang Lst, equivalent of Nyaungbaw Lst of Myanamar (N Shan), overlain by Silurian graptolite shale)

Yui, T.F., M. Fukoyama Y. Iizuka, C.M. Wu, T.W. Wu, J.G. Liou & M. Grove (2013)- Is Myanmar jadeitite of Jurassic age? A result from incompletely recrystallized inherited zircon. Lithos 160-161, p. 268-282.
(Tree types of zircons in two Myanmar jadeitite samples: Type I -inherited zircons with igneous protolith age of 160 ± 1 Ma; Type II- metasomatic/hydrothermal zircons, giving minimum jadeitite formation age of ~77 Ma (Late Cretaceous subduction before India collision); Type III- incompletely recrystallized zircons with geologically meaningless ages of 153-105 Ma. Jadeitites formed through metasomatic replacement processes)

Zaw, H.N. & Myint Soe (2016)- Massive iron ore deposit, Hwe Hpa area, Mong Yawng, Myanmar. In: Proc. 52nd Annual Session Coord. Comm. Geoscience Progr. E and SE Asia (CCOP), Bangkok, p. 165-173.
(online at: www.ccop.or.th/download/as/52as2.pdf)
(Magnetite-hematite mineralization in northern continuation of Permian-Triassic Sukhothai island arc system along margin of Indochina terrane, in E Shan State, easternmost Myanmar. Hosted in Paleozoic siltstone-mudstone)

Zaw, K. (2017)- Overview of mineralization styles and tectonic metallogenic setting in Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 24, p. 531-556.
(Review of many different styles of mineralization of metallic and non-metallic mineral deposits in Myanmar (tin-tungsten, lead-zinc-silver, copper ± gold, Ni-Cr ± platinum (in Jurassic ophiolites), etc.)

Zaw, K., A. Pwa & T.A. Zan (1984)- Lead-zinc mineralization at Theingon Mine, Bawsaing, Southern Shan State, Burma; a Mississippi Valley-type deposit? Bull. Geol. Soc. Malaysia 17, p. 283-306.
(online at: www.gsm.org.my/products/702001-101150-PDF.pdf)
(Theingon Pb-Zn deposit near Bawsaing, S Shan State comparable to Mississippi-Valley-type deposits. Pb-Zn mineralization within Lower- M Ordovician Wunbye Fm carbonates (Sibumasu Plate). Epigenetic in origin)

Zaw, K., W. Swe, A.J. Barber, M.J. Crow & Y.Y. Nwe (2017)- Introduction to the geology of Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, p. 1-17.

(online at: http://mem.lyellcollection.org/content/memoirs/48/1/1.1.full.pdf)
(Myanmar lies at junction of Alpine-Himalayan orogenic belt and Indonesian island arc system. West Myanmar Block considered to have formed part of N margin of Gondwana; subsequent history block contentious: one possiblity separation from W Sumatra during Miocene development of Andaman Sea (similar Permian fusulinid assemblages. E Myanmar, including Shan Plateau, part of Sibumasu Block, which extends S-wards from Yunnan through Myanmar to Thailand, Malay Peninsula and Sumatra. In E Paleozoic Slate Belt (Mergui Gp) with diamictitesm part of Sibumasu Block or separate bloc. Etc.)

Zaw, K., Y.M. Swe, T.A. Myint & J. Knight (2017)- Copper deposits of Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 26, p. 573-588.
(Myanmar with >70 copper occurrences, including large high-sulphidation Cu ± Au deposits W of Monywa. Production started in 1985 with development of Sabetaung deposit at Monywa in C Myanmar. Copper produced as by-product from Bawdwin Mine, a volcanic-hosted massive sulphide deposit. Most copper associated with epigenetic vein-type and epithermal gold ± silver deposits)

Zaw Win (2009)- Fossil brachiopods from the Zwekabin Range. Hpa-an University Research J. 2009, 1, p. 145-149.
(Spinomartinia prolifica brachiopod assemblage found for first time from U Taungnyo Gp exposed along NW flank of Zwekabin Range, S Myanmar. Associated with Retimarginifera cf. alata, Torynifer, etc. Correlated with Spinomartinia prolifica fauna of E Permian Ko Yao Noi Fm of S Thailand and Kinta Valley of Wt Malay Peninsula , where age determined as Late Sakmarian (E Permian). Spinomartinia fauna viewed as 'transitional' biotic province with both Gondwanan and Tethyan affinities and endemic taxa of Shan-Thai Terrane)

Zaw Win & K.K. Shwe (2005)- Study of fusulinaceans from the Plateau Limestone at Kyaukap: taxonomic and biostratigraphic consideration. J. Myanmar Academy Arts and Science 3, p. 73-90.

Zaw Win, K.K. Shwe & O.S. Yin (2017)- Sedimentary facies and biotic associations in the Permian-Triassic limestones on the Shan Plateau, Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 15, p. 343-363.
(Thick late E Permian- M-L Triassic Plateau Limestone on Shan Plateau of E Myanmar (= W part of Sibumasu terrane). Unconformably over Ordovician-Silurian formations. Basal dolomitic limestone unit rich in corals (Wentzelella cf timorica, Ipciphyllum, Polythecalis), fusulinids (Pseudofusulina, Yangchienia, rare Neoschwagerina), small forams (Shanita amosi, Hemigordiopsis renzi, Agathammina, Pachyphloia), algae (Mizzia), etc. Triassic algal and cherty basinal limestones. Plateau Lst correlated with: (1) Ratburi Lst of Peninsular Thailand, (2) Chuping Fm/ Kodiang Lst of NW PeninsularMalaysia and (3) U Shazipo Fm of Baoshan Block, SW Yunnan)

Zhang, D., M. Yan, X. Fang, Y. Yang, T. Zhang, J. Zan, W. Zhang, C. Liu & Q. Yang (2018)- Magnetostratigraphic study of the potash-bearing strata from drilling core ZK2893 in the Sakhon Nakhon Basin, eastern Khorat Plateau. Palaeogeogr. Palaeoclim. Palaeoecology 489, p. 40-51.
(online at: https://www.sciencedirect.com/science/article/pii/S0031018217302080)
(Khorat Plateau one of world's largest potash evaporite deposits. Magnetostratigraphic study of 595m deep borehole in SE Sakhon Nakhon Basin in C Laos penetrated entire potash-bearing Nong Boua Fm and reached underlying sandstone beds. Combined with palynological, isotopic and other evidence, polarity zones correlated to geomagnetic polarity time scale, giving magnetostratigraphic ages of >63.5 Ma- ~92 Ma for evaporite section (= ~Turonian- Maastrichtian?))

Zhang, J., W. Xiao, B.F. Windley, F. Cai, K. Sein & S. Naing (2017)- Early Cretaceous wedge extrusion in the Indo-Burma Range accretionary complex: implications for the Mesozoic subduction of Neotethys in SE Asia. Int. J. Earth Sciences 106, 4, p. 1391-1408.
(Indo-Burma Range of Myanmar (E extension of Yarlung-Tsangpo Neotethyan belt of Tibet in China), contains melanges with serpentinite, greenschist facies basalt, chert, sericite schist, silty slate and unmetamorphosed Triassic sandstone, mudstone and siltstone interbedded with chert in E, and farther N high-P blueschist and eclogite blocks in Naga Hills melange. IBR metamorphic rocks exhumed by wedge extrusion in subduction zone

accretionary complex. Amphibolites zircon ages of 119 ± 3 Ma and 115 Ma, close to ages of nearby calc-alkaline granite and diorite, which belong to active continental margin arc along W side of Shan-Thai block. IBR accretionary complex generated during E Cretaceous (115-128 Ma) subduction of Neotethys Ocean).

Zhang, P., L. Mei, X. Hu, R. Li, L. Wu, Z. Zhou & H. Qiu (2017)- Structures, uplift, and magmatism of the Western Myanmar Arc: Constraints to mid-Cretaceous-Paleogene tectonic evolution of the western Myanmar continental margin. Gondwana Research 52, p. 18-38.
(Arc-basin system along W Myanmar continental margin, with at least three igneous events in W Myanmar Arc: mid-Cretaceous (110-90 Ma), latest Cretaceous- E Paleocene (69-64 Ma) and Eocene (53-38 Ma), and associated uplift in Late Cretaceous, Eocene and Late Oligocene. Magmas significant juvenile mantle source component involving subducted sediments and juvenile crustal materials. Magmatism can be correlated with Gangdese arc in Lhasa terrane of S Tibetan Plateau. Model of E-ward subduction of Neo-Tethyan/Indian plate oceanic crust under Sibumasu starting in mid-Cretaceous, with long-lived back-arc extension in W Myanmar)

Zhang, R.Y., C.H. Lo, S.L. Chung, M. Grove, S. Omoti, Y. Iizuka, J. G. Liou & T.V. Tri (2013)- Origin and tectonic implication of ophiolite and eclogite in the Song Ma Suture Zone between the South China and Indochina Blocks. J. Metamorphic Geol. 31, 1, p. 49-62.

(Song Ma belt in N Vietnam with ophiolite, metabasite, metasediments and eclogite, and thought to be suture zone between Indochina and South China blocks. Eclogite high-P metamorphism in subduction zone with low T gradient (~8 °C/km). Song Ma ophiolite experienced ocean-floor metamorphism. Metabasalt and gabbro with MORB-type geochemical affinities. Eclogite U-Pb zircons mean age 230.5 ± 8.2 Ma, interpreted as closure age of Paleotethys and subsequent collision of two blocks in M Triassic (main Indosinian Orogeny))

Zhang, R.Y., C.H. Lo, X.H. Li, S.L. Chung, Tran Tuan Anh & Tran V. Tri (2014)- U-Pb dating and tectonic implication of ophiolite and metabasite from the Song Ma suture zone, northern Vietnam. American J. Science 314, 2, p. 649-678.
(Song Ma ophiolites mainly peridotite, basalt and gabbro with greenschist- lower amphibolite-facies metamorphism. U-Pb zircon ages 340± 29 Ma (E Carboniferous), interpreted as protolith age. Metamorphic rims age of ~280 Ma (E Permian). Metabasalt protolith age ~315 Ma. Eclogite and garnet hornblende metamorphic ages ~ 230 Ma. Three-stage evolution: (1) Paleotethys oceanic crust formation at 340-315 Ma and ocean-floor metamorphism at 283-280 Ma, (2) <280-230 Ma: Paleotethys lithosphere subduction and HP metamorphism at ~230 Ma; closure of Paleotethys in M Triassic; and (3) <230 Ma: breakoff of Paleotethys oceanic lithosphere and exhumation of subducted slabs. Subduction polarity still problematic)

Zhang, Y.D., J.X. Fan, B.D. Erdtmann & X. Liu (2009)- Darriwilian graptolites of the Shihtien Formation (Ordovician) in west Yunnan, China. Alcheringa 33, 4, p. 303-329.
(online at: www.tandfonline.com/doi/pdf/10.1080/03115510903043762?needAccess=true)
(W Yunnan in SW China part of Sibumasu Terrane. Ordovician rocks affected by several phases of tectonics. M-L Darriwilian graptolite fauna from Shihtien Fm at Baoshan and Shidian with 15 species, incl. Didymograptus artus, D. murchisoni, D. spinulosus, Pterograptus sp., Hustedograptus spp, Archiclimacograptus spp., etc. Two biozones:Didymograptus artus and D. murchisoni. Graptolite fauna similar to Baltica and S China)

Zhang, Y., W.H. He, G.R. Shi & K.X. Zhang (2013)- A new Changhsingian (Late Permian) Rugosochonetidae (Brachiopoda) fauna from the Zhongzhai section, southwestern Guizhou Province, South China. Alcheringa 37, p. 223-247.

Zhang, Y., W.H. He, G.R. Shi, K.X. Zhang & H.T. Wu (2015)- A new Changhsingian (Late Permian) brachiopod fauna from the Zhongzhai section (South China) Part 3: Productida. Alcheringa 39, 3, p. 295-314.
(Latest Permian Brachiopod fauna from section at Zhongzhai, Guizhou Province (S China). 15 species of Productida. Etc.)

Zhang, Y., G.R. Shi, W.H. He, K.X. Zhang & H.T. Wu (2014)- A new Changhsingian (Late Permian) brachiopod fauna from the Zhongzhai section (South China), Part 2: Lingulida, Orthida, Orthotetida and Spiriferida. Alcheringa 38, 4, p. 480-503.

Zhang, Y., Y. Wang, R. Zhan, J. Fan, Z. Zhou & X. Fang (2014)- Ordovician and Silurian stratigraphy and palaeontology of Yunnan, Southwest China- A guide to the field excursion across the South China, Indochina and Sibumasu. IGCP Project 591 Post-conference fieldtrip, Kunming 2014, Science Press, Beijing, p. 1-128.
(Yunnan province of SW China comprises three terrains: South China (E Yunnan), Indochina (Simao; C and S Yunnan) and Sibumasu (Baoshan- Tengchong; W Yunnan- E Myanmar, etc.). All were part of NE Peri-Gondwana Region in Early Paleozoic, possibly off the NW Australia sector)

Zhao, J., B. Huang, Y. Yan & D. Zhang (2015)- Late Triassic paleomagnetic result from the Baoshan Terrane, West Yunnan of China: implication for orientation of the East Paleotethys suture zone and timing of the Sibumasu-Indochina collision. J. Asian Earth Sci. 111, p. 350-364.
(Paleomagnetic study of Late Triassic basalts from S part of Baoshan Terrane (= N-most Sibumasu Block) in W Yunnan indicates 15°N paleolatitude in Late Triassic time. Wider paleomagnetic comparison supports view that E Paleotethys Ocean separated Sibumasu and Indochina blocks and closed no later than Late Triassic. N-S directed Changning-Menglian suture zone likely E-W at time of Sibumasu-Indochina collision)

Zherikhin, V.V. & A.J. Ross (2000)- A review of the history, geology and age of Burmese amber (burmite). Bull. Natural History Museum, London (Geology) 56, 1, p. 3-10.
(online at: https://ia800304.us.archive.org/24/items/bulletinofnatura561natu/bulletinofnatura561natu.pdf)
(Burmese amber has been known since 1st century AD. Recorded from five regions in Myanmar, but only mined commercially in Hukawng Valley in N Myanmar. Amber in clastic deposits with Nummulites of M Eocene age, but amber as reworked pebbles and probably of Cretaceous age (also associated with reworked Cenomanian limestone clasts with Orbitolina birmanica). With 10 additional papers on insects from Burmese amber)

Zhu, B., Z. Guo, R. Liu, D. Liu & W. Du (2014)- No pre-eruptive uplift in the Emeishan large igneous province; new evidences from its 'inner zone', Dali area, southwest China. J. Volcanology and Geothermal Research 269, p. 57-67.
(M-L Permian Emeishan LIP considered example of crustal domal uplift caused by mantle plume upwelling before onset of volcanism, but emplacement began in deeper water setting. Lower Succession volcanism had grown into shallower water; Upper Succession subaerial lavas and tuffs. Inconsistent with domal uplift model)

Zhu, B.Q., C.X. Mao, G.W. Lugmair & J.D. Macdougall (1983)- Isotopic and geochemical evidence for the origin of Plio-Pleistocene volcanic rocks near the Indo-Eurasian collisional margin at Tengchong, China. Earth Planetary Sci. Letters 65, 2, p. 263-275.
(In Yunnan Province, SW China, regional extension associated with India- Asia collision formed series of N-S trending basins. Near Tengchong close to Myanmar border, basin is characterized by K-rich basalt-dacite volcanism which began in Pliocene (~ 7 Ma) and continued to historic times. Five chemical groups recognized)

IX.5. Cambodia, Vietnam, Laos, SE China (Indochina - South China Plates) (105)

Allain, R., P. Taquet, B. Battail, J. Dejax, P. Richir, M. Veran, P. Sayarath, B. Khenthavong, P. Thamvirith & B. Hom (1997)- Pistes de dinosaures dans les niveaux du Cretace inferieur de Muong Phalane, province de Savannakhet (Laos). Comptes Rendus Academie Sciences, Paris, IIA, 325, 10, p. 815-821.
('Dinosaur tracks in the Lower Cretaceous of Muong Phalane, Savannakhet Province, Laos'. Three levels with dinosaur footprints along Sang Soy River, in flood plain sandstone at top of late Lower Cretaceous 'Gres superieurs', dated by fresh water pelecypods (Trigonioidacea). Theropod, ornithopod and sauropod footprints)

Allain, R., P. Taquet, B. Battail, J. Dejax, P. Richir, M. Veran, F. Limon-Duparcmeur, R. Vacant et al. (1999)- Un nouveau genre de dinosaure sauropode de la formation des Grss superieurs (Aptien-Albien) du Laos. Comptes Rendus Academie Sciences, Paris, IIA, 329, p. 609-616.
(Partly-articulated postcranial remains of two sauropod skeletons in Tang Vay (Savannakhet) assigned to Tungvuyosuurus hoffeti n.gen. n.sp. Considered as primitive titanosaur)

Allain, R., T. Xaisanavong, P. Richir & B. Khentavong (2012)- The first definitive Asian spinosaurid (Dinosauria: Theropoda) from the Early Cretaceous of Laos. Naturwissenschaften 99, 5, p. 369-377.
(First discovery of new spinosaurid theropod from Asia in late E Cretaceous Savannakhet Basin in Laos. Named Ichthyovenator laosensis n.gen. n.sp. Includes partially articulated postcranial remains with dorsosacral sail)

Amare, K. & C. Koeberl (2006)- Variation of chemical composition in Australasian tektites from different localities in Vietnam. Meteoritics Planetary Science 41, 1, p. 107-123.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1945-5100.2006.tb00196.x/epdf)
(Pleistocene tektites from Vietnam either of splash form (SiO2 70-77%), or larger, blocky Muong Nong-type (SiO2 74-81%.). Geochemistry similar to Muong Nong-type indochinites, indicating same source and composition similar to average upper continental crust, without obvious extraterrestrial components)

Barnes, V.E. & K. Pitakpaivan (1962)- Origin of indochinite tektites. Proc. National Academy Sciences USA 48, p. 947-955.
(online at: www.pnas.org/content/48/6/947)
(Chemical analyses of Muong Nong-type and 'normal' splashform indochinite flassy tektites from Laos and Thailand)

Bohme, M., M. Aiglstorfer, P.O. Antoine, E. Appel, P. Havlik, G. Metais, Laq The Phuc, S. Schneider, et al. (2013)- Na Duong (northern Vietnam)- an exceptional window into Eocene ecosystems from Southeast Asia. Zitteliana A 53, p. 121-167.
(online at: www.wahre-staerke.com/~madelaine/2014_Boehme_NaDuong.pdf)
(Na Duong Basin in N Vietnam with high diversity Paleogene vertebrate, invertebrate and plant fossils in 220 m thick coal-bearing Na Duong section, ~20km SE of Lang Son. Affinities of new mammal species suggest M-L Eocene age (late Bartonian-Priabonian). High biodiversity unionid mussels (Nodularia, Cristaria), freshwater gastropods, fishes, turtles and crocodiles. Dipterocarp trees and tree ferns identified. In-situ tree-stump horizons suggest maximum canopy height (35m). Environment changed abruptly from swamp forest to tropical-warm subtropical lake. Strong biogeographic link with Eocene mammal faunas from Europe)

Boura, A., D. Pons, C. Vozenin-Serra & Bui Phu My (2013)- Mesozoic fossil wood of Kien Giang Province, southwestern Vietnam. Palaeontographica, B 290, 1-3, p. 11ï 40
(New fossil wood from E Cretaceous continental red beds ('Gres superieurs') of islands in NE Gulf of Thailand off S Vietnam. Fossil wood samples belong to Agathoxylon saravanensis, Protophyllocladoxylon, Cycadeanoxylon. Brachyoxylon orientale and Prototaxoxylon asiaticum already known from this area. Associated with rel. common Classopollis pollen, Signify rel. aridclimate with some seasonality (growth rings))

Bouttathep, B. (2013)- Geology of the Sepon copper and gold deposits, Laos. In: C. Senebouttalath et al. (eds.) Proc. 2nd Lao-Tai Conf. Geology and Mineral resources, Vientiane, p. 164-187.

(online at: www.dmr.go.th/download/English/LAO%20-THAI%20Conference%202012_Proceedings.pdf)
(Sepon Mining District in S C Laos in Sepon basin within NW trending Truongson fold belt of Devonian-Carboniferous sediments and metamorphic rocks (Indochina terrane). Major compressional event, likely associated with Indosinian orogeny and with Carlin-type? gold mineralization-forming intrusion of rhyodacite porphyry dikes)

Buffetaut, E. (1991)- On the age of the dinosaur-bearing beds of southern Laos. Newsletters Stratigraphy 24, 1-2, p. 59-73.
(Dinosaur fauna discovered by Hoffet in 1930 in S Laos considered by him as Senonian in age, but sauropod and hadrosaurid material non-diagnostic. Dinosaur-bearing beds of Muong Phalane equivalent of Khok Kruat Fm of nearby Khorat Plateau in NE Thailand, dated as late E Cretaceous (Barremian; Buffetaut et al. 2005)

Carbonnel, J.P. (1972)- Le Quaternaire cambodgien : structure et stratigraphie. Mem. ORSTOM 60, p. 1-254.
(online at: http://horizon.documentation.ird.fr/exl-doc/pleins_textes/pleins_textes_2/memoires/05936.pdf)
('The Quaternary of Cambodia'. Include M Pleistocene tektites occurrence in upper gravels of 40m terrace of Mekong River)

Cheng, Y., J. Mao & P. Liu (2016)- Geodynamic setting of Late Cretaceous Sn-W mineralization in southeastern Yunnan and northeastern Vietnam. Solid Earth Sciences 1, 3, p. 79-88
(online at: www.sciencedirect.com/science/article/pii/S2451912X16300046)
(Late Cretaceous (~80-100 Ma) Sn-W mineralization in SE Yunnan (S China) and NE Vietnam many similarities, representing one regional magmatic-mineralization event. Late Cretaceous magmatic-mineralization- metamorphic activities widely distributed along E Asian continental margin, and product of subduction of Paleo-Pacific Plate under Eurasia (also Triassic magmatism with Sn-W mineralization))

Cung, T.C., J.W. Geissman, V.Q. Hoang, T.P.D. Nguyen & T.H. Nguyen (2014)- New paleomagnetic results of upper Permian- lower Triassic volcanic sequences from the Hoa Binh area, northwest Vietnam. Vietnam J. Earth Sciences 36, p. 413-423.
(online at: www.vjs.ac.vn/index.php/jse/article/download/6429/5701)
(Paleomag work on late Permian- E Triassic volcanics (basalt ages 257-270 Ma; distal equivalents of Emeishian?) of Viet Nam Fm at Hoa Binh dam suggest paleolatitude of ~15°S, and that volcanic terrane was close to or part of S China Block since late Permian)

Cuny, G., J. Mo, R. Amiot, E. Buffetaut, S. Suteethorn,V. Suteethorn & H. Tong (2017)- New data on Cretaceous freshwater hybodont sharks from Guangxi Province, South China. Research and Knowledge 3, 1, p. 11-15.
(online at: https://rk.msu.ac.th/wp-content/uploads/2017/09/04-Gilles.pdf)
(Fluvial Lower Cretaceous Xinlong Fm in Guangxi with diverse assemblage of vertebrates, incl. fresh-water hybodont shark teeth Acrorhizodus khoratensis)

Deng, J., C. Wang, J.W. Zi, R. Xia & Q. Li (2018)- Constraining subduction-collision processes of the Paleo-Tethys along the Changning-Menglian suture: new zircon U-Pb ages and Sr-Nd-Pb-Hf-O isotopes of the Lincang Batholith. Gondwana Research, p. *(in press)*
(Changning-Menglian suture remnant of main Paleo-Tethys in SW China, with abundant magmatic rocks formed during orogenic processes related to closure of Paleo-Tethys. Lincang granitoid batholith crystallization ages of 261, 252 (Late Permian) to 203 Ma (Late Triassic), suggesting multi-stage emplacement. Three episodes related to subduction (before ~252 Ma), syn-collision (250-237 Ma) and post-collision (235-203 Ma))

Ducrocq, S., M. Benammi, O. Chavasseau, Y. Chaimanee, K. Suraprasit, P.D. Pha, L. Vu, P.V. Phach & J.J. Jaeger (2015)- New anthracotheres (Cetartiodactyla, Mammalia) from the Paleogene of northeastern Vietnam: biochronological implications. J. Vertebrate Paleontology 35, 3, e929139, p. 1-11.
(Three new species of anthracotheres from Late Eocene Na Duong coal deposits in NE Vietnam. Morphologically close to species known in China, Thailand, Myanmar and Egypt)

UN/ESCAP (1990)- Lao People's Republic. Atlas of mineral resources of the ESCAP region 7, United Nations Publications, New York, p. 1-19.
(Brief review of mineral occurrences of Laos)

Faure, C. & H. Fontaine (1969)- Geochronologie du Viet-Nam meridional. Archives Geol. Vietnam 12, p. 213-222.
('Geochronology of South Vietnam'. see also Lasserre et al. 1974)

Fiske, P.S., P. Putthapiban & J.Y. Wasson (1996)- Excavation and analysis of layered tektites from northeast Thailand: results of 1994 field expedition. Meteoritics Planetary Science 31, p. 36-41.

Fiske, P.S., C.C. Schnetzler, J. McHone, K.K. Chanthavaichith et al. (1999)- Layered tektites of southeast Asia: Field studies in central Laos and Vietnam. Meteoritics Planetary Science 34, 5, p. 757-761.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1945-5100.1999.tb01388.x/epdf)
(Pleistocene layered tektites particularly big and abundant near Muong Nong (Laos). Layered tektites also common in C Vietnam and NE Thailand. Part of large layered tektites subfield of Australasian strewn field)

Fontaine, H. (1962)- Gisements fossiliferes du Bassin houiller du Quang-Nam. Travaux de Geologie, 1, p. 33-52.
('Fossiliferous beds from the coal basin of Quang-Nam', Vietnam)

Fontaine, H. (1976)- Tectites du Viet-Nam meridional: repartition geographique, richesse des gisements. Comptes Rendus Soc. Geol. France 2, p. 37-39.
('Tektites of southern Vietnam: geographic distribution and richness of the deposits')

Garnier, V. (2003)- Les gisements de rubis associes aux marbres de l'Asie Centrale et du Sud-est: genese et caracterisation isotopique. Ph.D. Thesis, Institut National Polytechnique de Lorraine, Nancy, p. 1-371.
('The ruby-bearing beds associated with marbles on Central and SE Asia: genesis and isotopic characterization')

Gonez, P., Hung Nguyen Huu. Phuong Ta Hoa, G. Clement & P. Janvier (2012)- The oldest flora of the South China Block, and the stratigraphic bearings of the plant remains from the Ngoc Vung Series, northern Vietnam. J. Asian Earth Sci. 43, 1, p.51-63.
(Late Silurian- Devonian of Ngoc Vung Series of N Vietnam with plant remains. Late Silurian localities earliest known flora of S China block. Flora supports hypothesis that more derived plants were present on E Gondwana earlier than elsewhere. Devonian localities with thick fibrous stem fragment, of Eifelian-Emsian age)

Hartung, J.B. & C. Koeberl (1994)- In search of the Australasian tektite source crater: the Tonle Sap hypothesis. Meteorics Planetary Science 29, 3, p. 411-416.
(online at: http://adsabs.harvard.edu/full/1994Metic..29..411H)
(Tonle Sap lake in S-C Cambodia may be remnant of source crater of Australasian tektites strewn field))

Hartung, JB. & A.R. Rivolo (1979)- A possible source in Cambodia for Australasian tektites. Meteoritics 14, 1, p. 153-159.
(A 10x6km ring of hills in NE Cambodia is possible impact crater of Australasian tektite strewn field)

Hennig, J. (2017)- SE Vietnam U-Pb zircon ages and provenance: correlating the Da Lat zone on land with the Cuu Long basin offshore. American Geophys. Union (AGU) Fall Meeting, New Orleans, EP21A-1830, 1p. *(Abstract and Poster)*
(online at: https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/223717)
(Onshore SE Vietnam Da Lat zone with Cretaceous intrusions with zircons aged ~122-76 Ma. Jurassic metasediments of Ban Don Gp contain dominant Jurassic, Permo-Triassic and Paleoproterozoic (c. 1.8 Ga) age populations. Oligocene samples from offshore Cuu Long Basin strong Cretaceous age peak (mainly 90-110

Ma, and not much else. M Miocene sandstones mainly Triassic peak (220-240 Ma) and subordinate peaks of Cretaceous and many older oges, mainly 1.8 Ga (from proto-Mekong Delta more distant sources?))

Hennig, J., H.T. Breitfeld, A. Gough, R. Hall, Trinh Van Long, Vinh Mai Kim & Sang Dinh Quang (2018)- U-PB zircon ages and provenance of Upper Cenozoic sediments from the Da Lat Zone, SE Vietnam: implications for an Intra-Miocene unconformity and paleo-drainage of the Proto-Mekong River. J. Sedimentary Res. 88, 4, p. 495-515.
(Oligo-Miocene Di Linh Fm with abundant Cretaceous zircons and subordinate Paleoproterozoic (c. 1.8-1.9 Ga), sourced mainly from Cretaceous plutons. Pliocene- Pleistocene Song Luy Fm with additional Permian-Triassic and Ordovician-Silurian age populations, interpreted to be from basement in C and N Vietnam and reflecting intra-Miocene unconformity)

Hieu, P.T., S.Q. Li, Y.Yu, N.X. Thanh, L.T. Dung, VuLe Tu, W. Siebel & F. Chen (2017)- Stages of late Paleozoic to early Mesozoic magmatism in the Song Ma belt, NW Vietnam: evidence from zircon U-Pb geochronology and Hf isotope composition. Int. J. Earth Sciences (Geol. Rundschau), 106, 3, p. 855-874.
(Song Ma zone in NW Vietnam subduction corridor between Indochina and S China blocks. Two-stage magmatic evolution: ocean subduction at ~290-260 Ma and post-collisional magmatism at ~245-230 Ma)

Hoa, T.T., T.T. Anh, N.T. Phuong, P.T. Dung, T.V. Anh, A.E. Izokh, A.S. Borisenko, C.Y. Lan, S.L. Chung & C.H. Lo (2008)- Permo-Triassic intermediate-felsic magmatism of the Truong Son belt, eastern margin of Indochina. Comptes Rendus Geoscience 340, p. 112-126.
(Permo-Triassic intermediate-felsic magmatism along Truong Son fold belt in N Vietnam, along E margin of Indochina Block: calc-alkaline volcano-plutonic associations (272-248 Ma), peraluminous granites (259-245 Ma), and subalkaline felsic volcano-plutonic associations (<245 Ma). Products of Paleotethys subduction during Indochina/ N Vietnam- S China amalgamation. Event ended in E-M Triassic (246-240 Ma))

Hoang, C.M., M.V. Du, P.K. Hoan & T.D. Hung (2013)- Hydrocarbon potential of Champasak & Saravan area, Southern Lao PDR. In: C. Senebouttalath et al. (eds.) Proc. 2nd Lao-Tai Conf. Geology and Mineral resources, Vientiane, p. 226-235.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/2013/36787.pdf)
(Hydrocarbon exploration in Champasak and Saravan provinces, geologically SE part of Khorat Plateau. No significant hydrocarbon flows obtained yet)

Hoang, T.H.A., S.H. Choi, Y. Yu, T.H. Pham, K.H.Nguyen & J.S. Ryu (2018)- Geochemical constraints on the spatial distribution of recycled oceanic crust in the mantle source of late Cenozoic basalts, Vietnam. Lithos 296-299, p. 382-395.
(online at: https://www.sciencedirect.com/science/article/pii/S002449371730405X)
(Geochemical composition of Late Cenozoic intraplate basaltic rocks from C and S Vietnam indicates basalts sourced from mantle dominated by garnet peridotite, and recycled oceanic crustal material (sediment, basalt, and gabbro). Possibly result of entrainment of accumulated Paleo-Pacific slab into rising Hainan plume)

Hoffet, J.H. (1937)- Note sur la geologie du Bas-Laos. Bull. Service Geol. Indochine 24, 2, p. 1-22.
('Note on the geology of lower Laos')

Hoffet, J.H. (1942)- Description de quelques ossements de Titanosauriens du Senonien du Bas-Laos. Comptes Rendus Seances Conseil Recherches Scient. Indochine 1942, 1, p. 51-57.
('Description of some titanosaurian bones from the Senonian of Lower Laos'. See also Buffetaut 1991)

Hovikoski, J., J. Therkelse, L.H. Nielsen, J.A. Bojesen-Koefoed, H.P. Nytoft, H.I. Petersen, I. Abatzis, H.A. Tuan, B.T.N. Phuong, C.V. Dao & M.B.W. Fyhn (2016)- Density-flow deposition in a fresh-water lacustrine rift basin, Paleogene Bach Long Vi Graben, Vietnam. J. Sedimentary Research 86, 9, p. 982-1007.
(Bach Long Vi Island is crest of inverted Eo-Oligocene Bach Long Vi Graben in Gulf of Tonkin area, at intersection of Song Hong and Beibuwan basins, N Vietnam. 500m-thick Paleogene lacustrine oil-prone source rock succession in Enreca-3 core-hole)

Hu, L., P.A. Cawood, Y. Du, J. Yang & L. Jiao (2015)- Late Paleozoic to Early Mesozoic provenance record of Paleo-Pacific subduction beneath South China. Tectonics 34, 5, p. 986-1008.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2014TC003803)
(NE-trending Yong'an Basin, SE S China craton, preserves Permian-Jurassic marine-continental, clastic-dominated retroarc foreland basin succession. Sources for M Paleozoic- E Mesozoic detrital zircons include input from beyond currently exposed China mainland, possibly from active convergent plate margin along SE rim of craton that incorporated part of SW Japan and is related to subduction of Paleo-Pacific Ocean. Termination of Paleo-Tethys subduction beneath SW margin in Permo-Triassic)

Ishihara, S. & Y. Orihashi (2014)- Zircon U-Pb age of the Triassic granitoids at Nui Phao, northern Viet Nam. Bull. Geol. Survey Japan 65, p. 17-22.
(online at: https://www.jstage.jst.go.jp/article/bullgsj/65/1-2/65_17/_pdf)
(Zircons from granitoids at Nui Phao in N Vietnam dated as earliest Triassic (~250 Ma). Possibly associated with Sn-W and REE ore deposits hosted in granitoids)

Janvier, P., P. Gerienne and T. Tong-Dzut (1989)- Les placodermes, arthropodes et lycophytes des gres devoniens de Do Son (Haiphong, Viet Nam). Geobios 25, 5, p. 625-638.
('The placoderms, arthropodes and lycophytes from the Devonian sandstones of Do Son (Haiphong, Vietnam)')

Janvier, P., T.D. Thanh & D.N. Truong (1994)- Devonian fishes from Vietnam: new data from Central Vietnam and their paleobiogeographical significance. In: P. Angsuwathana et al. (eds.) Proc. Int. Symposium Stratigraphic correlation of Southeast Asia, Bangkok 1994, Dept. Mineral Resources and IGCP 306, p. 69-74.
(Devonian fish of Vietnam mainly in Bac Bo, N Vietnam, and E Devonian age. Faunas similar to S China, with many taxa endemic to S China Block. New M Devonian fish fauna reported)

Jiang, X.Y., X.H. Li, W.J. Collins & H.Q. Huang (2015)- U-Pb age and Hf-O isotopes of detrital zircons from Hainan Island: implications for Mesozoic subduction models. Lithos 239, p. 60-70.
(Detrital zircon samples from Cretaceous Lumuwan Fm on Hainan Island (SE China/NW S China Sea) suggest three major episodes of Mesozoic magmatic activity along continental margin of E Asia in S China: ~120 and 155 Ma (Yanshanian) and 235 Ma (Carnian/Triassic; Indosinian?))

Johansen, K.B., L. Endebrock, K. Oh & S. Maingarm (2009)- An insight to the petroleum geology in the Kampong Som and Tonle Sap basins, onshore Cambodia. Proc. 2009 SE Asia Petroleum Expl. Soc. (SEAPEX) Conference, Singapore, p. 1-39. *(Abstract + Presentation)*
(Onshore Cambodia Kampong Som and Tonle Sap basins outlined with gravity and reconnaissance seismic. At least three phases of uplift and erosion of pre-Tertiary age. Basins surrounding Tonle Sap Lake at least 5-6 km of Mesozoic and older sediments. Potential Triassic and Permian source rocks mature for oil and gas over large parts of basins. Khorat Plateau-like stratigraphy, with Indosinian? major unconformity)

Jolivet, L., H. Maluski, O. Beyssac, B. Goffe, C. Lepvrier, Phan Truong Thi & Nguyen Van Vuong (1999)- Oligocene-Miocene Bu Khang extensional gneiss dome in Vietnam; geodynamic implications. Geology 27, 1, p. 67-70.
(Large Oligocene-Miocene extensional gneiss dome in Vietnam, with major NE-dipping extensional shear zone separating Bu Khang dome from less-metamorphosed units above. 40Ar-39Ar ages from 36-21 Ma. NE-SW extension during opening of S China Sea. Kinematic model of left-lateral shear and block rotation)

Katz, M.B. (1993)- The Kannack complex of the Vietnam Kontum Massif of the Indochina Block: an exotic fragment of Precambrian Gondwanaland? In: R.H. Findlay et al. (eds.) Gondwana 8- Assembly, evolution and dispersal, Balkema, Rotterdam, p. 161-164.

Lasserre, M., H. Fontaine & E. Saurin (1974)- Geochronologie du Sud Viet-Nam. Archives Geol. Vietnam 17, p. 17-34.
('Geochronology of South Vietnam')

Li, M., M. Yan, X. Fang, Z. Zhang, & X. Liu (2018)- Origins of the Mid-Cretaceous evaporite deposits of the Sakhon Nakhon Basin in Laos: Evidence from the stable isotopes of halite. J. Geochemical Exploration 184, A, p. 209-222.
(online at: https://www.sciencedirect.com/science/article/pii/S0375674217303035)
(Evaporite deposits in Sakhon Nakhon Basin, SE Laos, is northern continuation of M-L Cretaceous salt basin of Khorat Plateau (Thailand; Indochina Plate). Isotopes and trace metals in 600m halite-dominated core suggest continental and hydrothermal origins, with trace marine remnants (probably formed originally by evaporation of seawater, being dissolved in meteoric water and hydrothermal fluid, and subsequently precipitated))

Li, Y., C.Q. Ma, G.F. Xing & H.W. Zhou (2015)- The Early Cretaceous evolution of SE China: insights from the Changle-Nan'ao metamorphic belt. Lithos 230, p. 94-104.
(SE China widespread Jurassic- Cretaceous magmatism, but episode of 'magmatic quiescence' at ~130-110 Ma. E Cretaceous (~140-130 Ma) magmatism in coastal SE China attributed to Paleo-Pacific plate subduction beneath SE China. Collision between W Philippines and SE China blocks at ~130-120 Ma resulted in magmatic quiescence and formation of Changle-Nan'ao metamorphic belt. Post-collisional extension triggered reinitiation of magmatism associated with amphibolite-facies metamorphism at ~110 Ma)

Li, X., J. Zheng, S. Li, Bo Liu, L. Xiang, Y. Wang & X. Liu (2016)- Late Triassic orogenic collapse and Palaeo-Pacific slab roll-back beneath central South China: constraints from mafic granulite xenoliths and structural features. In: Evolution of West Pacific Ocean, South China Sea and Indian Ocean, Geological J. 51, Supplement S1, p. 123-136.
(Daoxian mafic granulite xenoliths in basalts from S Hunan Province and structural features of Xuefengshan belt suggest Late Triassic orogenic collapse under central S China Block, accompanied by lithospheric extension and asthenospheric upwelling. Could have contributed to mantle disturbance to enhance rollback of Paleo-Pacific slab)

Liu, H., Y. Wang, P.A. Cawood, W. Fan, Y. Cai & X. Xing (2015)- Record of Tethyan Ocean closure and Indosinian collision along the Ailaoshan suture zone (SW China). Gondwana Research 27, 3, p. 1292-1306.
(online at: http://or.nsfc.gov.cn/bitstream/00001903-5/252870/1/1000014253494.pdf)
(NW-SE trending Ailaoshan suture part of ~2900 km long Jinshajiang- Ailaoshan- Song Ma- Hainan suture, and separates Yangtze (S China Craton) block in N from Simao (Indochina) block in S. Granitic plutons in Ailaoshan zone yield zircon ages of 247-252 Ma. Indosinian magmatism confirmed along Ailaoshan zone. Latest Permian convergent margin magmatism represented by Xin'anzhai granitoid (~252 Ma) terminated through accretion of Simao-Indochina to S China Blocks, marking start of Triassic Indosinian Orogeny, resulting in generation of the ~247 Ma (earliest Triassc) Tongtiange S-type leucogranite)

Liu, H.C., Y.J. Wang, X.F. Guo, W.M Fan & J.J. Song (2016)- Late Triassic post-collisional slab break-off along the Ailaoshan suture: insights from OIB-like metagabbros and associated rocks. Int. J. Earth Sciences (Geol. Rundschau) 106, 4, p. 1359-1373.
(Late Triassic gabbroic intrusion in Mengdong village in S China- Indochina collision zone, Yunnan, SW China, metamorphosed to amphibolite. Late Triassic magmatic flare-up at ~222± 5 Ma in Ailaoshan suture zone post-collisional setting, with heat source from slab break-off and OIB-type asthenospheric mantle upwelling)

Manaka, T., K. Zaw, S. Meffre, A. Salam & Y. Lim (2014)- An overview of geological setting and ore deposits of southern Indochina- a focus on Cambodia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Ann. Conv. Indon. Soc. Econ. Geol. (MGEI), Palembang, p. 103-107.
(Brief review of Cambodia porphyry gold-copper deposits, associated with Permian- Triassic (260-230 Ma magmatic system, Cu in Jurassic and gold in Cretaceous magmatic sytems (SW continuation of Yanshanian Orogenic Belt of S China)

Mao, J., H. Ye, K. Liu, Z. Li, Y. Takahashi, X. Zhao & W.S. Kee (2013)- The Indosinian collision- extension event between the South China Block and the Palaeo-Pacific plate: evidence from Indosinian alkaline granitic rocks in Dashuang, eastern Zhejiang, South China. Lithos 172-173, p. 81-97.

(M Triassic (~232 Ma) Dashuang pluton in Jinhua, S China feflect collisional granite, emplaced during Indosinian Orogeny)

Meyer, K., R. Grenier & D. Hoang (2009)- Exploration in Vietnam: exploration experiences in a re-emerging Cuu Long basin. Proc. 2009 SE Asia Petroleum Expl. Soc. (SEAPEX) Conference, Singapore, p. 1-15. *(Abstract + Presentation)*
(Cuu Long basin off S Vietnam with 12 or more oil discoveries, 80% of oil in fractured-weathered granite basement, with additional production from onlapping and draping clastics)

Miyahigashi, A., H. Hara, K. Hisada, N. Nakano, T. Charoentitirat, P. Charusiri, K. Khamphavong & R. Martini (2017)- Middle Triassic foraminifers from northern Laos and their paleobiogeographic significance. Geobios 50, 5-6, p. 441-451.
(First Triassic foraminifera reported from shallow marine limestones in U Nam Sam Suite, Sam Neua area, N Laos (N part of Indochina Block). 17 taxa, incl. Pilammina densa, Pilamminella grandis, Citaella dinarica, etc.. Age M Anisian (M Triassic). Fauna shares several important species with Sibumasu Block, Sukhothai Zone and S China Block, suggesting these domains formed single paleobiogeographic province in Anisian time)

Nakano, N., Y. Osanai & M. Owada (2008)- Textural varieties in the Indochinese metamorphic rocks: a key for understanding Asian tectonics. Island Arc, 17, p. 2-5.

Ngo, T.X., M. Santosh, H.T. Tran, & H.T. Pham (2016)- Subduction initiation of Indochina and South China blocks: insight from the forearc ophiolitic peridotites of the Song Ma Suture Zone in Vietnam. Geological J. 51, 3, p. 421-442.

Owada, M., Y. Osanai, N. Nakano, T. Adachi, I. Kitano, Tran Van Tre & H. Kagami (2016)- Late Permian plume-related magmatism and tectonothermal events in the Kontum Massif, central Vietnam. J. Mineralogical and Petrological Sciences 111, 3, p. 1-15.
(online at: https://www.jstage.jst.go.jp/article/jmps/advpub/0/advpub_151019b/_pdf/-char/en)

Pokorny, R. & Pham Ba Trung (2017)- The trace fossils in Da Lat Basin (Nha Trang district, Khanh Hoa Province, SE Vietnam). Geoscience Research Reports 50, p. 141-146. *(in Czech with English abstract)*
(online at: www.geology.cz/img/zpravyvyzkum/fulltext/10_Pokorny_170628.pdf)
(Da Lat basin in SE Vietnam initiated during marine transgression in E Jurassic (Hettangian, ~198 Ma) and ended by regression in M Jurassic (Bathonian, ~165 Ma). Aalenian- Bajocian with common molluscs (?Myophorella) and mid-outer shelf ichnofossils (Skolithis, Paleophycus, Thalassinoides))

Qian, X., Q. Feng, Y. Wang, C. Chonglakmani & D. Monjai (2016)- Petrochemistry and tectonic setting of the Middle Triassic arc-like volcanic rocks in the Sayabouli area, NW Laos. J. Earth Science (China) 27, 3, p. 365-377.
(online at: http://en.earth-science.net/PDF/20160612013151.pdf)
(Volcanic rocks from Sayabouli area in NW Laos traditionally mapped as Permian- E Triassic sequences on geologic map, but basaltic-andesite with zircon U-Pb age of 238±2 Ma, suggests M Triassic age. Rocks similar to continental arc volcanic rocks from Phetchabun belt in NE Thailand, through W Loei sub-belt (E-dipping subduction linked closing of Nan backarc basin between Sukhothai terrane and W margin of Indochina Block))

Racheboeuf, P., P. Ta Hoa, H.H. Nguyen, M. Feist & P. Janvier P. (2006)- Brachiopods, crustaceans, vertebrates, and charophytes from the Devonian Ly Hoa, Nam Can and Dong Tho formations of Central Vietnam. Geodiversitas 28, 1, p. 5-36.
(online at: http://sciencepress.mnhn.fr/sites/default/files/articles/pdf/g2006n1a1.pdf)
(New vertebrate remains from Devonian of C Vietnam (Indochina Block) provide further information about various fish fossils (similar to Yangtse Platform, S China block, brachiopods (Corbicularia, etc.) and charophytes (Sycidium))

Roger, F., M. Jolivet, H. Maluski, J.P. Respaut, P. Munch, J.L. Paquette, Tich Vu Van & Vuong Nguyen Van (2014)- Emplacement and cooling of the Dien Bien Phu granitic complex: Implications for the tectonic evolution of the Dien Bien Phu Fault (Truong Son Belt, NW Vietnam). Gondwana Research 26, p. 785-801.
(Dien Bien Phu and Muong Lay granites in N Vietnam exposed E and W of DPB fault. U/Pb age of ~277 Ma and considered related to subduction of Song Ma Ocean under Indochina Block during Indosinian orogeny.

Roger, F., P.H. Leloup, M. Jolivet, R. Lacassin, P.T. Tranh, M. Brunel & D. Seward (2000)- Long and complex thermal history of the Song Chay metamorphic dome (northern Vietnam) by multi-system geochronology. Tectonophysics 321, p. 449-466.
(Song Chay Range with high-grade granitic and metamorphic dome near Cenozoic Ailao Shan-Red River fault zone. Previously considered to be Proterozoic S China basement. Granite with zircon age of 428±5 Ma. Rb/Sr on ands 39Ar/40Ar ages suggest Late Triassic episode of rapid cooling interpreted as due to doming. AFT age of 33.6±3.6 Ma confirms rapid Eocene-Oligocene cooling event, final exhumation of Song Chay dome)

Roger, F., H. Maluski, C. Lepvrier, V.V. Tich & J.L. Paquette (2012)-, LA-ICPMS zircons U/Pb dating of Permo-Triassic and Cretaceous magmatism in northern Vietnam- geodynamic implications: J. Asian Earth Sci. 48, p. 72-82.
(NE Vietnam major tectonic episode with nappes emplacement in Triassic. Allochtonous structures intruded by E-M Triassic post-tectonic granitic melts (Phia Bioc granite intrusive; 245-248 Ma), possibly synchronous with strike-slip faulting events (250-245 Ma) in Truong Son Belt Indosinian orogen. Probably linked with intra-plate magmatism of Emeishan Large Igneous Province or with magmatism associated with Paleotethys closure. Cretaceous Phia Oac granite (87.3 ± 1.2 Ma) probably tied to 'late Yanshanian' Paleo-Pacific subduction)

Rossignol, C., S. Bourquin, E. Hallot, M. Poujol, M.P. Dabard, R. Martini, M. Villeneuve, J.J. Cornee, A. Brayard & F. Roger (2018)- The Indosinian orogeny: a perspective from sedimentary archives of north Vietnam. J. Asian Earth Sci. 158, p. 352-380.
(New Triassic stratigraphic framework for Song Da and Sam Nua basins, N Vietnam. Song Da Basin at S margin of S China Block in foreland setting during late E- M Triassic, not rift. Sam Nua basin on N margin of Indochina Block records activity of proximal magmatic arc from late Permian-Anisian, resulting from subduction of S-dipping oceanic slab that separated S China and Indochina blocks. Both basins M-L Triassic erosion, creating major unconformity from erosion of M Triassic Indosinian S China -Indochina collisional belt. Late Triassic terrestrial syn- to post-orogenic foreland basins with coarse detrital material)

Rossignol, C., S. Bourquin, E. Hallot, M. Poujol, M.P. Dabard, F. Roger, R. Martini & M. Villeneuve (2016)- Les bassins sedimentaires permo-triasiques Nord vietnamiens: archives de la collision Indochine- Chine du Sud (orogenese Indosinienne). Reunion des Sciences de la Terre 25, Caen, p. 280. *(Abstract only)*
('The Permo-Triassic sedimentary basins of North Vietnam: archives of the Indochina- South China collision (Indosinian orogeny)' Indosinian unconformity in N Vietnam postdates Middle Triassic. E Triassic arc S of Song Ma suture suggests S-dipping subduction of oceanic crust under Indochina Block)

Sanematsu, K., H. Murakami, Y Watanabe, S. Duangsurigna & S. Vilayhack (2009)- Enrichment of rare earth elements (REE) in granitic rocks and their weathered crusts in central and southern Laos. Bull. Geol. Survey Japan, 60, 11/12, p. 527-558.
(online at: https://www.gsj.jp/data/bulletin/60_11_02.pdf)

Saurin, E. (1935)- Sur quelques gisements de tectites de l'Indochine du Sud. Comptes Rendus Hebd. Academie Sciences, Paris, 200, 3, p. 246-248.
('On some deposits of tektites of Southern Indochina')

Schnetzler, C.C., L.S. Walter & J.G. Marsh (1988)- Source of the Australasian tektite strewn field: a possible offshore impact site. Geophysical Research Letters 15, 4, p. 357-360.
(Large negative Qui Nhon Slope Anomaly is sea surface depression of ~1.5 m over 100km diameter. Corresponds to gravity anomaly of ~ -50 mgal. May be impact structure that produced Australasian strewn field)

Serra, C. (1963)- Presence dôun *Brachoxylon rotnaensis* Mathiesen dans la flore mesozoique du Bas-Laos. ï Comptes Rendus 88 Congres nat. Soc. Savantes Science 2, Clermont Ferrand, p. 469ï 482.
(Presence of Brachoxylon rotnaensis Mathiesen in the Mesozoic flora of lower Laos')

Spagnuolo, S.A., J. Chambers & C. Luxton (2009)- Comparison of the geologic evolution and petroleum system of the Hai Phong sub-basin and the Phu Khanh Basin, offshore Vietnam. Proc. 2009 SE Asia Petroleum Expl. Soc. (SEAPEX) Conference, Singapore, p. 1-31. *(Abstract + Presentation)*
(Two underexplored basins off Vietnam, both with initial extension tectonics but have contrasting post syn-rift evolution. Phu Khan Basin no evidence for wrench fault system; mild M Miocene compressional event caused re-activation of pre-existing extensional faults. Compression event appears to have ceased by end M Miocene. Post M Miocene transformation of basin into passive margin with progradational-aggradational mega-sequences. Hai Phong sub-basin in N with major M Miocene and Late Pliocene inversion events)

Suasta, M., O. Arifin. & K. Suhanto (2014)- Gold mineralization along Ban Mai- Nakachan trend, west part of Sepon mineral district, Savannakhet Province, LAO PDR. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 319-329.

Sun, L.Q., H.F. Ling, K.D. Zhao, P.R. Chen, W.F. Chen, T. Sun, W.Z. Shen & G.L. Huang (2017)- Petrogenesis of Early Cretaceous adakitic granodiorite: implication for a crust thickening event within the Cathaysia Block, South China. Science China (Earth Sciences) 60, 7, p. 1237-1255.
(E Cretaceous Lingxi pluton in interior of Cathaysia Block (zircon U-Pb age 100 ± 1 Ma). Granodiorite with geochemical features of adakitic rocks, derived from partial melting of thickened Proterozoic lower continental crust at $P \geq 12$ kbar (= crust thickness ≥ 40 km), leaving garnet-bearing amphibolite residue. Crust thickened by late E Cretaceous compressive event (angular unconformity between Upper Cretaceous rift deposits and folded early Lower Cretaceous or Jurassic). During subsequent lithospheric extension (driven by Paleo-Pacific subduction?) lower crust heated by upwelling asthenospheric materials, resulting in Lingxi and other coeval granitoids in Cathaysia Block)

Thanh, N.X., Mai Trong Tu, T. Itaya & S. Kwon (2011)- Chromian-spinel compositions from the Bo Xinh ultramafics, northern Vietnam; implications on tectonic evolution of the Indochina Block. J. Asian Earth Sci. 42, 3, p. 258-267.
(Bo Xinh ultramafics, N of Song Ma fault zone isolated bodies long considered as remnants of Paleotethys Ocean lithosphere between Indochina and S China blocks. Cr-spinel compositions suggest parental magma was lherzolite-harzburgite in composition, indicating forearc tectonic environment. Combined with information on magmatism, metamorphism and sedimentary environment, suggest presence of S-ward subduction zone since Cambrian and collision of Indochina and S China in Late-Silurian- E Devonian. Permian-Triassic magmatic-metamorphic events in Indochina block linked to N-ward subduction of Paleo-oceanic plate beneath Indochina block, followed by M-L Triassic Sibumasu collision)

Thanh, T.D., P. Janvier & T.H. Phuong (1996)- Fish suggests continental connections between the Indochina and South China blocks in Middle Devonian time. Geology 24, 6, p. 571-574.
(Yunnanolepiform antiarch (placoderm fish) from the Givetian Dong Tho Fm of C Vietnam, well S of Song Ma suture, in marginal marine facies. Hitherto known exclusively from Lower Devonian of S China block, suggesting close links between Indochina and South China blocks in M Devonian time)

Thassanapak, H., M. Udchachon & C. Burrett (2017)- Silurian radiolarians from the Sepon Mine, Truong Son Terrane, central Laos and their palaeogeographic and tectonic significance. Geol. Magazine *(in press)*
(Late Silurian radiolarian fauna of 18 species from cherts in Sepon Mine area, C Laos. With Futobari morishitai, F. solidus, Zadrappolus yoshikiensis and Z. tenuis. Evidence from Silurian-Devonian of S Truong Son Terrane indicates deepening to S (radiolarian cherts; terrestrial red sandstone facies to NE). In contact with E Silurian limestone and U Ordovician- E Silurian graptolitic shale, overlain by turbiditic volcaniclastics from nearby Long Dai Volcanic Arc. Arc probably maintained by N-ward subduction along Thakhek-Danang Shear Zone)

Tong-Dzuy, T., P. Ta Hoa, A.J. Boucot, D. Goujet & P. Janvier (1997)- Vertebres siluriens du Viet Nam Central. Compte Rendus Academie Sciences, Paris, IIa, 324, p. 1023-1030.
('Silurian vertebrates from Central Vietnam'. New placoderm fish Myducosteus anmaensis from Indochina Plate, associated with brachiopods)

Tong-Dzuy T., T.H. Phuong, P. Janvier, Nguyen H. Hong, Nguyen T.T. Coc & Nguyen.T. Duong (2013)- Silurian and Devonian in Vietnam- stratigraphy and facies. J. Geodynamics 69, p. 165-185.
(Review of Silurian and Devonian sediments in Vietnam. Most Devonian units in N and C Vietnam consist of shelfal shallow water sediments, apparently deposited in passive margin marine setting)

Tong-Dzuy, Thanh & Vu Khuc (eds.) (2011)- Stratigraphic units of Vietnam, 2nd Edition. Vietnam National University Publ., Hanoi, p. 1-553.

Tran Ngoc Nam (1995)- The geology of Vietnam: A brief summary and problems. Geoscience Repts. Shizuoka University 22, p. 1-10.
(online at: https://ci.nii.ac.jp/els/contents110000413364.pdf?id=ART0000542361)
(Vietnam five structural blocks, from N to S: NE, NW, Truongsong, Kontum, Nambo)

Tran Van Tri, Do Canh Duong, Dang Quoc Lich et al. (2016)- Coal-forming episodes in Vietnam, Cambodia and Lao PDR. In: Development of the Asian Tethyan Realm: genesis, process and outcomes, 5th Int. Symposium Int. Geoscience Program (IGCP) Project 589, Yangon, p. 50-53. *(Extended Abstract)*
(online at: http://igcp589.cags.ac.cn/5th%20Symposium/Abstract%20Volume.pdf)
(Coal-forming episodes in Indochina region: M-L Devonian, E Carboniferous, Late Permian, Late Triassic, E Jurassic, Tertiary and Quaternary. Only E Carboniferous, Late Triassic and Tertiary coals economically important)

Tsuchiyama, Y., H. Zaman, S. Sotham, Y. Samuth, E. Sato, H.S. Ahna, K. Unoe, K. Tsumura, Masako Miki, Y. Otofuji (2016)- Paleomagnetism of Late Jurassic to Early Cretaceous red beds from the Cardamom Mountains, southwestern Cambodia: Tectonic deformation of the Indochina Peninsula. Earth Planetary Sci. Letters 434, p. 274-288.
(Paleomag of Late Jurassic- E Cretaceous red beds in Phuquoc-Kampot Som Basin (part of Indochina Block) suggests S-ward displacement of 6.0 ± 3.5° and CW rotation of 33 ± 4°. CW rotation ~15° larger than Khorat Basin, attributed to dextral motion along Wang Chao Fault since M Oligocene. Comparison with CCW rotation reported from Da Lat area in Vietnam suggests differential tectonic rotation in S tip of Indochina Block)

Udchachon, M., H. Thassanapak & C. Burrett (2017)- Early Permian radiolarians from the extension of the Sa Kaeo Suture in Cambodia- tectonic implications. Geol. Magazine , p. *(in press)*
(E-W melange-ophiolite belt, 3 km wide-20 km long, separating northern block of amphibolitic Pailin Crystalline Complex from southern area of Triassic submarine fan siliciclastic rocks. Cherts with Asselian-Sakmarian radiolarian fauna of Pseudoalbaillella spp, etc.. Sa Kaeo Suture appears to extends E into Cambodia and possibly then turns S-wards along strike of Pursat-Kampot Foldbelt)

Ueno, K. (1999)- *Robustoschwagerina*-bearing limestone pebbles from southern Laos. Ann. Rept. Institute of Geoscience, University of Tsukuba, 24, p. 57-64.

Ueno, K., T. Charoentitirat, Y. Kamata, K. Khamphavong, K. Hisada, P. Charusiri, H. Hara & S. Chantraprasert (2010)- Late Paleozoic carbonates and foraminiferal faunas in northern Lao PDR: their geotectonic implications. In: Proc. Thai-Lao Tech. Conf. on Geology and Mineral Resources, Bangkok, p. 141-146. *(Extended Abstract)*
(online at: www.eatgru.sc.chula.ac.th/Thai/research/pdf/paper_2/102.pdf)
(N Laos Carboniferous and Permian limestones NW of Luang Prabang and S of Sayabouli. Carboniferous limestone with Profusulinella, Fusulinella, Beedeina, and Fusulina. E-M Permian platform carbonates with Yangchienia, Parafusulina, Neoschwagerina, Afghanella, Presumatrina, Verbeekina, etc. Similar to W margin

of Indochina Block in Loei area of M Thailand, suggesting link between NE Thailand and NW Laos. Nan-Uttaradit Suture between Sukhothai zone and Indochina Block runs NNE-ward into NW Laos and continues to Lancangjiang suture in W Yunnan)

Ueno, K., N. Hayakawa, T. Nakazawa, Y. Wang & X.D. Wang (2013)- Pennsylvanian- Early Permian cyclothemic succession on the Yangtze carbonate platform, South China. In: A. Gasiewicz & M. Slowakiewicz (eds.) Palaeozoic climate cycles: their evolutionary and sedimentological impact. Geol. Soc., London, Spec. Publ. 376, p. 235-267.
(Large Carboniferous-Permian Yangtze carbonate platform of S China (Yangtze) Block), with 26 Late Carboniferous- E Permian cyclothems identified. Probably rel. arid climate))

Ueno, K., Y. Kamata, K. Uno, T. Charoentitirat, P. Charusiri, K. Vilaykham & R. Martini (2018)- The Sukhothai Zone (Permian-Triassic island-arc domain of Southeast Asia) in Northern Laos: insights from Triassic carbonates and foraminifers. Gondwana Research, p. *(in press)*
(Sukhothai Zone Permian-Triassic Paleo-Tethyan island-arc system along W margin of Indochina Block considered to extend from N Thailand to SW Yunnan (China), but no evidence from N Laos in between. Foraminifers from shallow marine limestone in Long area of NW Laos of Triassic (Carnian) age (Aulotortus sinuosus, A. tumidus, Ophthalmidium, Endotriada, Endoteba, Palaeolituonella, etc.). In Thailand similar Carnian limestone only in Doi Long Fm in Sukhothai Zone)

Ueno, K., A. Miyahigashi, Y. Kamata, K. Hisada, H. Hara, K. Uno, T. Charoentitirat, P. Charusiri et al. (2014)- Permian and Triassic carbonates in the Oudom Xai- Luang Namtha area, northern Laos: stratigraphical and paleontological constraints for connecting Northern Laos with Northern Thailand. In: Development of the Asian Tethyan Realm, Proc. 3rd Int. Symposium Int. Geosciences Program (IGCP) Project 589, Tehran 2014, p. 2-4. *(Extended Abstract)*
(Permian limestones in N Laos dominated by sponge- Tubiphytes-microbial reefal boundstone with Colaniella cylindrica, Agathammina, Pachyphloia, Neoendothyra, Reichelina, Palaeofusulina?, etc., referable to Changhsingian (latest Permian). Also M Triassic (Anisian) carbonates with ooid grainstones and Late Triassic (Carnian) sponge-microbial boundstones. In Thailand similar carbonate succession only in Lampang-Phrae-Nan area of Sukhothai Zone, suggesting Sukhothai Zone extends to W part of N Laos)

Vozenin-Serra, C. & E. Boureau (1978)- Sur l'interet phytostratigraphique du bassin houiller mesozoique de Nong-Son-Vinh Phuoc dans le centre Vietnam et ses rapports avec la phylogenie des especes. Comptes Rendus Hebd. Academie Sciences, Paris, D, 287, 8, p. p. 791-796.
('The phytostratigraphic significance of the Mesozoic Nong-Son-Vinh Phuoc coal basin, Central Vietnam, and phylogeny of species')

Vu Khuc, D. & J.A. Grant-Mackie (1997)- A new Bajocian molluscan faun, Dalat Basin, southern Vietnam. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Bangkok, Dept. Mineral Resources, 1, p. 142. *(Abstract only)*
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(Discovery of new M Jurassic (E Bajocian) marine fauna in Langa Fm of Datat Basin, S Vietnam, incl. ammonite Fontannesia and bivalves Bositra ornati and B. buchii)

Vysotsky, V.I., R.D. Rodinikova & M.N. Li (1994)- The petroleum geology of Cambodia. J. Petroleum Geol. 17, p. 195-210.
(Six possibly oil-gas-bearing basins identified in Cambodia: Siam (N Gulf of Thailand), Tonle Sap, Khorat (S portion), Preah, Chung and Svairieng Basins)

Wang, D. & L. Shu (2012)- Late Mesozoic basin and range tectonics and related magmatism in Southeast China. Geoscience Frontiers (China University of Geosciences, Beijing) 3, 2, p. 109-124.
(online at: www.sciencedirect.com/science/article/pii/S1674987111001095)
(M Jurassic- Late Cretaceous extensional basin and range tectonics and associated magmatism widespread in SE China, tied to W Pacific Plate subduction. Basin types: (1) post-orogenic Late Triassic- E Jurassic with

coarse clastics, and (2) intra-continental extensional basins, formed during crustal thinning and characterized by development of grabens/ half-grabens. Grabens mainly E-M Jurassic, with bimodal volcanism; half-grabens E Cretaceous, with rhyolitic tuff- lavas and mainly Late Cretaceous-Paleogene redbeds. Ranges composed of granitoids, volcanic rocks and dome-type metamorphic core complexes. Basin and range terrane developed on pre-Mesozoic folded belt, derived from polyphase tectonic evolution, mainly due to subduction of W Pacific Plate since Late Mesozoic)

Wang, X.D., W. Qie, Q. Sheng, Y. Qi, Y. Wang, Z. Liao, S. Shen & K. Ueno (2013)- Carboniferous and Lower Permian sedimentological cycles and biotic events of South China. In: A. Gasiewicz & M. Slowakiewicz (eds.) Palaeozoic climate cycles: their evolutionary and sedimentological impact, Geol. Soc., London, Spec. Publ. 376, p. 33-46.

Wei, W., M. Faure, Y. Chen, W. Lin, Q. Wang, Q. Yan & Q. Hou (2015)- Back-thrusting response of continental collision: Early Cretaceous NW-directed thrusting in the Changle-Nanĝao belt (Southeast China). J. Asian Earth Sci. 100, p. 98-114.
(SE coastal area of S China Block generally interpreted as Cretaceous active continental margin due to subduction of Paleo-Pacific plate beneath Eurasian plate. NW-directed ductile thrusting at ~130-105 Ma, before deposition of undeformed (~104 Ma) volcanic rocks and intrusion of ~90 Ma plutons. Interpreted as back-thrust resulting W Philippines microcontinent collision with SCB rather than effect of oceanic subduction)

Wen, S., Y.L. Yeh, C. Tang, H.P. Lai, V.T. Dinh, W.Y. Chang & C. Chen (2015)- The tectonic structure of the Song Ma fault zone, Vietnam. J. Asian Earth Sci. 107, p. 26-34.
(Seismotectonic structures of Song Ma fault zone indicate a complex fault system at different segments)

Xia S., Y. Shen, D. Zhao & X. Qiu (2015)- Lateral variation of crustal structure and composition in the Cathaysia Block of South China and its geodynamic implications. J. Asian Earth Sci. 109, p. 20-28.

Xia, W., J. Zhou, W. Yuan, S. Zhang & Y. Yang (1994)- Genetic stratigraphic framework and evolutional history of Late Triassic foreland basins in South China. Earth Science. J. China University of Geoscience 19, 1, p. 19-29. *(in Chinese)*
(Late Triassic foreland basin in W Guizhou and E Yunnan provinces))

Xing, X., Y. Wang & Y. Zhang (2016)- Detrital zircon U-Pb geochronology and Lu-Hf isotopic compositions of the Wuliangshan metasediment rocks in SW Yunnan (China) and its provenance implications. J. Earth Science (China) 27, 3, p. 412-424.
(online at: http://en.earth-science.net/PDF/20160613095735.pdf)
(Wuliangshan Gp low-grade metasediments E of Lancang giant igneous zone, SW Yunnan, syn-orogenic product of collision between Baoshan with Simao-Indochina blocks. Detrital zircons major age-peak at ∼259 Ma, four subordinate-peaks at ∼1859, 941, 788 and 447 Ma. Youngest zircon age of 230±5 Ma suggests deposition after M Triassic. Provenance mainly from Simao/ Yangtze blocks to E rather than Baoshan Block to W)

Yonemura, K., Y. Osanai, N. Nakano, M. Owada & S. Baba (2013)- Petrology, geochemistry, and origin of metamorphosed mafic rocks of the Trans Vietnam orogenic belt, Southeast Asia. J. Mineralogical Petrological Sci. 108, p. 55-86.
(online at: https://www.jstage.jst.go.jp/article/jmps/108/2/108_120813/_pdf)
(NW-SE trending Trans-Vietnam Orogenic Belt thought to have formed by continent-continent collision between S China and Indochina blocks in Permian- Triassic. Amphibolite-facies metamorphosed mafic rocks widespread in Song Ma suture zone, Kontum Massif, etc., derived from arc and oceanic crust between these plates)

Yu, Y., S.S. Gao, K.H. Liu, T. Yang, M. Xue & Khanh Phon Le (2017)- Mantle transition zone discontinuities beneath the Indochina Peninsula: implications for slab subduction and mantle upwelling. Geophysical Research Letters 44, 14, p. 7159-7167.

(Velocity model shows evidence for presence of slab segments in Mantle Transition Zone beneath C and slab window beneath W Indo-China plate. Also broad mantle upwelling adjacent to E edge of slab segments, which may responsible for widespread Cenozoic volcanism and pervasive low upper mantle velocities in area)

Zhao, J., J. Qiu, L. Liu & R. Wang (2016)- The Late Cretaceous I- and A-type granite association of southeast China; implications for the origin and evolution of post-collisional extensional magmatism. Lithos 240-243, p. 16-33.
(SE China coast granites two groups: (1) in N, I-type alkali-feldspar granites generated by mixing of mantle-derived material with crustal-derived magmas (98-96 Ma); and (2) in S, A-type plutons (89-86 Ma). All granites highly siliceous, K-rich. Both granite types emplaced during post-collisional extensional tectonism associated with rollback of steeply subducting Paleo-Pacific Plate (increase of dip angle of subducted Paleo-Pacific plate between Early- Late Cretaceous)

Zhao, X., Y. Jiang, G. Xing, M. Yu, J. Mao & S. Yu (2018)- Newly discovered Late Cretaceous adakites in South Fujian Province: Implications for the late Mesozoic tectonic evolution of Southeast China. Island Arc, p. *(in press)*
(Late Cretaceous Yongchun pluton adakitic intrusion in S Fujian, SE China. Zircon U-Pb ages of ~98-100 Ma, similar to those of nearby plutons. Magmas generated by partial melting of Mesoproterozoic continental crust mixed with mantle-derived magmas. Magmatism associated with thickening of lower crust during change in subduction angle and convergence rate of Paleo-Pacific Plate at 100 Ma)

Zhong, W.F., Q.L. Feng, C. Chonglakmani, D. Monjai & Z.B. Zhang (2012)- Permian-Triassic stratigraphic correlations between Laos and Yunnan and their tectonic significance. Earth Science (J. China University of Geosciences) 2012, S2, p. 73-80.
(New work in NW Laos shows Permian- Triassic (incl. U Permian clastics with coal) between Luangprabang and Chiang Rai belts are comparable to Simao basin between Ailaoshan and Lancangjiang belts. Nan River belt in N Thailand can therefore not be linked with Lancangjing belt by crossing NW Laos)

Zi, J.W. (2012)- Late Paleozoic- Triassic tectono-magmatism in the Paleo-Tethys ocean, SW China: timing, nature and implications for continental amalgamation and orogenic processes. Ph.D. Thesis, University of Western Australia, Perth, p. 1-189.
(online at: research-repository.uwa.edu.au/files/3214568/Zi_Jianwei_2012.pdf)

Zi, J.W., P.A. Cawood, W.M. Fan, E. Tohver, Y.J. Wang, T.C. McCuaig & T.P. Peng (2013)- Late Permian-Triassic magmatic evolution in the Jinshajiang orogenic belt, SW China and implications for orogenic processes following closure of the Paleo-Tethys. American J. Science 313, 2, p. 81-112.
(Jinshajiang orogenic belt, SW China, records closure of Paleo-Tethys seaway and ensuing collision. Following consumption of the ocean,M Triassic (247-237 Ma) collision zone magmatism. From 234-214 Ma emplacement of high-K, calc-alkaline granodiorites-monzogranites prior to isostatic uplift and extension, probably caused by breakoff of subducted slab. Melange and collision-related magmatic suites unconformably overlain by Late Triassic (229-217 Ma) conglomerate-rich sequence that represents overlap assemblage, across Qamdo-Simao terrane (Indochina) and Yangtze Block of S China)

Zi, J.W., P.A. Cawood, W. Fan, Y. Wang, E. Tohver, C. McCuaig & T. Peng (2012)- Triassic collision in the Paleo-Tethys Ocean constrained by volcanic activity in SW China. Lithos 144-145, p. 145-160.
(Collision-related Triassic volcanic rocks in Jinshajiang-Ailaoshan orogenic belt in SW China suggest initial collision and amalgamation of Qamdo-Simao (Indochina) terrane with Yangtze Block (S China) along Jinshajiang- Ailaoshan and Song Ma sutures probably in E Triassic, following consumption of Paleo-Tethys Ocean. 247-246 Ma Pantiange high-Si rhyolites represent early magmatic products. 245-237 Ma bimodal volcanism interpreted as extension within evolving collisional orogen, probably related to oblique convergence)

Zuo, X., L.S. Chan & J.F. Gao (2017)- Compression-extension transition of continental crust in a subduction zone: A parametric numerical modeling study with implications on Mesozoic-Cenozoic tectonic evolution of the Cathaysia Block. PlosS One 12, 2, e0171536, p. 1-35.

(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5300286/pdf/pone.0171536.pdf)
(Numerical modeling of transition from Mesozoic compression to extension in Cathaysia Block, SE China (upper plate of Paleo-Pacific subduction zone). Initiation of Late Cretaceous- Paleogene extensional regime probably triggered by roll-back of slowly subducting slab)

IX.6. Malay Basin, Gulf of Thailand (19)

Alqahtani, F.A., C.A.L. Jackson, H.D. Johnson & M.R.B. Som (20175)- Controls on the geometry and evolution of humid-tropical fluvial systems: insights from 3D seismic geomorphological analysis of the Malay Basin, Sunda Shelf, Southeast Asia. J. Sedimentary Res. 87, 1, p. 17-40.
(High-resolution 3D seismic data from Malay Basin Pleistocene- Recent shows six fluvial channel types in eight 18-145m-thick depositional units, with (1) relatively large (300-3000m wide, 15-45m deep) and straight channels at bases, and (2) smaller (75-250m wide, 8-23m deep), highly sinuous channels at tops. Cyclical architecture interpreted as mainly climatically driven changes in fluvial sediment supply. Two large incised valleys interpreted to be formed due relative sea-level fall during Last Glacial Maximum)

Centhonglang, C., P. Promsen, P. Loboonlert, T. Charoenpun & J. Yingyuen (2015)- Success of structural stratigraphic combination trap, Arthit Field, Gulf of Thailand. AAPG/SEG Intl Conf. Exhib., Melbourne, Search and Discovery Art. 20333, 2p. *(Abstract + Poster)*
(online at: www.searchanddiscovery.com/documents/2015/20333centhonglang/ndx_centhonglang.pdf)
(Arthit gas field in NW North Malay Basin, offshore Thailand, mostly in Miocene- Oligocene reservoir. Most of the gas production from stacked channel reservoir in structural traps. 2012 appraisal well confirmed gas in 'nose structure' combination trap)

Clark, S.J.A. & R.C. Davis (2017)- Observations of hydrocarbon migration within the Jasmine Field and the impact on risk assignment for exploration prospectivity in Eastern Block B5/27, Gulf of Thailand. In: Proc. SE Asia Petroleum Expl. Soc. (SEAPEX) Exploration Conf. 2017, Singapore, Session 8, 4p. *(Extended Abstract)*
(Jasmine Field (Jasmine and Ban Yen) in NW Pattani Basin, Gulf of Thailand. Discovered in 1974, cumulative production 65 MMSTB Oil from >160 pools in 30 fault blocks and 27 M-L Miocene reservoirs. Oils appear to be expelled from similar organofacies at similar maturities, from kitchen S of Ban Yen area)

Hassaan, M., S.K. Bhattacharya, M.J. Mathew & N.A. Siddiqui (2015)- Understanding basin evolution through sediment accumulation modeling: a case study from Malay Basin. Research J. Applied Sciences, Engineering Technology 11, 4, p. 388-395.
(online at: http://maxwellsci.com/msproof.php?doi=rjaset.11.1792)
(Malay Basin with up to 14 km of sediments. Sedimentation rate analysis and 2D modeling suggest sediment accumulation started at 33.9 Ma towards the basinal side, possibly associated to activation of Tenggol fault. Prior to unit K (25.2 Ma) sediments absent on Tenggol arch. During Late Miocene basin wide inversion sediments still accumulated in SW part)

Jamaludin, S.N.F., A.H. Abdul Latiff & A.A.Kadir (2016)- Interpretation of gas seepage on seismic data: example from Malaysian offshore. In: 3rd Int. Conf. AeroEarth, Jakarta 2015, IOP Conf. Series 30, 012002, p. 1-6.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/30/1/012002/pdf)
(Features of gas seepage on Malay Basin seismic data (amplitude anomalies, wipe out zones, sag or push down, pockmarks/ craters, etc.)

Jardine, E. (1997)- Dual petroleum systems governing the prolific Pattani basin, offshore Thailand. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 2, p. 525-534.
(same as Jardine 1997)

Kachi, T., H. Yamada, K. Yasuhara, M. Fujimoto, S. Hasegawa, S. Iwanaga & R. Sorkhabi (2005)- Fault-seal analysis applied to the Erawan gas-condensate field in the Gulf of Thailand. In R. Sorkhabi & Y. Tsuji (eds.) Faults, fluid flow, and petroleum traps, AAPG Memoir 85, p. 59-78.
(Unocal Erawan gas field in Gulf of Thailand with series of E- and W-dipping normal faults that displace E-M Miocene clastic reservoirs. Most faults adequate seal capacity)

Kaewkor, C., I.M. Watkinson & P. Burgess (2015)- Structural style and evolution of the Songkhla Basin, western Gulf of Thailand. Proc. Int. Conf. Geology, Geotechnology and Mineral Resources of INDOCHINA, Khon Kaen, Thailand (GEOINDO 2015), 12p.
(Gulf of Thailand part of suite of Cenozoic basins within Sundaland, with multiple phases of extension and inversion, rapid post-rift subsidence, low-angle normal faults and Basin and Range-style. Songkhla Basin in SW Gulf asymmetric half-graben, bounded by NNW-SSE- faults along W edge, ~75 km long, 30 km wide. Two oil fields in basin. Pre-Cenozoic basement fabrics broadly N-S. Sediments thicken to W along growth fault surfaces; most faults E-dipping. Three main tectonostratigraphic packages in basin: 1) Eocene E Miocene syn-rift, with three sub-extensional packages; 2) early M Miocene inversion and deposition of post-rift package, terminated by M-Miocene Unconformity; 3) Late Miocene-Recent post-rift)

Kartikasari, H.A. (2011)- Structural style of Songkhla Basin, Gulf of Thailand. Bull. Earth Sciences Thailand 4, 2, p. 38-47.
(online at: www.geo.sc.chula.ac.th/BEST/volume4/number2/4_Heliosita_BEST_4_2_p%2025-31.pdf)
(Songkhla Basin in Western Graben of Gulf of Thailand asymmetric half-graben, bounded by NNW-SSE-trending major extensional faults. Basin fill thicker in W due to growth faulting. Maximum displacement along main boundary fault in W ~1.2 km in E Oligocene. Most faults E-dipping. Three tectonic phases: Eocene or E Oligocene initial rifting, E Miocene inversion, M Miocene resumption of extensional tectonics)

Lambiase, J.J., J. Narapan & P. Champasa (2017)- Marginal marine mudstones in the Pattani Basin, Gulf of Thailand: implications for stratigraphic development, reservoir characterization and correlation potential. AAPG/SPE 2016 Int. Conf. Exhib., Barcelona 2016, Search and Discovery Art. 51366, 21p. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2017/51366lambiase/ndx_lambiase.pdf)
(E-M Miocene late rift- early post-rift sediments in Gulf of Thailand traditionally viewed as fluvial, but also widely distributed marginal marine mudstones and coaly mudstones and tide-dominated sandy facies)

Minezaki, T. & K. Moriyama (2002)- The origin of hydrocarbon and carbon dioxide in the gas fields for the Pattani Trough, the Gulf of Thailand. J. Japanese Association Petroleum Technology 67, 1, p. 16-29.
(online at: https://www.jstage.jst.go.jp/article/japt1933/67/1/67_16/_pdf/-char/en)
(In Japanese with English abstract. Gases in Pattani Trough derived from thermal cracking of Type III kerogens and cracking of pre-existing oils. Oils waxy and heavy, probably of lacustrine algal origin. Two different source facies, Oligocene lacustrine-algal and Miocene fluvial-coaly. Oil generation from Oligocene source rocks initiated in E Miocene, and gas generation mainly M-L Miocene in central trough. CO2 contents increase with depth from few to ~25% in trough. Some wells CO2 as high as 91%. (Platong gas field), probably of inorganic origin (magmatic decomposition of carbonate basement)

Paramita, D. (2012)- Structural evolution of the Songkhla Basin, Gulf of Thailand: a palinspastic restoration Study. Bull. Earth Sciences Thailand 5, 2, p. 38-47.
(online at: www.geo.sc.chula.ac.th/BEST/volume5/number2/Dini_02.pdf)
(Songhla Basin in Gulf of Thailand N-S trending, Eocene rift basin. Early Oligocene and Late Oligocene- E Miocene local inversion structures at E and W sides of basin in overall extensional regime)

Pradidtan, S. C. Singhasenee & R. Charusirisawad (1990)- Stratigraphy of Tertiary basins in the Gulf of Thailand. In: Proc. Development geology for Thailand into the year 2000, Chulangkorn University, Bangkok, p. 408-429.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1990/24729.pdf)

Puchağa, R.J., S.J. Porebski, W.R. Sliwinski & C.J. August (2011)- Pleistocene to Holocene transition in the central basin of the Gulf of Thailand, based on geoacoustic survey and radiocarbon ages. Marine Geology 288, p. 103-111.
(Acoustic and coring record of Last Glacial Maximum and postglacial sea-level rise in central Gulf of Thailand. Valley incision (Kelantan River), followed by estuarine- marine transgression, interrupted by deltaic progradation. Transgressive ravinement followed by thin, condensed cover of modern marine muds)

Radzi, A., Y. Bazleigh & A. Khalil (2016)- Quantifying the uncertainty of Gross Rock Volume: a decade of time-to-depth conversion in Sepat Field, Malay Basin. First Break 34, p. 73-77.
(On estimates of GRV from seismic data in Sepat Field in Malay Basin (1983 discovery, structure 30km x 10 km E-W trending structure dissected by normal faults)

Rivas, S., J.O.W. Grimmer, A. Alaminos & J. Navarro (2017)- Basin modelling at the Songkhla Basin (Gulf of Thailand) or: How many source rocks do I have? AAPG/SEG Int. Conf. Exhib., Barcelona 2016, Search and Discovery Art. 10922, 10p. *(Abstract + Presentation)*
(online at: www.searchanddiscovery.com/documents/2017/10922rivas/ndx_rivas.pdf)
(Songkhla basin in W Gulf of Thailand, with several producing oil fields. Asymmetric Tertiary rift basin formed between 40-20 Ma, controlled by NNW-SSE faults mainly at W side, filled by Eocene-Miocene continental sequence. Reservoir intervals fluvial- alluvial sandstones of Eocene, Lower Oligocene and Lower Miocene age. Lower Oligocene lacustrine shales are supposed source rocks of basin)

Supriatna, J.M. (2011)- Maturity modeling of the Songkhla Basin. Bull. Earth Sciences Thailand 4, 2, p. 32-35.
(online at: www.geo.sc.chula.ac.th/BEST/volume4/number2/5_Jana_BEST_4_2_p%2032-35.pdf)

Yamada, H., T. Kachi, J. Maeda & N. Hashimoto (2008)- Recent exploration and development in the Gulf of Thailand oil and gas fields- Investigation of field developing technology and application of fault seal analysis. J. Japanese Association Petroleum Technology 73, 1, p. 74-82.
(online at: https://www.jstage.jst.go.jp/article/japt/73/1/73_1_74/_pdf/-char/en)
(in Japanese, with English abstract)

Zhang, J., Y. Lu, B. Shi, N. Xu, G. Fan, F. Lu & D. Shao (2014)- Eocene petroleum play: new petroleum system in northeast Gulf of Thailand. Haiyang Xuebao 36, 7, p. 70-76.
(online at: http://english.hyxb.org.cn/EN/abstract/abstract4519.shtml)
(Chinese with English summary. NE Gulf of Thailand stronger inversion structures than elsewhere, enabling petroleum play with Eocene lacustrine source, Eocene- Oligocene deltaic sandstone reservoirs and Miocene delta front and marine shale seals)

IX.7. South China Sea (82)

Bai, Y.L., S.G. Wu, Z. Liu, R.D. Muller, S.E. Williams, S. Zahirovic & D. Dong (2015)- Full-fit reconstruction of the South China Sea conjugate margins. Tectonophysics 661, p. 121-135.
(Restoration of conjugate margins of S China Sea to original Late Cretaceous unstretched geometries. Model suggests more extension of continental basement on W part of conjugate margins relative to E margin prior to initiation of seafloor spreading. Mid ocean ridge initially formed in E and propagated W-ward)

Bochu, Y., L. Wang, N. Wu & T. Dizhi (2005)- Cenozoic tectonic evolution and the 3D structure of the lithosphere of the South China Sea. Geol. Bull. China 24, 1, p. 1-8. *(In Chinese, with English Abstract)*

Bochu, Y., L. Wang & Z. Liu (2004)- Tectonic dynamics of Cenozoic sedimentary basins and hydrocarbon resources in the South China Sea. Earth Science. J. China University of Geoscience 29, 5, p. 543-549. *(In Chinese, with English Abstract)*

Boubacar, L., J. Ren, J. Zhang & C. Lei (2015)- En echelon faults and basin structure in Huizhou Sag, South China Sea: implications for the tectonics of the SE Asia. J. Earth Science (China) 26, 5, p. 690-699.
(Huizhou sag on N continental margin of S China Sea with en echelon fault distribution at margins of basin, suggesting oblique extension and caused by subduction of Proto-South China Sea towards NW Borneo. Tectonic evolution of basin: rifting (49–32 Ma), post-rift (32–15.5 Ma) and rapid subsidence (15.5-0 Ma))

Buhring, C., M. Sarnthein & H. Erlenkeuser (2004)- Toward a high-resolution stable isotope stratigraphy of the last 1.1 M.y.: Site 1144, South China Sea. In: W.L. Prell et al. (eds.) Proc. Ocean Drilling Program (ODP), Scientific Results 184, Chapter 2, p. 1-29.
(online at: www-odp.tamu.edu/publications/184_SR/VOLUME/CHAPTERS/205.PDF)
(High-resolution oxygen and carbon stable isotope statigraphy of 518m-long cored Quaternary section of ODP Site 1144 in northern S China Sea. One 5 cm thick layer with Australasian microtektites (386.18- 386.23 mcd) near Brunhes/Matuyama boundary and within transition of lower MIS 19- MIS 20 oxygen isotope stages. Proposed age model layer suggests age of microtektites layer 787 ka. Microtektite layer also in SONNE-95 core 17957 from southern SCS, within MIS 19–20 transition, 10 cm (~11.6 ky) below Brunhes/Matuyama reversal)

Bui Viet Dung (2011)- The Late Quaternary evolution of the southern Vietnamese continental shelf. Ph.D. Thesis, Christian-Albrechts Universitat, Kiel, p. 1-118.
(online at: http://d-nb.info/1013154398/34)

Bui Viet Dung, K. Stattegger, D. Unverricht, P. Van Phach & N.T. Thanh (2013)- Late Pleistocene-Holocene seismic stratigraphy of the Southeast Vietnam Shelf. Global Planetary Change 110, p. 156-169.
(Late Pleistocene-Holocene sequence of SE Vietnam Shelf with basal sequence boundary formed by subaerial exposure during Late Pleistocene sea-level fall and subsequent marine reworking during transgression. Northern incised-valley system narrow and deep V-shape in cross-section (<5 km wide, 10s of m deep) likely result of high-gradient of paleo-shelf. Off Mekong Delta and Ca Mau Peninsula low-gradient paleo-shelf created shallow incised-valleys (5-15 km wide, <15m deep. Lowstand ST prograding outer shelf delta-wedge formed during Last Glacial Maximum. Transgressive ST preserved in incised-valleys, with thickness 15-25m)

Bui Viet Dung, K. Stattegger, N.T. Thanh, P. Van Phach, T.T. Dung & B.X. Thong (2014)- Late Pleistocene-Holocene seismic stratigraphy of Nha Trang shelf, central Vietnam. Marine Petroleum Geol. 58, p. 789-800.
(Two sequences in Late Pleistocene-Holocene on steep and narrow shelf off Nha Trang. Relict beach ridge deposits ~130m below present water depth indicate Last Glacial Lowstand sea level in this area lower than in neighboring areas, probably resulting from subsidence due to high sedimentation rate and/or neotectonic movements of E Vietnam Fault System)

Cameselle, A.L., C.R. Ranero, D. Franke & U. Barckhausen (2017)- The continent-ocean transition on the northwestern South China Sea. Basin Research 29, S1, p. 73-95.

Cao, Y., C.F. Li & Y. Yao (2017)- Thermal subsidence and sedimentary processes in the South China Sea Basin. Marine Geology 394, p. 30-38.
(Differences in sedimentation rate changes and calculated subsidence between East and SW subbasins of S China Sea. Abrupt increase in sedimentation rates since Pliocene suggestst glacial-interglacial climate variability impacted erosion rates)

Chang, J.H., H.H. Hsieh, A. Mirza, S.P. Chang, H.H. Hsu, C.S. Liu, C.C. Su, S.D. Chiu et al. (2017)- Crustal structure north of the Taiping Island (Itu Aba Island), southern margin of the South China Sea. J. Asian Earth Sci. 142, p. 119-133.
(Taiping Island in Spratly (Nansha) Islands in northern part of S margin of SW Sub-basin of S China Sea. Basement highs dominated by fault blocks and volcanic basement structures)

Clift, P.D. (2015)- Coupled onshore erosion and offshore sediment loading as causes of lower crust flow on the margins of South China Sea. Geoscience Letters 2, 13, p. 1-11.
(online at: https://link.springer.com/article/10.1186/s40562-015-0029-9)
(Several basins around S China Sea with accelerated phases of basement subsidence associated with phases of fast erosion onshore and deposition of thick sediments offshore, causing flow of ductile crust from offshore towards continental interior after end of active extension, partly reversing flow during continental breakup)

Collins, D.S., A. Avdis, P.A. Allison, H.D. Johnson, J. Hill, M.D. Piggott, M.H.A. Hassan & A.R. Damit (2017)- Tidal dynamics and mangrove carbon sequestration during the Oligo-Miocene in the South China Sea. Nature Communications 8, 15698, p. 1-12.
(online at: https://www.nature.com/articles/ncomms15698.pdf)
(Evaluation of processes controlling productivity and preservation of mangrove-bearing successions in Oligo-Miocene of basins of S China Sea (Vietnam, Gulf of Thailand, N Borneo). High tidal ranges optimize mangrove development along tide-influenced tropical coastlines. Preservation of mangrove organic carbon promoted by high tectonic subsidence and fluvial sediment supply)

Ding, W.W. & J.B. Li (2016)- Conjugate margin pattern of the Southwest Sub-basin, South China Sea: insights from deformation structures in the continent-ocean transition zone. Geological Journal 51, S1, p. 524-534.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/gj.2733/pdf)

Ding, W.W., Z. Sun, K. Dadd, Y. Fang & J.B. Li (2018)- Structures within the oceanic crust of the central South China Sea basin and their implications for oceanic accretionary processes. Earth Planetary Sci. Letters 488, p. 115-125.
(online at: https://www.sciencedirect.com/science/article/pii/S0012821X18300736)
(On bright reflectors within Oligocene- M Miocene oceanic crust of S China Sea. Dipping reflectors generally confined to lower crust above Moho reflection)

Fang, P., W. Ding, Y. Fang & Z. Zhao (2017)- Cenozoic tectonic subsidence in the southern continental margin, South China Sea. Frontiers of Earth Science 11, 2, p. 427-441.
(Tectonic subsidence history from seismic profiles across Dangerous Grounds and Reed Bank area in S China Sea. Delay of tectonic subsidence after break-up, likely related to major mantle convection during seafloor spreading. Stage with delayed subsidence rate in Reed Bank area 32-23.8 Ma, in the Dangerous Grounds 19-15.5 Ma, tied to rift propagation)

Flower, M.F.J., M. Zhang, C.Y. Chen, Kan Tu & G. Xie (1992)- Magmatism in the South China Basin: 2. Post-spreading Quaternary basalts from Hainan Island, south China. Chemical Geol. 97, p. 65-87.
(Cenozoic magmatism on N Hainan Island post-dates opening of S China Sea Basin. Tholeiite lava flows from WSW-ENE-trending fissures and interlayered with M Miocene-Quaternary sediments, forming 200-1000m sequence. With time basalts change from thin intercalated quartz tholeiite and alkali olivine basalt flows to more massive olivine tholeiites. Hainan basalts resemble Dupal-type oceanic island basalt)

Franke, D. (2013)- Rifting, lithosphere breakup and volcanism: comparison of magma-poor and volcanic rifted margins. Marine Petroleum Geol. 43, p. 63-87.
(Volcanic rifted margins evolve by extension accompanied by extensive extrusive magmatism during breakup, (up to 15km volcanic flows, seaward dipping reflectors). Magma-poor rifted margins with wide domains of extended crust (rotated faults blocks with detachment surfaces near base of continental crust), but limited magmatism. South China Sea intermediate between above end-members, with basin-and-range type rifting followed by formation of oceanic crust)

Hu, Y., L. Chen, D. Feng, Q. Liang, Z. Xia & D. Chen (2017)- Geochemical record of methane seepage in authigenic carbonates and surrounding host sediments: a case study from the South China Sea. J. Asian Earth Sci. 138, p. 51-61.

Huang, C.Y., M. Zhao, C.C. Wang & G. Wei (2001)- Cooling of the South China Sea by the Toba eruption and correlation with other climate proxies 71,000 years ago. Geophysical Research Letters 28, 20, p. 3915-3918.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2000GL006113/pdf)
(Toba tephra layer identified in core MD972151 in southern S China Sea (SCS). Tied to 1° cooling for ~1 kyr following Toba eruption (71 ka) during marine isotope stage 5a-4 transition)

Hui, G.G., S. Li, X. Li, L.L. Guo, Y.H. Suo, I.D. Somerville, S. Zhao, M. Hu, H. Lan & J. Zhang (2016)- Temporal and spatial distribution of Cenozoic igneous rocks in the South China Sea and its adjacent regions: implications for tectono-magmatic evolution. In: Evolution of West Pacific Ocean, South China Sea and Indian Ocean, Geological J. 51, Suppl. S1, p. 429-447.
(S China Sea marginal basins with >70 Cenozoic magmatic activities identified. Geodynamic evolution: (1) early bimodal volcanism (>32 Ma) mainly in Paleogene basins at N margin, under dextral transtensional regime from India- Eurasia collision; (2) syn-spreading igneous rocks, with magmatic emplacement resulting from NNE-trending dextral strike-slip pull-apart tectonics; (3) Quaternary E-W-trending post-spreading basalts, under extrusion regime from collision between Luzon–Taiwan Arc and Eurasian Plate. In Indochina and Malay Peninsula, widespread Cenozoic extensional post-spreading plutons possibly derived from mantle plume or controlled by Ailaoshan Red River left-lateral strike-slip fault zone)

Kawagata, S., B.W. Hayward & W. Kuhnt (2007)- Extinction of deep-sea foraminifera as a result of Pliocene-Pleistocene deep-sea circulation changes in the South China Sea (ODP Sites 1143 and 1146). Quaternary Science Rev. 26, p. 808-827.
(Late Pliocene- M Pleistocene extinction of many elongate, cylindrical benthic foraminifera in deep South China Sea ODP Sites 1143 and 1146, as part of 'last global extinction' in deep sea. Pulsed decline in abundance and richness, mostly during glacials, particularly during M-Pleistocene Climate Transition (1.2-0.6 Ma). Result of the increased glacial cooling and increased ventilation of deep-sea water masses)

Koloskov, A.V., P.I. Fedorov & V.A. Rashidov (2016)- New data on the composition of products of Quaternary volcanism at the northwestern margin of the South China Sea shelf zone and the problem of asthenospheric diapirism. Russian J. Pacific Geology 10, 2, p. 79-104.
(Young volcanics from S China Sea shelf zone (Thu, Cu-Lao Re, Hong Jo islands, Katuik- Ile des Cendres) related to same type of rift volcanism in onshore Vietnam, basaltoids of S China Sea, Thailand and N Hainan island, despite different structural zones. Leading role of mantle diapirism in evolution of Indochina volcanism)

Kullman, A.J., W. Dharmasamdhi, M. Jones, Nguyen Tran Nhu Ngoc, Nguyen Tien Long, Le Tuan Viet et al. (2017)- Low-cost exploration in a frontier area: breaking our model with data, Phu Khanh Basin, East Sea, Vietnam. In: SEAPEX Exploration Conference 2017, Singapore, Session 9, 10p. *(Extended Abstract)*
(Offshore E Vietnam Phu Khanh Basin last remaining true frontier basin in SE Asia. Seafloor coring identified Miocene-Pliocene stratigraphy and thermogenic hydrocarbons)

Lee, M.Y., K.Y. Wei & Y.G. Chen (1999)- High resolution oxygen isotope stratigraphy for the last 150,000 years in the southern South China Sea: Core MD972151. J. Terrestr. Atmosph. Oceanic Sci. (TAO) 10, 1, p. 239-245.

(online at: http://ntur.lib.ntu.edu.tw/bitstream/246246/172571/1/07.pdf)
(d18O oxygen stratigraphy across last two glacial-interglacial cycles in southern S China Sea off SE Vietnam. Tephra layer of Toba eruption at 71ka helps anchor transition of O-isotope stages 5/4)

Lei, J.P., S.H. Jiang; S.Z. Li, S. Gao, H.X. Zhang, G. Wang & F.Y. Zhao (2016)- Gravity anomaly in the southern South China Sea: a connection of Moho depth to the nature of the sedimentary basins' crust. In: Evolution of West Pacific Ocean, South China Sea and Indian Ocean, Geological J. 51, Suppl. S1, p. 244-262.
(On relationship between gravity-derived Moho depth and main sedimentary basins in southern S China Sea: crustal thickness of basins indicates transition from continental crust to transitional crust from N to S)

Li, B., J. Wang, B. Huang, Q. Li, Z. Jian, Q. Zhao, X. Su & P. Wang (2004)- South China Sea surface water evolution over the last 12 Ma: a south-north comparison from ODP sites 1143 and 1146. Paleoceanography 19, PA1009, p. 1-12.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2003PA000906/epdf)
(Decrease in deep-dwelling planktonic foram species after ~10 Ma interpreted to reflect depression of upper water thermocline, corresponding to closure of Indonesian Seaway, and initial formation of W Pacific 'warm pool'. Associated with disappearance of Globoquadrina dehiscens at 9.8 Ma. Microtektite layer of 0.79 Ma at ODP Sites 1143 (42.8m) and 1146 (115.85m), approximates Brunhes-Matuyama paleomagnetic boundary and above small Gephyrocapsa acme of 1.01 Ma)

Li, C.F., J. Li, W. Ding, D. Franke, Y. Yao, H. Shi, X. Pang, Y. Cao, J. Lin, D.K. Kulhanek, T. Williams, R. Bao, A. Briais et al. (2015)- Seismic stratigraphy of the central South China Sea basin and implications for neotectonics. J. Geophysical Research, Solid Earth, 120, 3, p. 1377-1399.
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(online at: http://publications.iodp.org/proceedings/349/EXP_REPT/CHAPTERS/349_101.PDF)
(Summary of results of IODP 349 deep see drilling campaign in S China Sea. Five sites drilled, three recovered oceanic crust basalt basement near fossil spreading center. E Miocene (16-20 Ma) cessation age of spreading in both subbasins. At Site U1435 along continent/ocean boundary, ~33 Ma unconformity, with marine sediment above and littoral sandstones-mudstones below, likely related to continental breakup during initial opening of SCS. Onset of seafloor spreading therefore estimated to be at ~33 Ma. M-L Miocene (~8–13 Ma) volcaniclastic breccia suggesting 5 Myrs of seamount volcanism after cessation of seafloor spreading)

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(Magnetic anomalies and IODP 349 cores show seafloor spreading started at ~33 Ma in NE S China Sea, but varied slightly by 1-2 Myr along N continent-ocean boundary. S-ward ridge jump of 20 km occurred at ~23.6 Ma in E Subbasin; coeval with onset of seafloor spreading in SW Subbasin, which propagated for ~400 km SW-ward from 23.6-21.5 Ma. End of seafloor spreading 15 Ma in E Subbasin and 16 Ma in SW Subbasin)

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(Clay minerals from IODP Site U1433 and seismic suggest onset of Mekong Delta in present location after 8 Ma, following avulsion from Gulf of Thailand)

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(Review of modern fluvial sediment influx from all sides of S. China Sea and subsequent transport processes to continental shelf and abyssal basin, and effect of Late Quaternary glacial cycles. High diversity of clay mineralogical-geochemical compositions. Land-sea configuration dramatically changed during glacial conditions. In S clay minerals indicate intensive chemical weathering during interglacial periods and increased physical erosion during glacial periods. S-ward shift of Inter-tropical Convergence Zone at 16 ka caused increased sediment contribution from S China. Etc.)

Ma, Z.L., Q.Y. Li, X.Y. Liu, W. Luo, D.J. Zhang & Y.H. Zhu (2017)- Palaeoenvironmental significance of Miocene larger benthic foraminifera from the Xisha Islands, South China Sea. Palaeoworld 27, 1, p. 145-157.
(online at: https://www.sciencedirect.com/science/article/pii/S1871174X1730029X)
(Well XK-1 in Xisha (= Paracel) Islands, NW part of S China Sea, penetrated Miocene reef carbonate section with 66 species of larger foraminifera. Three assemblages: (1) 1256-1180m Spiroclypeus higginsi- Borelis pygmaeus (Te5, E Miocene); (2) 1031-577m Nephrolepidina- Miogypsina Assemblage (Tf, M Miocene), and 468-380m Cycloclypeus- Heterostegina Assemblage (Tg, Late Miocene). Facies backreef lagoon-shelf in E Miocene, normal-frontal reef in early M Miocene, backreef lagoon-shelf in later M Miocene, normal- frontal reef in early Late Miocene, and proximal forereef shelf in later Late Miocene)

Mai, H.A., Y.L. Chan, M.W. Yeh & T.Y. Lee (2017)- Tectonic implications of Mesozoic magmatism to initiation of Cenozoic basin development within the passive South China Sea margin. Int. J. Earth Sciences 107, 3, p. 1153-1174.
(S China Sea classic example of non-volcanic passive margin, situated within three tectonic plates. Reconstruction indicated SE margin of Asia had gone through two crustal thinning events (NW–SE extension in Late Cretaceous and Paleogene). Sites for rifting development controlled by localized thermal weakening of magmatism. Interaction of two continental stretching events by Pacific followed by Neotethys subduction with local magmatic thermal weakening is cause for non-volcanic nature of SCS)

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(M Miocene clastics and carbonates in wells of Thien Ung - Mang Cau structure inC area of Nam Con Son Basin, S China Sea)

Nguyen Ngoc Khoi (2014)- Mineral resources potential of Vietnam and current state of mining activity. Applied Environmental Research 36, 1, p. 37-46.
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Nguyen Nhu Trung (2012)- The gas hydrate potential in the South China Sea. J. Petroleum Science Engineering 88-89, p. 41-47.
(Thickness of Gas hydrate stability zone (GHSZ) in S China Sea estimated to be ~225-365m)

Nguyen N.S., Nguyen Q.T., Nguyen H.N., Nguyen V.T., Phan G.L., Nguyen T.L., Le T.V., Nguyen X. P. & Tran N.L. (2017)- Ham Rong Dong & Ky Lan discoveries- a new significance and opening up vast opportunities in the northern offshore part of Song Hong basin. In: SE Asia Petroleum Expl. Soc. (SEAPEX) Exploration Conf. 2017, Singapore, Session 10, 12p.
(Previous discoveries in Song Hong Basin off N Vietnam, marginal-subcommercial, and mainly in Miocene inversion clastics or fractured/karstified Pretertiary carbonate basement plays. Recent discoveries: (1) Ham Rong Dong gas-condensate in Oligocene clastics overlying basement high; (2) Ky Lan gas in E-M Miocene sands in 4-way-dip closure. Recent E well on V Island with ~500m Oligocene lacustrine source rock with TOC up to 9% and mainly Type I and II kerogen)

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(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/312/210)
(Nam Con Son Basin off Vietnam two extensional phases: (1) N-S extension, terminated at ~30 Ma, forming E-W trending grabens/half grabens with up to 5km of Eocene?- E Oligocene sediments; (2) graben reactivation during M Miocene NW-SE extension. Most faults inactive by U Miocene except N-S fault system active until recent. U Miocene -Recent post rift sequence associated with onshore uplift, causing increase in sediment supply to basin)

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(online at: https://www.ripublication.com/ijaer17/ijaerv12n22_148.pdf)
(Numerous paleokarst features seen on offshore 3D seismic in M Miocene carbonate platform on Tri Ton high, S Song Hong Basin, Vietnam. Paleokarst networks beneath unconformity shows erosional topography, sinkholes, rivers/canyons and hills, revealing mature surface drainage system)

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(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2015GC006113)
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Shao, L., L. Cao, P. Qiao, X. Zhang, Q. Li & D.J.J.van Hinsbergen (2017)- Cretaceous-Eocene provenance connections between the Palawan continental terrane and the northern South China Sea margin. Earth Planetary Sci. Letters 477, p. 97-107.
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Shao, L., A. Meng, Q. Li, P. Qiao, Y. Cui, L. Cao & S. Chen (2017)- Detrital zircon ages and elemental characteristics of the Eocene sequence in IODP Hole U1435A: implications for rifting and environmental changes before the opening of the South China Sea. Marine Geology 394, p. 39-51.
(Littoral M-L Eocene sandstone sequence in IODP Hole U1435A mainly composed of subangular quartz (70-80%) and K feldspar (10-15%), indicating proximal provenance of felsic rocks. Detrital zircon ages mainly

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(1.4 Ma paleoceanography history of offshore north-central Spratly islands, southern S China Sea)

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(Most igneous emplacements in S China Sea margins after end of seafloor spreading, rare during rifting and spreading phases, supporting magma-poor margins before breakup of continental lithosphere. Post-spreading magmatic activities widespread in continental slope areas and central SCS, likely triggered by extension in relation to cooling and subsidence of oceanic and attenuated continental lithosphere. Possible total thermal contractional displacement up to 24 km)

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(online at: http://english.gyig.cas.cn/pu/papers_CJG/201608/P020160809552862768935.pdf)
(Multiple models proposed for origin of S China Sea. Preferred model involves two-stage backarc extension, induced by N-ward subduction of Neotethys Plate, with normal subduction followed by ridge subduction/ flat subduction. First backarc extension responsible for formation of proto-SCS, second extension responsible for the Shenhu event and ultimately formation of SCS)

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(online at: www.scichina.com:8080/kxtbe/fileup/PDF/03ky2155.pdf)
(Study of pollen distributions in deep sea sediments of S China Sea and E China Sea (mainly Quaternary). Spectral analyses show Milankovich cyclicities in vegetation of surrounding land areas. Changes of herbs and pine pollen percentages in phase with d18O record. Not much detail)

Sun, X., Y. Luo, F. Huang, J. Tian & P. Wang (2003)- Deep-sea pollen from the South China Sea: Pleistocene indicators of East Asian monsoon. Marine Geology 201, p. 97-118.
(High-resolution pollen record from northern S China Sea ODP Site 1144, covers last 1.03 My. High, varying proportions of Pinus and herb pollen, forming base of 29 pollen zones that are closely correlated to Oxygen Isotope Stages (MIS) 1-29. Pinus dominant pollen zones correspond to interglacial periods, herb peaks relate to heavier N18O stages assigned to glacials. Exposed N continental shelf covered by grassland during glacials.

Relatively high fern percentage with smaller amplitude in variations before 600 ka may suggest more stable humid conditions before intensification of winter monsoon. Microtektites at 386.4m, part of Australasian strewnfield, close to Brunhes/Matuyama boundary (780 ka). Milankovich cyclicity)

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(Abrupt transition from fluvial mud to shallow marine carbnate sand deposition in incised-valley-fill from SE Vietnam shelf records Holocene postglacial transgression after 14 ka. Rapid aggradation of fluvial sediments at river mouth nearly completely filled Mekong incised valley prior to flooding between 13.0- 9.5 ka)

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(Sediment cores from S China Sea (SCS) with proxy records of past changes in East Asian monsoon climate on millennial to bidecadal time scales over last 220,000 years. Two different regimes of monsoon circulation in SCS over last two glacial cycles: (1) glacial stages with stable estuarine circulation and strong O2-minimum layer via closure of Borneo sea strait; cool surface water during winter; large river input from emerged Sunda shelf; (2) Interglacials with strong inflow of warm water via Borneo sea strait, intense upwelling SE of Vietnam and continental wetness in China during summer; low seasonality)

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(Widespread and thick Cenozoic carbonate sequences along margins of S China Sea. Platforms developed during rifting and initiated on fault blocks of conjugate rift margins. Most carbonate platforms drowned afterM Miocene. Malampaya Carbonate >600m thick, developed on Oligocene rifted horst block. Subsidence, tectonic tilting, faulting, and foreland bulge controlled drowned carbonate platforms. The tectonic evolution and relative sea-level fluctuations controlled depositional cycles of carbonate platforms. Carbonate platforms flourished in M Miocene due to stable tectonic conditions and shrank during Late Miocene due to rapid subsidence. Relative sea level exerted 2nd-order control on evolutionary trend of carbonate platforms and third-order control on evolutionary periods in each stage)

Xu, H., Y. Zhu, G. Eberli, W. Luo, X. Zhao, Y. Cai, L. Ying, X. Liu et al. (2015)- Characteristics of porosity and permeability layer of fossil *Halimeda* reef mineral rock of Miocene in the Xisha Islands and its genetic model. Acta Oceanologica Sinica 34, 4, p. 74-83.
(Halimeda one of the major reef-building algae in M Miocene of Xisha, making good oil- gas reservoirs)

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(Daimao Seamount (16.6 Ma) formed 10 My after cessation of 17°N spreading center. Basaltic breccia clasts in volcaniclastics suggest Daimao and other SCS seamounts typical ocean island basalt composition and 'Dupal' isotopic signature. Daimao Seamount formed through submarine explosive basaltic volcanism at 16.6 Ma. Seamount subsided rapidly, with deposition of shallow-water, coral-bearing carbonates around summit)

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(K-Ar ages of basalts from S China Sea basin 3.8- 7.9 Ma, suggesting intra-plate volcanism after cessation of spreading of S China Sea, comparable regions around SCS. Belong to alkali basalt series, similar to OIB-type basalt. Also geochemical constraints on Hainan mantle plume)

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(Geochemical study of Kon Tum plateau, Sanshui basin and Daimao seamount volcanic rocks. Basaltic lavas indicate not a deep-rooted plume origin, but shallower mantle domain)

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(Offshore Tertiary basins along broad shelf from Taiwan to Hainan Island with similar characteristics. Paleogene basins mainly NE-SW trending half-grabens and fault blocks)

Yu, X.Z., C. Xue, H. Shi, W. Zhu, Y. Liu & H. Yin (2017)- Expansion of the South China Sea basin: constraints from magnetic anomaly stripes, sea floor topography, satellite gravity and submarine geothermics. Geoscience Frontiers 8, 1, p. 151-162.
(online at: https://www.sciencedirect.com/science/article/pii/S1674987116000050)
(Model for Oligo-Miocene spreading in S China Sea basin. NW-SE expansion of SW subbasin later than N-S expansion of central basin; both expansions end at same time. Expansion of SW sub-basin similar to Japan Sea, likely caused by left-lateral strike slip on central fault zone in S China Sea)

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evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 1, p. 327-336.
(SE margin of Nansha Trough foreland basin in S China Sea (= Palawan Trough) with common SE-to-NW directed thrust-nappe structuring along NW Borneo- Sabah margin. Two important detachment planes (re-interpretation of Hinz et al. 1985 seismic sections. Most nappe structures formed in E Pliocene)

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(online at: www.sciencedirect.com/science/article/pii/S2096249517300297)
(Two tectonic cycles of marginal sea basins in S China Sea: Palaeo-SCS and Neo-SCS. N part of SCS is rifted continental margin; Nansha Block is drifting rift basin. S part compound compressional basin on active margin; W part is shear-extensional basin on transform continental margin; E part is accretionary wedge at subduction continental margin. Deep-water basins mainly on continental slope and Nansha Block. Three sets of source rocks in N continental margin: Eocene terrestrial facies, E Oligocene transitional and late Oligocene marine facies. Main hydrocarbon reservoir types related to structural traps, deep water fans and reefs)

Zhang, L. (2008)- The finding of microtektites from ODP Site 1144 and its significance. Natural Sciences and Museums, Beijing, 4, p. 137-141. *(in Chinese)*
(ODP Site 1144 in northern S China Sea with >969 microtektites and 1543 fragments in 10 cm interval (386.17- 386.27 mcd). All microtektites entirely glassy, mostly spherical and oval in shape and with many bubbles. Composition within the range of Australasian tektites. Source crater probably further to NE and more closer to South China than previously predicted. Size of the crater estimated 50-140 km)

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(ODP Site 1144 in northern C China Sea with many microtektites at depths 386.17-386.27 mcd. Shapes mostly spherical and oval, but also teardrops, saddles, buns, dumbbells, disk shapes and fragments. Major elements geochem suggest Australasian microtektites. Parent material may include clastic sediments)

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(South China Sea 3 tectonic stages: (1) development of Proto-SCS, (2) subduction of Proto-SCS and (3) development of Neo-SCS (rapid subsidence followed by shrinking). Southern and Northern Tertiary basins belts in southern continental margin (N Borneo). Main source rocks in S basin belt Miocene coal, nearshore marine (oil) and offshore (gas). In N basin belt, source rocks Eocene -Oligocene, gas-prone, highly mature, with reefs and faulted blocks as main traps)

Zhang, X., Z. Du, Z. Luan, X. Wang, S. Xi, B. Wang, L. Li, C. Lian & Jun Ya (2017)- In situ Raman detection of gas hydrates exposed on the seafloor of the South China Sea. Geochem. Geophys. Geosystems 18, 10, p. 3700-3713.
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(Eustatic sea level curve since Pliocene (5.3 Ma) derived from high-res seismic data from N Sunda Shelf/ South China Sea (SCS). 36 fourth order sea level cycles recognized with periods ranging from 0.08- 0.29 My)

Zhong, L.F., G.Q. Cai, A.A.P. Koppers, Y.G. Xu & B. Xia (2018)- 40Ar/39Ar dating of oceanic plagiogranite: constraints on the initiation of seafloor spreading in the South China Sea. Lithos 302-303, p. 421-426.
(Oceanic plagiogranite dredged from Penglai Seamount on 17°N fossil spreading center of East Sub-basin of SCS near Manila Trench. 40Ar/39Ar ages of 32.3 ± 0.5 Ma and 28.9 ± 1.9 Ma. Trace elements and isotopic composition similar to mid-oceanic ridge basalts. New geochronology demonstrates that initial opening of South China Sea occurred before 32 Ma (E Oligocene))

IX.8. The Philippines (General, Palawan, Luzon) (84)

Abrajano, T.A., J.D. Pasteris & G.C. Bacuta (1989)- Zambales ophiolite, Philippines I. Geology and petrology of the critical zone of the Acoje massif. Tectonophysics 168, p. 65-100
(Acoje massif (northernmost massif of Zambales Ophiolite Complex) relatively intact fragments of Mesozoic oceanic lithosphere)

Abrajano, T.A., N.C. Sturchio, J.K. Bohlke, G.L. Lyon, R.J. Poreda & C.M. Stevens (1988)- Methane-hydrogen seeps, Zambales Ophiolite, Philippines: deep or shallow origin? Chemical Geology 71, p. 211-222.
(Isotopically anomalous CH4-rich gas escapes at low rate from seeps in serpentinized ultramafic rock in Zambales Ophiolite, W Luzon. Gas mainly methane/CH4 and H2 (55 and 42%). d13C-value of CH4 is -7.0 ‰, ~8 ‰ higher than highest published values for CH4 in other natural gases, but similar to values attributed to mantle carbon. Carbon and He isotopic data consistent with derivation directly from reduced mantle, but could also have been produced during low-T serpentinization of ophiolite)

Abrajano, T.A., N.C. Sturchio, B.M.Kennedy, G.L. Lyon, K. Muehlenbachs & J.K. Bohlke (1990)- Geochemistry of reduced gas related to serpentinization of the Zambales Ophiolite. Applied Geochem. 5, 5-6, p. 625-630.
(Methane-hydrogen gas seeps with mantle-like C and noble gas isotopes seep from partially serpentinized ultramafic rocks in Zambales ophiolite, Philippines. Gases products of periodotite hydration)

Arai, S. & M. Kida (2000)- Origin of fine-grained peridotite xenoliths from Iraya volcano of Batan Island, Philippines: deserpentinization or metasomatism at the wedge mantle beneath an incipient arc? Island Arc 9, 4, p. 458-471.
(Peridotite xenoliths from subarc mantle at Iraya volcano of Batan, Luzon arc mainly hartzburgites. F-type peridotite characteristic of upper mantle of island arc, especially incipient arc)

Arai, S., S. Takada, K. Michibayashi & M. Kida (2004)- Petrology of peridotite xenoliths from Iraya Volcano, Philippines, and its implication for dynamic mantle-wedge processes. J. Petrology 45, 2, p. 369-389.
(online at: https://academic.oup.com/petrology/article/45/2/369/1522080/Petrology-of-Peridotite-Xenoliths-from-Iraya)
(Two types of peridotite xenoliths in calc-alkaline andesites from Iraya volcano, NE Batan: C-type (coarse) and F-type (fine; with transitional types). C-type harzburgites similar to arc-type harzburgite and may be from sub-arc lithospheric mantle, strained and deformed during oblique subduction of S China Sea Plate)

Balmater, H., D. Eslava, K. Queano, C. Dimalanta, N. Ramos, B. Payot & G. Yumul (2015)- Samar ophiolitic complex, central Philippines: fragment of a Mesozoic basin at the junction of eastern Neo-Tethys and Panthalassa. In: Proc. 4th Int. Symposium Int. Geosciences Program (IGCP) Project 589, Bangkok 2015, p. 4. *(Abstract only)*
(online at: http://igcp589.cags.ac.cn/4th%20Symposium/Abstract%20volume.pdf)
(Samar Ophiolitic Complex, exposed in eastern C Philippines, and part of Jurassic- Cretaceous ophiolitic belt that serves as basement to most E Philippines islands. Paleomagnetic studies on upper crust of ophiolite suggests paleolatitude of -14º± 6º. This, and results from E Indonesia evidence that ophiolites preserved along W and S margins of Philippine Sea Plate are remnants of Mesozoic oceanic basin E of eastern Neo-Tethys and W of Panthalassa. Cretaceous and Cenozoic intra-oceanic arcs associated with this basin part of the Amami-Daito region, E Philippines, E Indonesia and N New Guinea, and were separated by Eocene opening of PSP)

Barretto, J.A.L., C.B. Dimalanta & G.P. Yumul (2000)- Gravity variations along the Southeast Bohol Ophiolite Complex (SEBOC), Central Philippines: implications on ophiolite emplacement. Island Arc 9, 4, p. 575-583.
(Basement complex of Bohol Island consists of SE Bohol Ophiolite Complex, Cansiwang Melange and Alicia Schist. SEBOC is complete, but dismembered ophiolite with outcrops generally trending NE-SW and dipping NW. SEBOC thrusted onto Cansiwang Melange, which is thrusted onto Alicia Schist. Orientation of Bouguer highs suggests thrusting direction of ophiolite units was to SW, not to SE)

Beyer, H.O. (1940)- Philippine tektites and the tektite problem in general. Contr. Society Research on Meteorites 2, 6, p. 157-163.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1945-5100.1940.tb00306.x/pdf)
(Philippines hosts world's largest known deposits of tektites. Part of Indo-Malaysianite great shower in mid-Pleistocene time. Largest known tektites in SE Luzon (Bikol Peninsula) up to 1070g and >4 inches in diameter, but average weight for region only 15-20 g)

Bomasang, R., F.K. Bandelon & D. M. Casupang (1987)- Der Kohlebergbau auf den Philippinen. Glueckauf 123, 14, p. 881-886.
('Coal mining in The Philippines')

Braxton, D.P. (2007)- Boyongan and Bayugo porphyry copper-gold deposits, NE Mindanao, Philippines: geology, geochemistry, and tectonic evolution.Ph.D. Thesis University of Tasmania, p. 1-277.
(online at: https://eprints.utas.edu.au/18070/1/Whole-Braxton-thesis.pdf)
(Recently discovered Boyongan and Bayugo porphyry copper-gold deposits part of emerging belt of M Pliocene intrusion-centered gold-rich deposits. Formed in association with composite diorite complex; U-Pb zircon ages from ~2.3- 2.1 Ma)

Braxton, D.P., D.R. Cooke, A.M. Ignacio, R.O. Rye & J. Waters (2009)- Ultra-deep oxidation and exotic copper formation at the Late Pliocene Boyongan and Bayugo porphyry copper-gold deposits, Surigao, Philippines: geology, mineralogy, paleoaltimetry, and their implications for geologic, physiographic, and tectonic controls. Economic Geology 104, 3, p. 333-349.
(Late Pliocene-age Boyongan and Bayugo porphyry copper-gold deposits intrusion-centered gold-rich deposits in NE Mindanao. Exhumation and weathering led to porphyry oxidation profile of 600m at Boyongan and 30-70m at adjacent Bayugo. Etc.)

Braxton, D.P., D.R. Cooke, A.M. Ignacio & J. Waters (2018)- Geology of the Boyongan and Bayugo porphyry Cu-Au deposits: an emerging porphyry district in Northeast Mindanao, Philippines. Economic Geology 113, 1, p. 83-131.
(Boyongan and Bayugo porphyry Cu-Au mineral deposits part of emerging belt of Au-rich Cu mineral deposits in NE Mindanao. Formation. Mineral deposits formed in E Pleistocene, in association with diorite complex containing at least 12 discrete intrusive stages. Repeated cycles transpired rapidly, between 2.3-2.1 Ma)

Cao, M.J., P. Hollings, D.R. Cooke, N.J. Evans, B.I.A. McInnes, K.Z. Qin, G.M. Li, G. Sweet & M. Baker (2018)- Physicochemical processes in the magma chamber under the Black Mountain porphyry Cu-Au deposit, Philippines: insights from mineral chemistry and implications for mineralization. Economic Geology 113, 1, p. 63-82.
(Black Mountain porphyry Cu-Au deposit in Baguio district, N Luzon, associated with Late Miocene- Pliocene intrusive rocks. Amphibole in felsic rocks aged ~6.4- 2.8 Ma suggest long-lived and hot felsic magma chamber. Large-scale mafic magma recharge (particularly at ~2.8 Ma), likely introduced ore-forming metals to felsic magma chamber, contributing to Cu-Au mineralization)

Claveria, R.J. & H.H. Fischer (1991)- Characterization of the chromite pods and lenses associated with the Ulugan Bay peridotite, Palawan. J. Geol. Soc. Philippines 46, 3-4, p. 21-34.
(Chromitite pods and lenses in Ulugan Bay area occur as concordant and discordant bodies with respect to metamorphic banding in peridotite)

Cooke, D.R.. & D.C. McPhail (2001)- Epithermal Au-Ag-Te mineralization, Acupan, Baguio district, Philippines: numerical simulations of mineral deposition. Economic Geology 96, p. 109-131.

Cooke, D.R., D.C. McPhail & M.S. Bloom (1996)- Epithermal gold mineralization, Acupan, Bagio district, Philippines: geology, mineralization, alteration and the thermochemical environment of ore deposition. Economic Geology 91, p. 243-272.

Dancer, N. (2003)- Reservoir characterisation of the Malampaya Field, a carbonate reefal build-up in the Philippines. Proc. 2003 SE Asia Petrol. Expl. Soc.(SEAPEX) Exploration Conf., Singapore, p. 1-36. *(Abstract+ Presentation)*
(Malampaya Field Oligo-Miocene carbonate reservoir with high porosity and large variation in permeability at depth of ~3000m TVDSS. Gas column 650m, oil rim 56m (API 29.4°). In-place reserves ~4.1 TCF gas and 300 MMBO. Porosity affected by diagenesis: (1) early cementation of flanks decreased porosity, meteoric leaching of lagoon increased porosity; (2) late stage burial decreased porosity with cementation along faults, porosity increased by late leaching by mixing of burial fluids and pore waters)

Deng, J.H., X.Y. Yang, H. Qi, Z.F. Zhang, A.S. Mastoi & W. Sun (2017)- Early Cretaceous high-Mg adakites associated with Cu-Au mineralization in the Cebu Island, Central Philippines: implication for partial melting of the Paleo-Pacific Plate. Ore Geology Reviews 88, p. 251-269.
(E Cretaceous arc volcanics and diorites associated with large porphyry deposit in Cebu Island, C Philippines. Zircon U-Pb age of diorites ~110 Ma, close to formation age of Lutopan diorites in Atlas porphyry Cu-Au deposit. Successive generation of arc volcanics and adakites in Cebu Island responses to subduction and rollback of Paleo-Pacific Plate to proto-Philippine Sea Plate in E Cretaceous)

Dimalanta, C.B., D.V. Faustino-Eslava, J.T. Padrones, K.L. Queano, R.A.B. Concepcion & S. Suzuki (2018)- Cathaysian slivers in the Philippine island arc: geochronologic and geochemical evidence from sedimentary formations of the west Central Philippines. Australian J. Earth Sciences 65, 1, p. 93-108.
(Clastic units from W Central Philippines (Mindoro, Panay and Palawan) likely from sources of Cathaysian origin. U-Pb dating peaks at 185-140 Ma, 140-120 Ma and 112-90 Ma, chronicling Yanshanian magmatic events. Same formations also older intercept at 1.9-1.85 Ga,likely corresponding to orogenic episode in late Paleoproterozoic Cathaysian block. Also rel. strong continental chemical signature)

Dimalanta, C. & G. Yumul (2015)- Understanding arc-continent collision and crustal growth: geochemistry of Philippine sedimentary rock sequences. ASEAN Engineering J., C, 2, 2, p. 40-53.
(online at: http://seed-net.org/wp-content/uploads/2015/12/Invited-Paper_UNDERSTANDING-ARC-CONTINENT-COLLISION-AND-CRUSTAL-GROWTH-GEOCHEMISTRY-OF-PHILIPPINE.pdf)
(Geochemistry of clastic rocks from Palawan, Buruanga and NW Mindoro confirms source from continental fragment. Sediments from Baguio (Klondyke, Amlang, Cataguintingan) geochemical signatures consistent with derivation from mafic igneous rocks in oceanic island arc setting)

Doo, W.B., S.K. Hsu & L. Armada (2015)- Philippine Island arc system tectonic features inferred from magnetic data analysis. Terrestrial Atmospheric Oceanic Sci. 26, 6, p. 679-686.
(online at: http://www.gep.ncu.edu.tw/upload/thesis/2015/thesis_1474424270.pdf)
(Positive magnetization distribution coincides closely with magmatic arcs. Philippine Fault main tectonic boundary, separating high/ low magnetization areas. Etc.)

Durkee, E.F. (1993)- Oil, geology, and changing concepts in the SW Philippines (Palawan and the Sulu Sea). In: Proc. Conf. Tectonic framework and energy resources of the westem margin of the Pacific Basin, Kuala Lumpur 1992, Geol. Soc. Malaysia Bull. 33, p. 241-262.
(online at: www.gsm.org.my/products/702001-101009-PDF.pdf)
(same as Durkee 1992, above)

Durkee, E.F. (2001)- With Malampaya producing, here are other Philippines exploration targets. Oil and Gas J. 99, 47, p. 46-50.
(Shell-operated Malampaya producing gas since September 2001. Two important areas for gas exploration Reed Bank and S Tanon Strait. Other possible areas Crescent, Santa Monica, N Coron, Amity, Cherry and Hippo. Possibility of oil leg under gas accumulation at Malampaya)

Fan, J., S.G. Wu & G. Spence (2015)- Tomographic evidence for a slab tear induced by fossil ridge subduction at Manila Trench, South China Sea. Int. Geology Review 57, 5-8, p. 998-1013.

(Tomography of high-velocity subducted slab of S China Sea beneath Manila Trench. Angle of slab varies along trench: at ~16° N slab dips at 24° ~ 32° for 20-250 km depth. A ~17.5° slabs near vertical from 70-700 km depth, at 20° N from horizontal abruptly to near vertical to 500 km depth. Steepening may indicate slab tear, coincident with axis of fossil ridge in SCS slab at ~17° N. Low-velocity zones above 300 km may represent the formation of slab window. Slab tear could explain volcanic gap and geochemical difference between Miocene and Quaternary volcanoes in Luzon Arc, and distribution of adakites and related porphyry Cu-Au deposits in Luzon area. Initial time of ridge subductio possibly started at ~8 Ma)

Fan, J., D. Zhao, D. Dong & G. Zhang (2017)- P-wave tomography of subduction zones around the central Philippines and its geodynamic implications. J. Asian Earth Sci. 146, p. 76-89.
(Tomographic data show subducted S China Sea slab under S segment of Manila Trench steepens and tears, resulting in migration of active volcanism in Macolod Corridor, due to between Palawan block- Philippine Mobile Belt collision. Subduction of Philippine Sea Plate along Philippine Trench started at 10-12°N or S of 12°N from at least ~10 Ma. High-velocity anomaly near mantle transition zone interpreted as subducted Proto S China Sea slab, sinking deeper SE-ward, suggesting Palawan block collision younging from S to N)

Fernando, A.G.S., C.Y. Magtoto, J.D.S. Guballa & A.M. Peleo-Alampay (2016)- Calcareous nannofossils from Cretaceous units in Catanduanes Island. Bull. Natl. Museum Natural Sci., Ser. C, 42, p. 35-47.
(online at: http://www.kahaku.go.jp/research/publication/geology/download/42/BNMNS_C42_35-47.pdf)
(Cretaceous outcrops in Catanduanes Island, E Philippines with two distinct nannofossil assemblages:UC10-UC12 zones (Coniacian-Santonian) and Campanian-Maastrichtian. Previously unmapped black mudstone in N Catanduanes UC5c subzone (Cenomanian-Turonian boundary; possibly oceanic anoxic event 2 (OAE2))

Fernando, A.G.S., A. Raymund, C. Fernandez, Y. Maac-Aguilar, Y. Kurihara & T. Kase (2008)- Late Miocene calcareous nannofossils from Danao Basin, Bohol (VisayanBasin), Philippines. Bull. Natural Science Museum, Tokyo, C34, p. 27-38.
(online at: http://ci.nii.ac.jp/naid/110007342096/en)
(Shallow marine, mollusk-bearing clastics in Danao basin of C Bohol with Discoaster quinqueramus and D. berggrenii, suggestive of NN11, Late Miocene. Cooler oceanographic conditions suggested for LateMiocene in Visayan Basin)

Fernando, A.G.S., D.N. Tangunan, A.R.C. Fernandez, E.S. Lucero, J.A. Manzano, M.G.B. Collantes & L.S.J. Manzano (2013)- Calcareous nannofossil biostratigraphy of Indahag Limestone (Western Misamis Oriental, Northern Mindanao). J. Geol. Soc. Philippines 64, p. 12-21.
(Pliocene calcareous nannofossils from Indahag Lst (NN15-NN17), N Mindanao)

Forster, M.A., R. Armstrong, B. Kohn, G.S. Lister,M.A. Cottam & S. Suggate (2015)- Highly retentive core domains in K-feldspar and their implications for 40Ar/39Ar thermochronology illustrated by determining the cooling curve for the Capoas Granite, Palawan, The Philippines. Australian J. Earth Sci. 62, p. 883-902.
(online at: http://searg.rhul.ac.uk/pubs/forster_etal_2015%20Capoas%20K-feldspar%20Palawan.pdf)
(K-feldspar from Late Miocene Capoas Granite on NW Palawan with retentive diffusion domains that are closed to argon diffusion at near-solidus temperatures during cooling. High closure T from Capoas Granite K-feldspar consistent with coincidence of 40Ar/39Ar ages with U-Pb zircon ages at ~13.5 ± 0.2 Ma. Cooling rate then accelerated, but slowed by ~12 Ma, then once again accelerated at ~11 Ma)

Fraser, A.R. & E.B. Guazon (1994)- Geology and petroleum potential of Northeast Palawan Shelf. Australian Geol. Survey Org. (AGSO), Canberra, Record 1994/41, Part 3, p. 1-47.
(online at: https://d28rz98at9flks.cloudfront.net/14753/Rec1994_041.pdf)

Guballa, J.D.S. & A.G.S. Fernando (2015)- Calcareous nannofossil biostratigraphic study of the Pugo River section of Amlang Formation in the Luzon Central Valley Basin, Philippines. Bull. Natl. Museum Nat. Sci., Tokyo, Ser. C, 41, p. 53-59
(online at: www.kahaku.go.jp/research/publication/geology/download/41/L_BNMNS_C41_53-59.pdf)

Guotana, J.M.R., B.D. Payot, C.B. Dimalanta, N.T. Ramos, D.V. Faustino-Eslava, K.L. Queano & G.P. Yumul (2016)- Petrological and geochemical characteristics of the ultramafic section of the Samar Ophiolite: Implications on the origins of the ophiolites in Samar and Leyte, Philippines. In: Development of the Asian Tethyan Realm: genesis, process and outcomes, 5th Int. Symposium Int. Geoscience Program (IGCP) Project 589, Yangon, p. 25-30. *(Extended Abstract)*
(online at: http://igcp589.cags.ac.cn/5th%20Symposium/Abstract%20Volume.pdf)
(late Early- early Late Cretaceous Samar Ophiolite part of Cretaceous belt of ophiolites and ophiolitic complexes along E Philippines. Peridotites, gabbros and massive flow and pillow lavas at S Samar Island represent mantle and crustal sections of Samar Ophiolite, with chemistry comparable to supra-subduction zone peridotites. Ophiolites also exposed in Leyte Island W of Samar (Tacloban and Malitbog Ophiolite Complexes), but strong affinity with abyssal peridotites)

Guotana, J.M.R., B.D. Payot, C.B. Dimalanta, N.T. Ramos, D.V. Faustino-Eslava, K.L. Queano & G.P. Yumul (2017)- Arc and backarc geochemical signatures of the proto-Philippine Sea Plate: insights from the petrography and geochemistry of the Samar Ophiolite volcanic section. J. Asian Earth Sci. 142, p. 77-92.
(Remnants of Cretaceous lithosphere of arc affinities at peripheries of W Philippine Basin: Amami Plateau, E Halmahera Ophiolite and SSZ ophiolites along E margin of Philippine archipelago (incl. early Late Cretaceous Samar Ophiolite)

Guotana, J.M.R., B.D. Payot, C.B. Dimalanta, N.T. Ramos, D.V. Faustino-Eslava, K.L. Queano & G.P. Yumul (2018)- Petrological and geochemical characteristics of the Samar Ophiolite ultramafic section: implications on the origins of the ophiolites in Samar and Leyte islands, Philippines. Int. Geology Review 60, 4, p. 401-417.
(On Samar, Tacloban and Malitbog Cretaceous ophiolite complexes)

Hedenquist, J.W., A. Arribas & M. Aoki (2017)- Zonation of sulfate and sulfide minerals and isotopic composition in the Far Southeast Porphyry and Lepanto epithermal Cu-Au deposits, Philippines. Resource Geology 67, 2, p. 174-196.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/rge.12127/epdf)
(On Far Southeast (FSE) porphyry system and adjacent Lepanto Lepanto Cu-Au high-sulfidation deposit of Mankayan mineral district of N Luzon. Age of mineralization ~1.3-1.4 Ma)

Hollings, P., G. Sweet, M. Baker, D.R. Cooke & R. Friedman (2013)- Tectonomagmatic controls on porphyry mineralization: geochemical evidence from the Black Mountain porphyry system, Philippines. In: M. Colpron et al. (eds.) Tectonics, metallogeny, and discovery: the North American Cordillera and similar accretionary settings, Society of Economic Geologists, Spec. Publ. 17, p. 301-335.
(Black Mountain SE Cu-Au porphyry system of Baguio district, N Luzon, two orebodies, associated with 6 intrusive phases between ~4.7- 2.8Ma. Porphyry mineralization interpreted to have formed as result of underplating of felsic magma chamber by mafic magma, from mantle recharge related to subduction of aseismic Scarborough Ridge)

Ilao, K.A., C.K. Morley & M.A. Aurelio (2018)- 3D seismic investigation of the structural and stratigraphic characteristics of the Pagasa Wedge, Southwest Palawan Basin, Philippines, and their tectonic implications. J. Asian Earth Sci. 154, p. 213-237.
(Pagasa Wedge deepwater orogenic wedge variously interpreted as accretionary prism, former accretionary prism modified by thrusting onto thinned continental margin, and gravity-driven fold-thrust belt. At least external part of wedge dominated by mass transport complexes. Accretionary prism stage (Oligocene) of C Palawan Ophiolite with N-vergent deformation. Deep Regional Unconformity (~17 Ma) likely indicates time when obduction ceased in Palawan. Pagasa Wedge is late-stage product of convergence history. Dominant NW transport of structures in wedge possibly related to gravity-driven structures responding to uplift of NE-SW Dangerous Grounds margin in M Miocene (related to slab breakoff?))

Karasawa, H., H. Kato, T. Kase, Y. Maac-Aguilar, M. Kurihara, H. Hayashi & K. Hagino (2008)- Neogene and Quaternary ghost shrimpsand crabs (Crustacea: Decapoda) from the Philippines. Bull. Nat. Science Museum, Tokyo, C34, p. 51-67.

(online at: http://ci.nii.ac.jp/naid/110007342090/en)

Keenan, T.E., J. Encarnacion, R. Buchwaldt, D. Fernandez, J. Mattinson, C. Rasoazanamparanye & P.B. Luetkemeyer (2016)- Rapid conversion of an oceanic spreading center to a subduction zone inferred from high-precision geochronology. Proc. National Academy Sciences USA 113, 47, p. E7359-E7366.
(online at: www.pnas.org/content/113/47/E7359.full.pdf)
(On initiation of subduction zones at spreading centers. In W Philippines oceanic crust was less than ~1 My old when it was underthrust and metamorphosed at onset of young, short-lived subduction in Palawan. Differences between ages of upper plate (Palawan ophiolite;35.2 Ma), subducting plate (protoliths of oceanic? sole,), and metamorphism (~34.2 Ma) of sole less than ~1 My. Young and positively buoyant, but weak, lithosphere was preferred site for subduction nucleation)

Knittel, U., M. Walia, S. Suzuki, C.B. Dimalanta, R. Tamayo, T.F. Yang & G.P. Yumul (2017)- Diverse protolith ages for the Mindoro and Romblon Metamorphics (Philippines): evidence from single zircon U-Pb dating. Island Arc 26, 1, e12160, p.
(Metamorphic complexes exposed in NE part of Palawan Continental Terrane considered to be rifted parts of Asian margin. Mindoro and Romblon Metamorphics with protoliths of variable age: Late Carboniferous-Late Permian in NE Mindoro; Eocene or younger in NW Mindoro; Miocene at S margin of Mindoro metamorphics (detrital zircon ages 22-56 Ma); and Cretaceous or later on Tablas (zircons as young as 112 Ma). Presence of non-metamorphic sediments of Late Eocene- E Oligocene age in Mindoro (Lasala Fm) suggests metamorphism of sediments of Mindoro result of Palawan terrane collision in Late Miocene (similarities in age spectra of zircons from Eocene-Miocene metamorphics with Eocene - E Miocene Lasala Fm))

Ku, C.Y. & S.K. Hsu (2009)- Crustal structure and deformation at the northern Manila Trench between Taiwan and Luzon islands. Tectonophysics 466, p. 229-240.
(Philippine Sea Plate overrides Eurasian Plate along E-dipping Manila Trench between Taiwan and Luzon islands. From S to N plate convergence gradually evolves from normal subduction of S China Sea lithosphere to initial collision of Taiwan orogen. Accretionary prism dramatically wider toward Taiwan. Subducting crust in the N Manila Trench area three zones: normal fault zone (where crust starts to bend and induces gravity sliding of upper sedimentary layers), proto-thrust zone and thrust zone (with blind thrust faults along location of pre-existing normal faults)

Lee, C.S., M.C. Galloway, J.B. Willcox, A. R. Fraser, A.M.G. Moore, J.R.L. Aposto, N.D. Trinidad, R.P. Abando, D.V. Panganiban & E.B. Guazon (1994)- Geology and petroleum potential of Ragay Gulf. Australian Geol. Survey Org. (AGSO), Canberra, Record 1994/41, Part 1, p. 1-42.
(online at: https://d28rz98at9flks.cloudfront.net/14753/Rec1994_041.pdf)

Lewis, S. D. (1997)- Philippines. In: Encyclopedia of European and Asian regional geology, Chapter 78, Springer, p. 591-604

Maglambayan, V.B., D. Ishiyama, T. Mizuta, A. Imai & Y. Ishikawa (1998)- Geology, mineralogy, and formation environment of the disseminated gold-silver telluride Bulawan Deposit, Negros Occidental, Philippines. Resource Geology 48, 2, p. 87-104.
(Bulawan Au-Ag-Te deposit in porphyry copper belt of SW Negros Island, hosted in Miocene dacitic hydrothermal breccia pipes)

Maglambayan, V.B.,·S. Montes,·K. Hipol, M. Mamitag, R.P. Pineda, R. Rodolfo, N. Oliveros & A. Sy (2008)- Carlin-type gold prospects in Surigao del Norte, Mindanao Island, Philippines: their geology and mineralization potential. Resource Geology 55, 3, p. 145-154.
(Three Carlin type-like gold deposits on NE Mindanao in jasperoid lenses in marl of M Miocene Mabuhay Fm)

Majima, R., T. Kase, S. Kawagata, Y.M. Aguilar, K. Hagino & M. Maeda (2007)- Fossil cold-seep assemblages from Leyte Island, Philippines. J. Geography 116, 5, p. 643-652.
(online at: https://www.jstage.jst.go.jp/article/jgeography1889/116/5/116_5_643/_pdf)

(In Japanese, with English Abstract. Fossilized chemosynthetic U Miocene- Lw Pliocene mollusc seep assemblages along coastal area of Tabango and Villaba, NW Leyte. Up to 5m big indurated carbonate blocks with beautifully preserved, large vesicomyid, lucinid, thyasirid and mytilid bivalves. No fossil illustrations)

Manalo, P.C., C.B. Dimalanta, D.V. Faustino-Eslava, B.D. Payot, N.T. Ramos, K.L. Queano, A. Perez & G.P. Yumul (2015)- Geochemical and geophysical characteristics of the Balud Ophiolitic Complex (BOC), Masbate Island, Philippines: implications for its generation, evolution and emplacement. Terrestrial Atmospheric Oceanic Sci. 26, 6, p. 687-700.
(online at: http://tao.cgu.org.tw/index.php/articles/archive/geophysics/item/1360-geochemical-and-...)
(E Cretaceous Balud Ophiolitic Complex on island of Masbate in C Philippines, with only upper crustal section exposed. Pillow basalts transitional mid-oceanic ridge basalt- island arc tholeiitic compositions. Low Bouguer gravity anomaly values suggest highly dismembered nature, as thin crustal slivers)

Manalo, P., C. Dimalanta, N. Ramos, D. Faustino-Eslava, K. Queano & G. Yumul (2016)- Magnetic signatures and Curie surface trend across an arc-continent collision zone: an example from Central Philippines. Surveys in Geophysics 37, 3, p. 557-578.
(In C Philippines striking differences between magnetic signatures of islands with continental affinity (negative magnetic anomalies) and island arc terranes (positive anomalies over Philippine Mobile Belt). Linear features in magnetic anomaly map coincide with Philippine Fault and its splays. Deepest point of magnetic crust is under Mindoro at 32 km. Curie surface shallows to E and is 21 km deep between Sibuyan and Masbate, and 18 km deep at junction of Buruanga Peninsula and Panay Island (boundary of the arc-continent collision, with obduction of mantle rocks over continental basement. Coincidence of magnetic boundary and density boundary supports compositional boundary that reflects the crust- mantle interface)

Mapaye, C.B., J.A. Bacud & R.B. Savella (2017)- Miocene clastic play in South West Palawan: a new playground for hydrocarbon exploration. In: SE Asia Petroleum Expl. Soc. (SEAPEX) Exploration Conf. 2017, Singapore, Session 3,p. 1- 37. *(Abstract + Presentation*
(Underexplored SW Palawan Basin clastic play in northern extension of active petroleum system in Sabah ('farm-in brochure'))

Marini, J.C., C. Chauvel & R. Maury (2005)- Hf isotope compositions of northern Luzon arc lavas suggest involvement of pelagic sediments in their source. Contr. Mineralogy Petrology 149, p. 216-232.

Mariotto, F.P. & A. Tibaldi (2003)- Do transcurrent faults guide volcano growth? The case of NW Bicol Volcanic Arc, Luzon, Philippines. Terra Nova 15, 3, p. 204-212.
(In NW Bicol Volcanic Arc (Luzon) Quaternary Labo and Caayunan volcanoes aligned with NW-striking transcurrent Philippine Fault System)

Moore, A.M.G. & J. Bacud (1994)- Geology and petroleum potential of Tayabas Bay. Australian Geol. Survey Org. (AGSO), Canberra, Record 1994/41, Part 2, p. 1-42.
(online at: https://d28rz98at9flks.cloudfront.net/14753/Rec1994_041.pdf)

Muller, C. & C.H. von Daniels (1989)- Stratigraphical and paleoenvironmental studies (Oligocene-Quaternary) in the Visaya Basin, Philippines. Newsletters on Stratigraphy 10, 1, p. 2-64.
(Biostratigraphic- paleoenvironmental results from Visayan Basin, from calcareous nannoplankton and foraminifera. With geological evolution of basin from M Oligocene-Pleistocene)

Orberger, B. & J. Alleweldt (1994)- Mineralogical and geochemical characteristics of platinum, palladium and Ni-Cu-sulfide bearing black serpentinite of the Acoje ophiolite block, Zambales, Philippines: mineralogical and geochemical characteristics. J. Southeast Asian Earth Sci. 9, 3, p. 229-239.

Pablico, E.F. & C.S. Lee (1994)- Geology and petroleum potential of Cuyo Platform. Australian Geol. Survey Org. (AGSO), Canberra, Record 1994/41, Part 4, p. 1-22.
(online at: https://d28rz98at9flks.cloudfront.net/14753/Rec1994_041.pdf)

Pacle, N.A.D., C.B. Dimalanta, N.T. Ramos, B.D. Payot, D.V. Faustino-Eslava, K.L. Queano and G.P. Yumul (2017)- Petrography and geochemistry of Cenozoic sedimentary sequences of the southern Samar Island, Philippines: clues to the unroofing history of an ancient subduction zone. J. Asian Earth Sci. 142, p. 3-19.
(Cenozoic sediments of S Samar Island in E Philippines record unroofing history of ancient arc terrane. Late Oligocene- E Miocene Daram Fm common chert and volcanic fragments, late M Miocene- E Pliocene Catbalogan Fm mainly composed of ultramafic components. Daram Fm eroded crustal portions of ophiolite, Catbalogan Fm represents later exhumation and erosion of ultramafic section. Oceanic island arc setting proposed for both formations)

Padrones, J.T., A. Imai & R. Takahashi (2017)- Geochemical behavior of Rare Earth Elements in weathered granitic rocks in Northern Palawan, Philippines. In: 5th Asia Africa Mineral Resources Conf., Quezon City, Philippines 2015, Resource Geology 67, 3, p. 231-253.
(Two geochemically similar plutons investigated for potential for placer-type LREE deposits on Palawan Block in Philippines: M Miocene Kapoas pluton (13.2 Ma) and Late Cretaceous Daroctan Granite (= Late Yanshanian of SE China))

Padrones, J.T., K. Tani, Y. Tsutsumi & A. Imai (2017)- Imprints of Late Mesozoic tectono-magmatic events on Palawan Continental Block in northern Palawan, Philippines. J. Asian Earth Sci. 142, p. 56-76.
(Late Cretaceous Daroctan Granite intruded Mesozoic melange in N-most Palawan Island. Monazite U-Th-Pb dating yielded Late Cretaceous age, similar to some Mesozoic granites surrounding S China Sea. Maximum ages of sediments and semi-schist Jurassic-E Cretaceous, with Late Cretaceous maximum age of deposition for meta-sediments. Palawan block accreted units possibly located at margin of continent-ocean collision in Mesozoic and eventually broke off from SE Eurasian margin)

Partridge, A.D. (1994)- Palynological analysis of San Francisco 1 and Katumbo Creek-1, Bondoc sub-basin, Luzon Island. Australian Geol. Survey Org. (AGSO), Canberra, Record 1994/41, Appendix 6, p. 1-25 +plates.
(online at: https://d28rz98at9flks.cloudfront.net/14753/Rec1994_041.pdf)

Perez, A., S. Umino, G.P. Yumul & O. Ishizuka (2018)- Boninite and boninite-series volcanics in northern Zambales ophiolite: doubly vergent subduction initiation along Philippine Sea plate margins. Solid Earth 9, p. 713-733.
(online at: https://www.solid-earth.net/9/713/2018/se-9-713-2018.pdf)
(Boninites are high-magnesium andesites that are key component of subduction-initiation suites, and is predominant in W Pacific forearc terranes. New discovery of boninite in Acoje Block of M Eocene (~44 Ma) Zambales ophiolite of W Luzon. Paleolatitudes place juvenile arc of N Zambales ophiolite in W margin of Philippine Sea plate, possibly in doubly vergent subduction initiation setting)

Queano, K.L., E.J. Marquez, C.B. Dimalanta J.C. Aitchison, J.R. Ali & G.P. Yumul (2017)- Mesozoic radiolarian faunas from the northwest Ilocos region, Luzon, Philippines and their tectonic significance. Island Arc 26, 4, e12195, p. 1-10.
(Dos Hermanos melange in NW Ilocos Norte, NW Luzon, with peridotites and metamorphic rocks blocks in sheared sandy matrix. Thrust onto the Eocene Bangui Fm turbidite succession and capped by U Miocene Pasuquin Limestone. With uppermost Jurassic- Lower Cretaceous radiolarian assemblages in deep marine bedded chert blocks (incl. many 'Tan Sin Hok species'. Tectonic melanges in C Philippines attributed E-M Miocene arc-continent collision involving Philippine Mobile Belt and Palawan Microcontinental Block)

Ribeiro, J.M., R.C. Maury & M. Gregoire (2016)- Are adakites slab melts or high-pressure fractionated mantle melts? J. Petrology 57, 5, p. 839-862.
(Adakites are unusual felsic igneous rocks commonly associated with asthenospheric slab window opening or fast subduction of young (<25 Ma) oceanic plate that may allow slab melting at shallow depths (in forearc settings). Incl. examples from Philippines)

Sherlock, R.L. & T.J. Barrett (2003)- Geology and volcanic stratigraphy of the Canatuan and Malusok volcanogenic massive sulfide deposits, southwestern Mindanao, Philippines. Mineralium Deposita 39, 1, p. 1-20.

Sonntag, I., C. Laukamp & S.G. Hagemann (2012)- Low potassium hydrothermal alteration in low sulfidation epithermal systems as detected by IRS and XRD: an example from the Co-O mine, Eastern Mindanao, Philippines. Ore Geology Reviews 45, p. 47-60.

Stephan, J.F. & C. Rangin (1984)- Superimposed collision episode in the northeastern part of the Sulu Sea from Middle Miocene to Present, Panay Island, Central Philippines. In: Symposium on Geodynamics of the Eurasian-Philippines Plateboundary, p. 69. *(Abstract only?)*

Suzuki, S., R.E. Pena, T.A. Tam, G.P. Yumul Jr., C.B. Dimalanta, M. Usui & K. Ishida (2017)- Development of the Philippine Mobile Belt in northern Luzon from Eocene to Pliocene. J. Asian Earth Sci. 142, p. 32-44.
(N Luzon in central part of Philippine Mobile Belt with pre-Paleocene ophiolitic complex, Eocene sediments, Eocene-Oligocene igneous complex and late Oligocene-E Pliocene sediments. In M Eocene PMB was primitive island arc. Late Oligocene- E Miocene time volcanic island arc setting. In M Miocene- Pliocene remained as mafic volcanic island arc)

Suzuki, S., G.P. Yumul, C.B. Dimalanta, R.E. Pena, T. Tam & K. Isihida (2013)- Sandstone composition of the upper Cretaceous to Neogene successions of the Philippine Mobile Belt and the Palawan Continental Block. Proc. 2nd lnt. Symposium Int. Geoscience Programme (IGP) Project 589, Borocay Island, p. 28-31. *(Abstract)*
(online at: http://igcp589.cags.ac.cn/2nd%20Symposium/Abstract%20volume.pdf)
(Sandstone compositions of Philippine Mobile Belt suggest it formed in Eocene as primitive basaltic volcanic arc and developed to basaltic-andesitic arc in Oligocene-Pliocene time. Sandstones from U Cretaceous in Palawan Continental Block rich in quartz and felsic volcanic rock fragments, suggesting PCB was part of continent and supports idea that PCB collided with PMB to form Philippine Archipelago)

Taguibao, K.J.L. & R. Takahashi (2018)- Whole-rock geochemistry of host rocks and K/Ar Age of hydrothermal mineral of the Co-O epithermal gold deposit, Mindanao, Philippines. Open J. of Geology 8, p. 383-398.
(online at: https://file.scirp.org/pdf/OJG_2018041215444466.pdf)
(Co-O epithermal gold deposit located along Pliocene-Quaternary calc-alkaline magmatic zone at E Mindanao. Intermediate sulfidation epithermal Au quartz vein type, hosted in Eocene- Oligocene island arc basaltic-andesitic volcanics and volcaniclastic rocks. K/Ar ages of hydrothermal minerals ~28.6 Ma (Late Oligocene) and ~31.7 Ma (E Oligocene))

Tangunan, D.N., A.M. Peleo-Alampay, J.B. Abuda, L.A.T. Mambuay, C.R.A. Ramos, A.G.S. Fernando et al. (2014)- Post-collision deposition of Balanga Formation in Northwest Mindoro, Philippines. Stratigraphy 11, 3-4, p. 235-243.
(Calcareous nannofossils from Balanga Fm calcareous sedimentary sequence in Mamburao, NW Mindoro (Palawan Block). Late Pliocene- E Pleistocene age (NN14- NN19; 1-~1.7- 4.1 Ma), formed after E-M Miocene collision of Palawan-Mindoro Block with Philippine Mobile Belt)

Tangunan, D.N., A.G.S. Fernando & C.A. Arcilla (2013)- Occurrence of Cretaceous calcareous nannofossils from Codon Formation, Catanduanes, Philippines. J. Geol. Soc. Philippines 64, p. 35-39.
(Cretaceous calcareous nannofossils from limestone units of Codon Fm in Codon Point, SW Catanduanes. Occurrence of M. prinsii suggests Late Maastrichtian age (in N Catanduanes also Yop Fm with mid-Cretaceous Orbitolina))

Tangunan, D.N., R.J.M. Antonio, A.R.C.Fernandez, A.C. Balota, M.L.C. Abad, A.M. Peleo-Alampay & A.G.S.F. Fernando (2013)- The Catbalogan Formation (Northern Samar, Philippines): new age data from calcareous nannofossils. J. Geol. Soc. Philippines 64, p. 40-47.
(Catbalogan Fm clastics in N Samar late E Miocene- early Late Miocene calcareous nannofossils (NN4- NN9))

Villaplaza, B.R.B., A.E. Buena, N.A.D. Pacle, B.D. Payot, J.A.S. Gabo-Ratio, N.T. Ramos et al. (2017)- Alteration and lithogeochemistry in the Masara gold District, Eastern Mindanao, Philippines, as tools for exploration targeting. Ore Geology Reviews 91, p. 530-540.
(Intermediate-low sulfidation epithermal gold deposit in Masara, E Mindanao, associated with diorite porphyry of Late Miocene Lamingag Intrusive Complex. Five major alteration zones, at least two mineralizing events)

Vogel, T., T. Flood, L. Patino, M. Wilmot, R. Maximo, C. Arpa, C. Arcilla & J. Stimac (2006)- Geochemistry of silicic magmas in the Macolod Corridor, SW Luzon, Philippines: evidence of distinct, mantle-derived, crustal sources for silicic magmas. Contrib. Mineralogy Petrology 151, 3, p. 267-281.
(Silicic volcanic deposits relatively abundant in Macolod Corridor, SW Luzon. Possibly from partial melting of mantle-derived, moderate to K-rich calc-alkaline magmas that ponded and crystallized in mid-crust)

Willis, B. (1939)- The Philippine Archipelago: an illustration of continental growth. Proc. 6th Pacific Science Congress, California, 1, p. 185-200.

Wu, W.N., C.L. Lo & J.Y. Lin (2017)- Spatial variations of the crustal stress field in the Philippine region from inversion of earthquake focal mechanisms and their tectonic implications. J. Asian Earth Sci. 142, p. 109-118.

Yan, Y., D. Yao, Z. Tian, C. Huang, W. Chen, M. Santosh, G.P. Yumul, C.B. Dimalanta & Z. Li (2018)- Zircon U-Pb chronology and Hf Isotope from the Palawan-Mindoro Block, Philippines: implication to provenance and tectonic evolution of the South China Sea. Tectonics 37, 4, p. 1063-1076.
(Palawan-Mindoro Block drifted from mainland Asia with spreading of S China Sea. U-Pb age and Hf isotopic data on detrital zircon grains from Eocene-Miocene sediments in Palawan-Mindoro Block show four major age groups (80-120, 160-180, 1600-2100 and 2200-2700 Ma). Eocene samples from Palawan-Mindoro similar to Taiwan, suggesting P-M Block still attached to South China margin in Eocene. Difference of zircons in Miocene samples reflects S-ward drifting of Palawan-Mindoro Block at or before that time)

Yokoyama, K., Y. Tsutsumi, T. Kase K.L. Queano & M.A. Yolanda (2012)- Provenance study of Jurassic to Early Cretaceous sandstones from the Palawan Microcontinental Block, Philippines. Mem. Nat. Museum Nat. Science, Tokyo, 48, p. 177-199.
(online at: http://www.kahaku.go.jp/research/publication/memoir/download/48/4811.pdf)
(Palawan microcontinental block in Philippines separated from SW coast of Asian continent during opening of S China Sea in Oligocene-Miocene times. Jurassic- E Cretaceous sandstones from Palawan block (Busuanga, Mindoro, Panay islands) with bimodal age distribution of detrital monazites: 140-260 Ma and 1800-2000 Ma. Pattern unlike SE China Sea or Indochina Peninsula, but similar to Korean Peninsula and in Zhejiang Province in E China. Jurassic- E Cretaceous sandstones of Palawan area deposited on E side of present-day Taiwan?)

Yoshida, K., N. Pulido & E. Fukuyama (2016)- Unusual stress rotations within the Philippines possibly caused by slip heterogeneity along the Philippine fault. J. Geophysical Research, Solid Earth, 121, 3, p. 2020-2036.

Yumul, G.P., G.R. Balce, C. Dimalanta & R.T. Datuin (1997)- Distribution, geochemistry and mineralization potentials of Philippine ophiolite and ophiolitic sequences. Ofioliti 22, p. 47-56.
(Philippines ophiolites range from complete oceanic crust-mantle sequences (Tethyan type) to incomplete dismembered ones (Cordilleran type). Majority subduction-related. With viable chromitite, volcanic/ ultramafic-hosted massive nickel-copper sulfide and platinum-group mineral deposits. Subduction-related ophiolitic sequences better exploration targets for metallic mineral deposits than mid-ocean ridge ophiolites)

Yumul, G.P., W.W. Brown, C.B. Dimalanta, C.A. Ausa, D.V. Faustino-Eslava, B.D. Payot, N.T. Ramos, A.N.L. Lizada et al. (2017)- Adakitic rocks in the Masara gold-silver mine, Compostela Valley, Mindanao, Philippines: different places, varying mechanisms? J. Asian Earth Sci. 142, p. 45-55.

Yumul, G.P., R.T. Datuin & J.C. Manipon (1990)- Geology and geochemistry of the Cabangan- San Antonio massifs, Zambales Ophiolite Complex, Philippines: tectonically juxtaposed marginal basin island arc terranes. J. Geol. Soc. Philippines 45, p. 69-100.
(San Antonio part of Zambales Ophiolite complex with arc-like geochemistry)

Zamoras, L.R. (2013)- Accretion and post-accretion tectonics of the North Palawan Block. Proc. 2nd lnt. Symposium lnternational Geoscience Programme (IGP) Project 589, Borocay Island, p. 19-20. *(Abstract)*
(online at: http://igcp589.cags.ac.cn/2nd%20Symposium/Abstract%20volume.pdf)
(N Palawan Block 4 episodes: M Permian- Jurassic oceanic plate travel, with deposition of chert and clastics; (2) M-Jurassic- E Cretaceous accretion of chert-clastic sequences at E Asian continental margin during Paleo-Pacific subduction; (3) M Oligocene- E Miocene opening of S China Sea, resulting in S-ward movement of N Palawan Block; (4) M Miocene collision between N Palawan Block and Philippine Island Arc)

Zhu, J., Z. Sun, H. Kopp, X. Qiu, H. Xu, S. Li & W. Zhan (2013)- Segmentation of the Manila subduction system from migrated multichannel seismics and wedge taper analysis. Marine Geophysical Res. 34, 3-4, p. 379-391.

Zhu, J., Z. Sun, H. Kopp, X. Qiu, H. Xu, S. Li & W. Zhan (2013)- Segmentation of the Manila subduction system from migrated multichannel seismics and wedge taper analysis. Marine Geophysical Res. 34, 3-4, p. 379-391.
(Manila subduction system three segments: (1) N Luzon, (2) seamount chain segment and (3) Luzon segment)

IX.9. South Philippines (Celebes Sea, Sulu Sea, Sandakan) (5)

Belviso, S., P. Jean-Baptiste, B.C. Nguyen, L. Merlivat & L. Labeyrie (1987)- Deep methane maxima and 3He anomalies across the Pacific entrance to the Celebes Basin. Geochimica Cosmochimica Acta 51, 10, p. 2673-2680
(Several methane seeps along flanks of two S Mindanao submarine ridges (Sangihe and Talaud East-Mindanao), at 2000-3000 meter depth. Isotopic ratio of added δ3He indicates input of hydrothermal fluids, both mantle and crustal/ sedimentary components. Methane anomalies partially associated with 3He excess, comparable to observed in spreading axis hydrothermal fields. Also major methane anomaly few 10's of km from Sangihe Ridge with no 3He enrichment, that could originate largely from shallow sedimentary layers)

Jong, J. & K. Futalan (2015)- Structural interpretation, seismic facies analysis and depositional model of offshore Sandakan Sub-Basin. In: Asia Petroleum Geoscience Conf. Exh. (APGCE 2015), Kuala Lumpur, p. 443-447.
(Sandakan sub-basin in Sulu Sea off NE Sabah relatively under-explored. Paleogeography of Sandakan sub-basin evolved from active fluvio-deltaic progradation setting in late E Miocene- early Late Miocene to shelfal marine deposition in Pliocene)

Oppo, D.W., B.K. Linsley, Y. Rosenthal, S. Dannenmann & L. Beaufort (2003)- Orbital and suborbital climate variability in the Sulu Sea, western tropical Pacific. Geochem. Geophys. Geosystems 4, 1, 1003, p. 1-20.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2001GC000260/epdf)
(Planktonic δ18O from sediment core MD97-2141 in Sulu Sea reveals that for past 400 kyr, δ18O variability on orbital timescales similar to that caused by changes in ice volume alone)

Schneider, D.A., D.V. Kent, & G.A. Mello (1992)- A detailed chronology of the Australasian impact event, the Brunhes-Matuyama geomagnetic polarity reversal, and global climate change. Earth Planetary Sci. Letters 111, p. 395-405.
(Australiasian microtektite peak layers in Sulu Sea ODP Holes 767B (49.63 mbsf) and 769A (61.31 mbsf))

Scibiorski, J., J. Jong, J. Rosser, P. Boss & B. Cassie (2009)- Prospectivity and exploration challenges of SC41 deepwater Sandakan Basin, South Sulu Sea. Proc. SE Asia Petroleum Expl. Soc. (SEAPEX) Exploration Conf. 2009, Singapore, p. 1-38. *(Abstract + Presentation)*
(Sandakan Basin off NE Sabah mainly in Philippine waters. Under-explored Tertiary sag basin with up to 6 km of Miocene -Pliocene deltaic and deepwater sediments. Previous exploration in basin focused on shallow water deltaic and carbonate plays; failure attributed to seal failure due to high sand content and cross fault leakage)

IX.10. SW Pacific (incl. New Caledonia, Solomon Islands) (63)

Adachi, Y., H. Inokuchi, Y. Otofuji, N. Isezaki & K. Yaskawa (1987)- Rotation of the Philippine Sea Plate inferred from paleomagnetism of the Palau and Yap islands. Rock magnetism and paleogeophysics 14, p. 72-74. *(online at: http://peach.center.ous.ac.jp/rprep/Rock%20Magnetism%20and%20Paleogeophysics%20vol14%201987.pdf)*
(Paleomag work on 16 sites in Palau Islands on S end of Kyushu-Palau Ridge suggest ~60°CW rotation, similar to results from other parts of W Philippine Sea)

Barclay, W., J.A. Rodd, J.C. Pflueger, K.R. Havard & S.P. Helu (1993)- Oil plays in the kingdom of Tonga, Southwest Pacific. Petroleum Expl. Soc. Australia (PESA) Journal 21, p. 79-92.
(Tonga area in SW Pacific inn E part of long Tertiary island-arc chain extending from PNG to New Zealand. Within chain basins with Tertiary reef developments, some with commercial oil and gas accumulations. On Tongatapu Island five wells drilled near oil seeps, but none reached Eocene reef limestone target)

Brocher, T.M. (ed.) (1985)- Investigations of the Northern Melanesian Borderland. Circum-Pacific Council Energy Mineral Resources, Houston, Earth Science Ser. 3, p. 1-199.

Brown, J.L., A.G. Christy, D.J. Ellis & R.J. Arculus (2014)- Prograde sulfide metamorphism in blueschist and eclogite, New Caledonia. J. Petrology 55, 3, p. 643-670.
(Sulfide inclusions in New Caledonia blueschist and eclogite)

Cathelineau, M., B. Quesnel, P. Gautier, P. Boulvais, C. Couteau & M. Drouillet (2016)- Nickel dispersion and enrichment at the bottom of the regolith: formation of pimelite target-like ores in rock block joints (Koniambo Ni deposit, New Caledonia). Mineralium Deposita 51, 2, p. 271-282.
(In New Caledonia richest Ni silicate ores occur in fractures within bedrock and saprolite, generally several 10's- 100m below present-day surface)

Coleman, P.J. (1970)- Geology of the Solomon and New Hebrides Islands as parts of the Melanesian re-entrant, Southwest Pacific. Pacific Science 24, p. 284-314.
(Solomon Islands and New Hebrides Archipelago examples of fractured island arcs. Both are crustal blocks, 20-30 km thick, and isolated from neighboring blocks. Their generalized stratigraphic columns remarkably similar and complete. Deep fracturing is dominant structural style, with differential uplifts of up to 6000m)

Coleman, R.G. (1971)- Plate tectonic emplacement of upper mantle peridotites along continental edges. J. Geophysical Research 76, 5, p. 1212-1222.
(Large oceanic-mantle crustal slabs thrust over or into continental edges contemporaneously with blueschist metamorphism in New Caledonia and New Guinea. 'Obduction' zones lack volcanic activity, and may result from initial stage of compressional impact between oceanic and continental lithospheric plate. Serpentinites represent alteration developed during tectonic emplacement into wet sediments of continental plate, which produces less dense and plastic envelope that facilitates further tectonic movement)

Collot, J.Y. & M.A. Fischer (1991)- The collision zone between the North d'Entrecasteaux Ridge and the New Hebrides Island Arc: 1. Sea Beam morphology and shallow structure. J. Geophysical Research 96, B3, p. 4459-4478.

Collot, J., M. Patriat, S. Etienne, P. Rouillard, F. Soetaert, C. Juan, B. Marcaillou et al. (2017)- Deepwater fold-and-thrust belt along New Caledonia's western margin: relation to post-obduction vertical motions. Tectonics 36, 10, p. 2108-2122.
(W margin of New Caledonia with 200 km long deepwater fold-and-thrust belt interpreted as gravity-driven system, after oversteepening of margin slope by post-obduction isostatic rebound. the margin. Thrust faults deeply rooted along low-angle floor thrust and connected to New Caledonia Island along major detachment)

Covellone, B.M., B. Savage & Y. Shen (2015)- Seismic wave speed structure of the Ontong Java Plateau. Earth Planetary Sci. Letters 420, p. 140-150.
(Ontong Java Plateau formed around 120 Ma. Region of fast shear wave speeds (>4.75 km/s)down to >100km beneath plateau. Wave speeds similar to cratonic environments and consistent with compositional anomaly that resulted from residuum of eclogite entrainment during plateau formation. Surfacing plume head entrained eclogite from deep mantle and accounts for anomalous buoyancy of plateau and fast wave speeds)

De Chetelat, E., (1947)- La genese et l'evolution des gisements de nickel de la Nouvelle-Caledonie. Bull. Soc. Geol. France, ser. 5, 17, p. 105-160.
('The genesis and evolution of the nickel deposits of New Caledonia')

Falloon, T.J., L.V. Danyushevsky, A.J. Crawford, S. Meffre, J.D. Woodhead & S.H. Bloomer (2008)- Boninites and adakites from the northern termination of the Tonga Trench: implications for adakite petrogenesis. J. Petrology 49, 4, p. 697-715.
(online at: https://academic.oup.com/petrology/article/49/4/697/1467522/Boninites-and-Adakites-from-the-Northern)
(Adakitic rocks dredged from N termination of Tonga Trench. Zircon ages 2.5 Ma, contemporaneous with boninite magmatism in area. High-SiO2 adakites in area where transition from steep Pacific subduction to transform fault plate boundary created slab window/ slab edge. Adakites result from direct melting of slab edge as result of juxtaposition of subducting slab against hot mantle derived from Samoan plume)

Fitton, J.G., J.J. Mahoney, P.J. Wallace & A.D. Saunders (2004)- Leg 192 synthesis: origin and evolution of the Ontong Java Plateau. In: J.G. Fitton et al. (eds.) Proc. Ocean Drilling Program (ODP), Scient. Results, 192, p. 1-18.
(online at: www-odp.tamu.edu/publications/192_SR/VOLUME/SYNTH/SYNTH.PDF)
(Mid-Cretaceous Ontong Java Plateau is most voluminous of world's large igneous provinces and represents by far largest known magmatic event on Earth (comparable in size to W Europe). Formed rapidly around 120 Ma (122- >112 Ma). Collision with old Solomon arc resulted in uplift of OJP S margin to create onland exposures of basaltic basement in Solomon Islands (Malaita, Santa Isabel, San Cristobal). Biostratigraphic dating of pelagic sediment intercalated with lava flows suggests magmatism on high plateau extended from ~122–112 Ma, but ReOs isotopic data on basalts from same sites single isochron age of 121.5 ± 1.7 Ma)

Gautier, P., B. Quesnel, P. Boulvais & M. Cathelineau (2016)- The emplacement of the peridotite nappe of New Caledonia and its bearing on the tectonics of obduction. Tectonics 35, 12, p. 3070-3094.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/2016TC004318/pdf)

Grover, J.C. (1955)- Geology, mineral deposits and prospects of mining development in the British Solomon Islands Protectorate. Geological Survey of the British Solomon Islands, Western Pacific Commission, Memoir 1, p. 1-108.

Grover, J.C., P.A. Pudsey-Dawson & R.B.M. Thompson (1958)- The Solomon Islands: Geological exploration and research, 1953-1956. Geological Survey of the British Solomon Islands. Memoir, 2, p. 1-151.

Grover, J.C., P.J. Coleman, P.A. Pudsey-Dawson et al. (1960)- The British Solomon Islands, Geological record 1957-1958, Reports on investigations into the geology and mineral resources of the protectorate. Geological Survey of the British Solomon Islands, 3, p. 1-113.
(online at: https://openresearch-repository.anu.edu.au/...)
(Collection of 1957-1958 survey reports)

Grover, J.C., R.B. Thompson, P.J. Coleman, R.L. Stanton & J.D. Bell (1965)- The British Solomon Islands Geological Record, Vol. II- 1959-62. Reports on the geology, mineral occurrences, petroleum possibilities, volcanoes and seismicity in the Solomon Islands. High Commissioner for the Western Pacific, p. 1-232.

Hammarstrom, J.M., C.L. Dicken, G.R. Robinson & A.A. Bookstrom (2013)- Porphyry copper assessment for Tract 009pCu7210, Outer Melanesian Arc II- Melanesia (Solomon Islands, Vanuatu, and Fiji). In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix V, p. 303-329.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of Eocene-Oligocene to late Miocene-Pleistocene porphyry coppers in Outer Melanesian magmatic arc in Solomon Islands, Vanuatu, and Fiji. Originally part of Eocene- E-M Miocene 'Vitiaz Arc, formed by subduction of Pacific Plate beneath Indo-Australian Plate along Vitiaz-Tonga Trench system until subduction reversal due to E-M Miocene collision of Ontong Java Plateau (incl. included New Ireland, Bougainville, Solomon Islands, Vanuatu, Fiji). Three known Pliocene porphyry copper deposits: Mt Koloula (Guadalcanal in Solomon Islands), Namosi and Waivaki (Viti Levu, Fiji) (Outer Melanesian in PNG with Panguna deposit on Bougainville and Arie deposit on Manus). Many other prospects))

Hoernle, K., F. Hauff, P. van den Bogaard, R. Werner, N. Mortimer, J. Geldmacher, D. Garbe-Schonberg & B. Davy (2010)- Age and geochemistry of volcanic rocks from the Hikurangi and Manihiki oceanic plateaus. Geochimica Cosmochimica Acta 74, 24, p. 7196-7219.
(Ar/Ar age and geochemical data show Hikurangi Plateau basement lavas (118-96 Ma) similar to Ontong Java Plateau (~120 and 90 Ma; primarily Kwaimbaita-type composition). Manihiki Plateau Site 317 lavas (117 Ma) similar to Singgalo lavas on Ontong Java Plateau. Alkalic seamount lavas (99-87 Ma and 67 Ma) on Hikurangi Plateau and adjacent Kiore Seamount derived from different mantle source (see also Timm et al. 2011)

Horibe, Y., K.R. Kim & H. Craig (1987)- Hydrothermal methane plumes in the Mariana back-arc spreading center. Nature 324, p. 131-133.
(Large plumes of methane-enriched water in Mariana Trough back-arc basin and also in summit crater of Loihi Seamount (present site of Hawaiian hotspot). Mariana vents enriched in methane without corresponding enrichment in 3He)

Itaya, T., R. Brothers & P. Black (1985)- Sulfides, oxides and sphene in high-pressure schists from New Caledonia. Contrib. Mineralogy Petrology 91, 2, p. 151-162.
(In New Caledonia high-pressure schists pyrite, pyrrhotite, chalcopyrite, rutile and sphene are common)

Ito, G. & P.D. Clift (1998)- Subsidence and growth of Pacific Cretaceous plateaus. Earth Planetary Sci. Letters 161, p. 85-100.
(On creation and subsidence of mid-Cretacoeus Ontong Java, Manihiki, and Shatsky oceanic plateaus)

Johnson, T. & P. Molnar (1972)- Focal mechanisms and plate tectonics of the southwest Pacific. J. Geophysical Research 77, 26, p. 5000-5032.
(Australian plate underthrusts Pacific plate to the ENE under Solomon and New Hebrides islands and overthrusts Pacific to E along Tonga-Kermadec arc and New Zealand North Island. Also NNE-SSW convergence of Pacific and Australian plates in NW New Guinea. Plate motions near Bismarck Archipelago complex because of presence of at least three additional small plates. Solomon Sea plate moving ~NW with respect to Australian plate and underthrusting Pacific plate to NE along Solomon arc)

Konter, J.G. (2007)- The origin and geologic evolution of seamounts in the Pacific Ocean. Ph.D. Thesis University of California, San Diego, p. 1-207.

Lagabrielle, Y. & A. Chauvet (2008)- The role of extensional tectonics in shaping Cenozoic New-Caledonia. Bull. Soc. Geologique France 179, 3, p. 315-329.
(New-Caledonia island with ultramafic nappe thrusted over continental and arc-derived basement as result of the closure of back-arc basin in Late Eocene. W and E edges of island are delineated by N140 trending normal faults. Onland main boundary of ultramafic nappe, also trend N140, all reflecting faults that accommodated extension and tectonic thinning peridotite nappe and its basement)

Larson, R.L. (1991)- Latest pulse of Earth: evidence for a mid-Cretaceous superplume. Geology 19, p. 547-550.

(Between 120-80 Ma 50-75% increase in Earth's oceanic crust formation, with spreading rate increases (especially in Pacific Ocean). Pulse decreased from 100-80 Ma, dropped significantly at 80 Ma, and continued decrease from 80-30 Ma. Mid-Cretaceous pulse interpreted as response to superplume that originated at ~125 Ma and erupted beneath mid-Cretaceous Pacific basin)

Larson, R.L. (1997)- Superplumes and ridge interactions between Ontong Java and Manihiki Plateaus and the Nova-Canton Trough. Geology 25, 9, p. 779-782.
(Initial pulse of volcanism on Ontong Java and Manihiki Plateaus before 123-124 Ma and largely ceased by ~122 Ma, while intervening Pacific-Phoenix spreading ridge probably disrupted between 120-115 Ma by formation of Nova-Canton Trough rift system)

Li, R.Q. & K. Sashida (2011)- Additional note on Earliest Cretaceous Entactinarians (Radiolaria) from the Mariana Trench. Paleontological Research 16, 1, p. 26-36.
(Well-preserved earliest Cretaceous radiolarians from tuffaceous claystone sample collected from seamount flank of Mariana Trench slope. Several new genera)

Li, R.Q. & K. Sashida (2013)- Morphological variability and phylogeny of the Upper Tithonian?-Berriasian Vallupinae (Radiolaria) from the Mariana Trench. J. Paleontology, 87, 6, p. 1186-1194.
(Common U Tithonian- Berriasian Vallupinae radiolaria in tuffaceous claystone from Mariana Trench. 17 radiolarian species, including three new)

Li, R.Q. & K. Sashida & Y. Ogawa (2011)- Earliest Cretaceous initial spicule-bearing spherical radiolarians from the Mariana Trench. J. Paleontology, 85, p. 92-101.
(Well-preserved earliest Cretaceous radiolarians from tuffaceous claystone from seamount flank of Mariana Trench. Families Centrocubidae and probably Entactiniidae identified)

Li, Y.B., J.I. Kimura, S. Machida, T. Ishii, A. Ishiwatari, S. Maruyama, H.N. Qiu, T. Ishikawa et al. (2013)- High-Mg adakite and low-Ca boninite from a Bonin fore-arc seamount: Implications for the reaction between slab melts and depleted mantle. J. Petrology 54, 6, p. 1149-1175.
(online at: https://academic.oup.com/petrology/article/54/6/1149/1409047)
(In Izu-Bonin-Mariana initial subduction-related boninitic magmatism between 48-44 Ma. High-Mg adakites and low-Ca boninites dredged from Bonin Ridge fore-arc seamount, with overlapping ages or adakite magmatism occurred slightly later than boninite magmatism. Both magma types could be generated by partial melting of depleted mantle source fluxed by water-rich slab-derived melts in subduction environment)

Madrigal, P., E. Gazel, K.E. Flores, M. Bizimis & B. Jicha (2016)- Record of massive upwellings from the Pacific large low shear velocity province. Nature Communications 7, 13309, p. 1-12.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5105175/pdf/ncomms13309.pdf)

Mahoney, J., D.M. Storey, K. Spencer & M. Pringle (1993)- Geochemistry and age of the Ontong Java Plateau. In: M.S. Pringle et al. (eds.) The Mesozoic Pacific: geology, tectonics and volcanism, American Geoph. Union (AGU) Geophys. Monograph 77, p. 233-261.
(online at: www.mantleplumes.org/WebDocuments/Mahoney93_GeoMon77.pdf)
(Basement rocks of Ontong Java Plateau tholeiitic basalts that appear to record very hig degree of partial melting, like thise found in Iceland. Mean Ar/Ar ages of ODP Site 807 lavas and basement from Malaita island 122.4 ± 0.8 Ma (Aptian). Pb-Nd-Sr isotopes indicate hotspot-like source)

Meffre, S., A.J. Crawford & P.G. Quilty (2006)- Arc-continent collision forming a large island between New Caledonia and New Zealand in the Oligocene. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2006), Melbourne, p. 1-4. *(Extended Abstract)*
(Dredge samples from Three Kings Ridge between New Caledonia and New Zealand show presence of old collisional orogen: 38 Ma high-P metamorphic rocks, mantle peridotite (from forearc of island arc) and continental-derived rocks with Cretaceous and older Gondwanan zircons and Late Oligocene- E Miocene fossil leaves. Large island E of Three Kings Ridge between 38-21 Ma, subsided with opening of S Fiji basin)

Meijer, A. (1980)- Primitive arc volcanism and a boninite series; example from western Pacific Island arcs. In: The tectonic and geologic evolution of Southeast Asian seas and islands, American Geophys. Union (AGU), Geophys. Monograph Ser. 23, p. 269-282.
(Several W Pacific islands of Mariana-Bonin arcs with olivine-bronzite andesites, known as boninites. Production of boninite may require high geothermal gradients in mantle overlying subduction zone, as in subduction under young, hot Philippine Sea plate)

Mortimer, N. & D. Parkinson (1996)- Hikurangi Plateau: a Cretaceous large igneous province in the southwest Pacific Ocean. J. Geophysical Research 101, B1, p. 687-696.
(First dredge samples s from Hikurangi Plateau basement volcanics/volcaniclastics of pre-Late Cretaceous age. All samples extensive seafloor weathering to phyllosilicate- and zeolite-bearing assemblages. Petrology similar to other Cretaceous large igneous provinces in W Pacific (e.g., Manihiki, Ontong Java Plateaus)

Mosher, D.C. (1993)- Seismic stratigraphy of the Ontong Java Plateau, western equatorial Pacific: its paleoceanographic significance. Ph.D. Thesis Dalhousie University, Halifax, p. 1-191.
(Seismic stratigraphy study of flank of large deep water carbonate Ontong Java Plateau. Sediment column >1000m thick at top of plateau, consisting of mainly pelagic sediments)

Murphy, M., H. Parker, A. Ross & M.A. Audet (2013)- Ore-thickness and nickel grade resource confidence at the Koniambo nickel laterite (a conditional simulation voyage of discovery). Geostatistics Banff 2004, 1, Springer Verlag, p. 469-478.

Neall, V.E. & S.A. Trewick (2008)- The age and origin of the Pacific islands: a geological overview. Philos. Trans. Royal Soc. London, B 363, p. 3293-3308.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2607379/pdf/rstb20080119.pdf)
(Pacific Ocean evolved from Panthalassic Ocean that first formed at ~750 Ma with breakup of Rodinia. First ocean floor ascribed to current Pacific plate formed by 160 Ma, W of spreading centre in C Pacific. Islands of Pacific originated as: linear chains of volcanic islands (mantle plume or propagating fracture origin), atolls, uplifted coralline reefs, fragments of continental crust (New Zealand, Chatham Islands, New Caledoni), obducted portions of adjoining lithospheric plates and islands resulting from subduction along convergent plate margins. 11 linear volcanic chains identified)

Park, C.H., K. Tamaki & K. Kobayashi (1990)- Age-depth correlation of the Philippine Sea back-arc basins and other marginal basins in the world. Tectonophysics 181, p. 351-371.
(Basement depths of Philippine Sea range from 3200-6000m, with ages from 0-60 Ma. Depth of Philippine Sea ~800m deeper than that of major ocean floors of same age. Young back-arc basins (<10 Ma) both shallower and deeper than major oceans, depending on dip angles of corresponding subducting slabs: shallower back-arc basins above gently dipping slabs, deeper basins over steeply dipping slabs. Back-arc basins older than 15 Ma, always deeper than major oceans and follow age-depth curve of Philippine Sea back-arc basins)

Pownall, J.M., G.S. Lister & W. Spakman (2017)- Reconstructing subducted oceanic lithosphere by óreverse-engineeringô slab geometries: The northern Philippine Sea Plate. Tectonics 36, 9, p. 1814-1834.
(On restoring pre-subduction configuration of Ryukyu and Shikoku slabs, NW Philippine Sea)

Quesnel, B. (2015)- Alteration supergene, circulation des fluides et deformation interne du massif de Koniambo, Nouvelle-Caledonie: implication sur les gisements nickeliferes lateritiques. Doct. Thesis Universite Rennes, p.
(online at: https://core.ac.uk/download/pdf/46807769.pdf)
('Supergene alteration, circulation of fluids and internal deformation of the Koniambo Massif, New Caledonia: implication for the nickeliferous lateritic deposits')

Quesnel, B., C.L.C. de Veslud, P. Boulvais, P. Gautier, M. Cathelineau & M. Drouillet (2017)- 3D modeling of the laterites on top of the Koniambo Massif, New Caledonia: refinement of the per descensum lateritic model for nickel mineralization. Mineralium Deposita 52, 7, p. 961-978.
(Weathering of peridotite nappe in New Caledonia created common laterites and some of largest nickel deposits in world. Koniambo nickel ore deposit three kinds of geometry: (1) thick (20-40m) laterite over saprolite, mainly on topographic highs; (2) a thin laterite cover on areas with gentle slopes; (3) exposure of saprolite without laterite cover. Highest Ni on slopes where laterite cover thin or absent, lowest Ni in topographic highs under thickest laterite cover)

Quesnel, B., P. Gautier, P. Boulvais, M. Cathelineau, P. Maurizot, D. Cluzel, M. Ulrich et al. (2013)- Syn-tectonic, meteoric water-derived carbonation of the New Caledonia peridotite nappe. Geology, 41, 10, p. 120-125.
(Serpentine sole of New Caledonia peridotite nappe at Koniambo with many magnesite veins, emplaced during pervasive top-to-SW shear deformation. O and C isotopes of magnesite suggest origin from meteoric fluids)

Quesnel, B., P. Gautier, M. Cathelineau, P. Boulvais, C. Couteau & M. Drouillet (2016)- The internal deformation of the peridotite nappe of New Caledonia: a structural study of serpentine-bearing faults and shear zones in the Koniambo Massif. J. Structural Geol. 85, p. 51-67.
(Koliambo peridotite nappe upper level at least two deformation events(1) with growth of antigorite (WNW-ESE extension), (2) with growth of polygonal serpentine (NW-SE compression). Lower level coincides with the 'serpentine sole' of nappe, consisting of massive tectonic breccias overlying layer of mylonitic serpentinites. Intermediate level with several m-thick conjugate shear zones accommodating NE-SW shortening)

Richter, C. & J.R. Ali (2015)- Philippine Sea Plate motion history: Eocene-Recent record from ODP Site 1201, central West Philippine Basin. Earth Planetary Sci. Letters 410, p. 165-173.
(Sediments at ODP Site 1201 lower sequence of volcaniclastic turbidites sourced from Palau-Kyushu Ridge and upper succession of Late Oligocene- E Pliocene red deep-sea clays. Paleolatitudes derived from sediments support N-ward movement of plate since Eocene. Basaltic basement indicates paleoposition of ~7.1° S in M Eocene)

Scott, R.B. & L. Kroenke (1981)- Periodicity of remnant arcs and back-arc basins of the South Philippine Sea. Proc. 26th Int. Geol. Congress, Geology of continental margins symposium, Oceanologica Acta 1981, Spec. Vol., p. 193-202.
(online at: http://archimer.ifremer.fr/doc/00245/35654/34163.pdf)
(In S Philippine Sea remnant arc precursors of modern Mariana arc and intervening back-arc basins progressively developed from W to E in Eocene- Recent time, to form Palau-Kyushu Ridge, Parece Vela Basin, W Mariana Ridge and modern Mariana Trough- Mariana arc. New data suggest initial periods of back-arc spreading coincident with minimal arc volcanism)

Smith, I.E.M., T.J. Worthington, R.C. Price & J.A. Gamble (1997)- Primitive magmas in arc-type volcanic associations: examples from the Southwest Pacific. The Canadian Mineralogist 35, p. 257-273.
(Samples from three SW Pacific volcanic arcs (Kermadec, New Zealand and Papuan arcs) shows contrasting geochemical patterns that correlate with different tectonic settings. Magmas with primitive chemical characteristics comparatively rare, and appear to occur where extensional tectonic setting allowed paths of relatively rapid ascent. In typical arc settings, magma ponds above its source and is modified by fractionation, eruption, assimilation and recharge processes)

Spandler, C., J. Hermann, K. Faure, J. Mavrogenes & R. Arculus (2008)- The importance of talc and chlorite ñhybridò rocks for volatile recycling through subduction zones; evidence from the high-pressure subduction melange of New Caledonia. Contrib. Mineralogy Petrology 155, 2, p. 181-198.

Strogen, D.P., H. Seebeck, A. Nicol, P.R. King (2017)- Two-phase Cretaceous-Paleocene rifting in the Taranaki Basin region, New Zealand; implications for Gondwana break-up. J. Geol. Soc., London, 174, 5, p. 929-946.

(In offshore Taranaki Basin region two phases of rifting, recording Gondwana break-up of E Gondwana margin: (1) Zealandia rift phase, producing NW-WNW-trending half-grabens in M Cretaceous (~105- 83 Ma), predating Tasman Sea spreading centres, followed by short period (~83- 80 Ma) of uplift and erosion, possibly representing break-up unconformity; (2) West Coast-Taranaki rift phase, producing N-NE-trending half-grabens in shelfal Taranaki Basin in latest Cretaceous-Paleocene (~80-55 Ma). Rift narrow (<150 km wide), orthogonal to Zealandia phase rifting, affecting mainly W Zealandia and did not progress to full break-up)

Tapster, S.R. (2013)- A record of plateau- arc collision: the crustal and tectonic evolution of Guadalcanal, Solomon Islands. Ph.D. Thesis University of Leicester , p. 1-271.
(online at: https://www.bgs.ac.uk/research/bufi/downloads/S176SimonTapster2014Thesis.pdf)
(Convergence between Ontong Java Plateau (world's largest and thickest oceanic plateau) and intra-oceanic Solomon Island Arc, represents youngest arc- plateau collision, and prime example of subduction zone polarity reversal. Collision implicated as cause of several Cenozoic plate motion changes. Guadalcanal Island magmas emplaced at ~23.7 Ma contain Eocene-Archean-aged zircons first evidence of continent-derived material in Solomon Island Arc. Microcontinental plateau- arc collision likely caused transfer of zircons to Guadalcanal's crust and triggered Eocene-aged ophiolite obduction in arc. Changes to magma geochemistry at ~23 Ma coeval with resumption of typical plate motions, following slowing and deflection of Australian Plate at ~26–23 Ma and slab detachment at ~23 Ma, after Ontong Java Plateau collision. Arc magmatism rejuvenated before ~7.7 Ma. Slab detachment crucial for causing M Miocene reversal of subduction zone polarity)

Tejada, M.L.G., J.J. Mahoney, C.R. Neal, R.A. Duncan & M.G. Petterson (2002)- Basement geochemistry and geochronology of Central Malaita, Solomon Islands, with implications for the origin and evolution of the Ontong Java Plateau. J. Petrology 43, 3, p. 449-484.
(online at: http://petrology.oxfordjournals.org/content/43/3/449.full.pdf+htm)
(Sections of basalt basement in C Malaita 0·5–3.5 km thick and resemble expanded version of Ontong Java Plateau at ODP Site 807. Ar-Ar ages of 121-125 Ma identical to Site 807, S Malaita, Ramos, Santa Isabel and DSDP Site 289. The ∼90 Ma eruptive episode seen in Santa Isabel, San Cristobal, and Sites 803 and 288 not present. C Malaitan basalts two distinct ocean-island-like mantle sources, not from normal ocean-ridge-type mantle. Plume-head may account for geochemical characteristics, but observed stratigraphic succession requires special conditions for latter model. Other features of Ontong Java Plateau that do not fit plume-head model: at least two important, geochemically similar eruptive episodes ∼30 My apart, lack of obvious plume-tail trace, and lack of evidence for emergence/uplift)

Timm, C., B. Davy, K. Haase, K.A. Hoernle, I.J. Graham, C.E.J. de Ronde, J. Woodhead, D. Bassett et al. (2014)- Subduction of the oceanic Hikurangi Plateau and its impact on the Kermadec arc. Nature Communications 5, 4923, p. 1-9.
(online at: www.nature.com/articles/ncomms5923)
(Large igneous province subduction at oceanic Hikurangi Plateau beneath S Kermadec arc, off N New Zealand. Large portion of Hikurangi Plateau (missing Ontong Java Nui piece) already subducted)

Timm, C., K. Hoernle, R. Werner, F. Hauff, P. van den Bogaard, P. Michael, M.F. Coffin & A. Koppers (2011)- Age and geochemistry of the oceanic Manihiki Plateau, SW Pacific: new evidence for a plume origin. Earth Planetary Sci. Letters 304, p. 135-146.
(Basement samples from Manihiki Plateau mainly tholeiites with minor basaltic andesites and hawaiites, with mean age of 124.6 ± 1.6 Ma. Geochemistry of Manihiki Plateau best explained by plume with three components, including recycled oceanic crustal-type component. Similarity in age and geochemical composition of Manihiki, Hikurangi and Ontong Java basement lavas)

Tregoning, P., F. Tan, J. Gilliland, H. McQueen & K. Lambeck (1998)- Present-day crustal motion in the Solomon Islands from GPS observations. Geophysical Research Letters 25, 19, p. 3627-3630.
(Global Positioning System measurements in Solomon Islands show active deformation between Pacific Plate and Solomon Arc block. Convergence at San Cristobal Trench ∼52±4 mm/yr, with no apparent local deformation. Guadalcanal and Makira islands mainly moving with Pacific Plate, but probably minor decoupling from Pacific Plate of 14-23 mm/yr in direction of 75-85°)

Trescases, J.J. (1975)- Lôevolution geochimique supergene des roches ultrabasiques en zone tropicale- Formation des gisements nickeliferes de Nouvelle-Caledonie. Memoires ORSTOM 78, p.
(online at: https://dimenc.gouv.nc/sites/default/files/download/trescases.pdf)
('The supergene geochemical evolution of ultrabasic rocks in tropical zones - Formation of the nickel-bearing deposits of New Caledonia')

Uruski, C. (2015)- The contribution of offshore seismic data to understanding the evolution of the New Zealand continent. In: G.M. Gibson et al. (eds.) Sedimentary basins and crustal processes at continental margins: from modern hyper-extended margins to deformed ancient analogues, Geol. Soc., London, Spec. Publ. 413, p. 35-51.

Wright, N.M., M. Seton, S.E. Williams & R.D. Muller (2016)- The Late Cretaceous to recent tectonic history of the Pacific Ocean basin. Earth-Science Reviews 154, p. 138-173.

Yen, H.Y., Y.S. Lo, Y.L. Yeh, H.H. Hsieh, W.Y. Chang, C.H. Chen, C.R. Chen & M.H. Shih (2015)- The crustal thickness of the Philippine Sea Plate derived from gravity data. Terrestrial Atmospheric Oceanic Sci. 26, 3, p. 253-259.
(Gravity modeling indicates crustal thickness in Spart of W Philippine Basin nearly homogeneous at ~5km. Average crustal thickness of Palau Kyushu Ridge >10 km. In E PSP crustal thickness increases to E. Also relatively thin and low density mantle under Parece Vela Basin as consequence of back-arc spreading)

Zhang, G.L. & C. Li (2016)- Interactions of the Greater Ontong Java mantle plume component with the Osbourn Trough. Nature, Scientific Reports 6, 37561, p. 1-8.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5116616/pdf/srep37561.pdf)
(Ontong Java-Manihiki-Hikurangi plateau originated from Cretaceous mantle plume, and rifted apart by two spreading ridges. Manihiki-Hikurangi plateaus rifted apart by Osbourn Trough, with basaltic crust of 103.7 ± 2.3 Ma. Osbourn Trough is abandoned segment of early Pacific spreading ridge)

Zhang, Y., S.Z. Li, Y.H.Suo, L.L. Guo, S. Yu, S. J. Zhao, I D.Somerville, R.H. Guo, Y.B. Zang, Q.L. Zheng & D.L. Mu (2016)- Origin of transform faults in back-arc basins: examples from Western Pacific marginal seas. Geological J. 51, Suppl. 1, p. 490-512.
(Study of transform faults in 4 marginal basins in W Pacific, i.e. S China Sea, Okinawa Trough, W Philippine Basin and Shikoku-Parece Vela Basin. Transform faults in all basins generally NNE-trending)

Zonenshayn, L.P. & V.V. Khain (1990)- Eocene-Miocene plate tectonic history of Melanesia. Int. Geology Review 32, 6, p.565-577.
(Late Cretaceous-Eocene Melanesian island arc with subduction zone dipping NE beneath Pacific Ocean been reconstructed from distribution of island-arc complexes in N New Guinea, New Caledonia and North Island of New Zealand. Marked change in movement of Pacific plate with respect to Australia and Eurasia at 43 Ma. E Miocene collision between Melanesian arc and passive margin of Australia. At same time, spreading axis was at rear of Melanesian arc, from which Caroline basin was formed)

IX.11. Papua New Guinea (East New Guinea main island)   (69)

Barret, R.A. (1999)- Plio-Pleistocene sedimentation and biogenic gas generation Waropen and Ramu Basins, Neu Guinea (Irian) Island, In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 87. *(Abstract only)*.
(Waropen and Ramu basins along N margin of New Guinea formed in Neogene. Characterized by extremely high Plio-Pleistocene sedimentation rates, of mainly marine turbiditic deposits: up to 12km in Waropen basin, up to 7km of Pleistocene in Ramu Basin. Common organic (plant) material. Waropen basin with biogenic methane flows in wells and seeps)

Boyd, G., V. Donagemma, J. McPherson, M. Dubsky, Y. Sun & S. Barclay (2015)- Innovative 3D reservoir characterization in the Papua New Guinea Fold belt. In: Proc. Eastern Australian Basins Symposium (EABS), Petroleum Expl. Soc. Australia (PESA), p. 289-296
(Reservoir models of latest Jurassic Imburu Fm (Iagifu, Hedinia, Digimu members) and earliest Cretaceous Toro Sst, using data from 156 wells in PNG foldbelt, from P'nyang in NW to Iehi Field in SE. Deposited in two depositional settings: (1) prograding, shallow marine or nearshore, and (2) outer estuarine mouth bar environment. Key reservoir sandbodies composed of stacked sequences of uniform sandstones, with lateral and vertical continuity of nearshore and incised valley fill deposits for 10's- 100's km along foldbelt. In Juha Field elevated temperatures (probably burial related) significantly reduced rock quality)

Boyd, G.A., V. Donagemma, J.G. McPherson, M.K. Dubsky, Y. Sun & S.A. Barclay (2016)-Innovative 3-D reservoir characterization in the Papua New Guinea fold belt. AAPG/SEG Int. Conf. Exhibition, Melbourne, Search and Discovery Article 30440, 9p.
(online at: http://www.searchanddiscovery.com/pdfz/documents/2016/30440boyd/ndx_boyd.pdf.html)
(Same paper as Boyd et al. (2015, above))

Brocard, G., S. Zahirovic, T. Salles & P. Rey (2018)- Plio-Pleistocene river drainage evolution in New Guinea. Implications for reservoir mineralogy predictions. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, p. 1-6. *(Extended Abstract)*
(online at: http://www.publish.csiro.au/EX/ASEG2018abT5_1A)
(River drainage of New Guinea evolved rapidly since Pliocene time. Relief growth initiated in accreted oceanic terranes in N and migrated into Australian margin interior over time. Rise of Highlands and Papuan Peninsula spurred drainage reorganization, and affected composition of clastic sediments delivered to shelves)

Caffi, P. (2008)- Evolution of an active metamorphic core complex, Suckling-Dayman Massif, eastern PNG B.S. Honours Thesis, Macquarie University, Sydney, p. 1-165.

Callot, J.P., W. Sassi, F. Roure, K.C. Hill, N. Wildon & R. Divies (2017)- Pressure and basin modeling in foothill belts: a study of the Kutubu Area, Papua New Guinea fold and thrust belt. In: M.A. AbuAli et al. (eds) Petroleum systems analysis- case studies, AAPG Memoir 114, Chapter 7, p. 165-190.
(Full paper of Callot et al. 2015 Abstract)

Chappell, J., A. Omura, T. Esat, M. McCulloch, J. Pandolfi, Y. Ota & B. Pillans (1996)- Reconciliation of late Quaternary sea levels derived from coral terraces at Huon Peninsula with deep sea oxygen isotope records. Earth Planetary Sci. Letters 141, p. 227-236.
(Late Quaternary sea level changes from 120ka- now derived from raised coral reef terraces at Huon Peninsula in PNG now good correspondence with trends derived from oxygen isotopes in deep sea cores)

Chappell, J., Y. Ota & C. Campbell (1998)- Decoupling post-glacial tectonism and eustasy at Huon Peninsula, Papua New Guinea. In: I.S. Stewart & C. Vita-Finzi (eds.) Coastal tectonics, Geol. Soc, London, Special Publ. 146, p. 31-40.

Cooper, G., D. Kendrick, F. Waina, C. Hamilton & M. Nongkas (2012)- New insights in to the structural and thermal development of the Papuan Foreland: implications for hydrocarbon charge and prospectivity. In: Eastern Australian Basins Symposium (EABS) IV, Brisbane, Petroleum Expl. Soc. Australia (PESA), 14p.
(Thermochronological data for 29 wells in Papuan Foreland show present-day heat flow consistent with median values for Australian continental plate. Paleothermal data suggest Cecilia Trough and Morehead Graben presently at maximum temperatures, but wells in central Foreland much higher temperatures in past, suggesting either km-scale uplift and erosion or (less likely) elevated heat flows associated with Coral Sea Rifting in Late Cretaceous-Paleocene)

Corbett, G.J. (2005)- The geology and mineral potential of Papua New Guinea. Papua New Guinea Department of Mining, Port Moresby, p. 1-152.

Darnault, R., K.C. Hill, J.M. Mengus & N. Wilson (2015)- Analogue modeling of the Papua New Guinea fold and thrust belt. In: Proc. Eastern Australian Basins Symposium (EABS), Petroleum Expl. Soc. Australia (PESA), p. 249-254.
(Similar to Darnault et al. 2015, 2016)

Davies, H. L. (1969)- Notes on Papuan Ultramafic Belt mineral prospects, Territory of Papua and New Guinea Bureau Mineral Res., Canberra, Record 1969/67, p. 1-19.
(online at: https://d28rz98at9flks.cloudfront.net/12326/Rec1969_067.pdf)
(Presence of nickel sulphide and chromitite lenses. Lateritic nickel prospects in Ultramafic Belt deemed uneconomic)

Davies, H.L. (1976)- Papua New Guinea Ophiolites. 25th Int. Geological Congress, Sydney, Excursion Guide 52A, p. 1-16.

Davies, H., M. Swift & L. Jonda (2014)- Puzzling juxtaposition of extensional and contractional tectonics in southeastern Papua New Guinea. Proc. 6th Research Science Technology (RST) Conf. University PNG, 141119, p. 1-5.
(SE one-third of Peninsula shows extensional tectonics N of ~10°S, with outcrops of ophiolite and metamorphic rocks, and contractional tectonics S of that line. Extensional tectonics reflect W-ward propagation of Woodlark Rift, contractional structures due to convergence between Papuan Plateau and Papuan Peninsula)

DesOrmeau, J.W., S.M. Gordon, T.A. Little, S.A. Bowring & N. Chatterjee (2017)- Rapid time scale of Earthộs youngest known ultrahigh-pressure metamorphic event, Papua New Guinea. Geology 45, 9, p. 795-798.
(Youngest known UHP eclogite from eastern PNG (Mailolo Dome) shows crustal rocks subducted to P 27-31 kbar and T ~715 °C. Zircons suggest ages of 6.0 ± 0.2 Ma to 5.2 ± 0.3 Ma for UHP metamorphism and 3.2-2.3 cm/yr exhumation rate. Subsequent retrogression of terrane near base of crust and final emplacement in upper crust in < ~3 My)

Downes, P.M., R.H. Findlay, S. Nekitel, J. Arumba & G. Kopi (1994)- Review of the geology and mineralisation of the Kainantu Area, Papua New Guinea. In: R. Rogerson (ed.) Proc. PNG Geology, Exploration and Mining Conf., Lae, Australasian Inst. of Mining and Metallurgy (AusIMM), p. 1-9.
(Kainantu area in composite Scrapland composed of Mesozoic greenschist - amphibolite facies Bena Bena and Goroka Fm metamorphics and intrusives, overlain by Late Cretaceous-Miocene marine sediments, volcanics and M-L Miocene intrusives. Four deformation events, oldest producing slaty cleavage and isoclinal E-W trending folds. Known mineralization gold-copper skarn, porphyry copper epithermal and gold placer deposits, many associated with 9-13 Ma old porphyry intrusives)

England, R.N. & H.L. Davies (1973)- Mineralogy of ultramafic cumulates and tectonites from Eastern Papua. Earth Planetary Sci. Letters 17, p. 416-425.

Espi, J.O., K.I. Hayashi, K. Komuro, Y. Kajiwara & H. Murakami & (2005)- The Bilimoia gold deposit, Kainantu, Papua New Guinea: a fault-controlled, lode-type, synorogenic tellurium-rich quartz-gold vein system. In: 8th Biennial Meeting, Soc. Geology Applied to Mineral Deposits, Beijing, Springer, 9-19, p. 941-944.
(Bilimoia gold deposit in NE PNG is fault-hosted quartz-gold vein system hosted by 290-221 Ma years old basement that was regionally metamorphosed to greenschist facies at ~45 Ma. Mineralisation related to I-type, intermediate-felsic 9-7 Ma year-old porphyries)

Fisher, M.S. (1936)- The origin and composition of alluvial gold, with special reference to the Morobe goldfield, New Guinea. Trans. Inst. Mining Metallurgy 44, p. 337-563.

Fitz, G.G. (2011)- Offshore mapping and modeling of Miocene-Recent extensional basins adjacent to metamorphic gneiss domes of the D'Entrecasteaux Islands, eastern Papua New Guinea. M.Sc. Thesis University of Texas at Austin, p. 1-183.
(online at: https://repositories.lib.utexas.edu/handle/2152/14789)
(D'Entrecasteaux Island gneiss domes fault-bounded domes with ~2.5 km of relief, exposing UHP and HP metamorphic gneisses and migmatites, exhumed in Oligocene-Miocene arc-continent collision-subduction zone, subject to Late Miocene- Recent continental extension. Subduction slowed at ~8 Ma as margin transitioned to extensional tectonic environment. Lack of upper crustal extension accompanying subsidence in Trobriand and Goodenough basins suggests lithospheric extension from 8-0 Ma accompanied uplift of DEI gneiss domes. Basin extension of 2.3-13.4 km in upper crust, while subsidence values indicate >21-24 km of lower crust extension since ~8 Ma. DEI domes formation involve vertical exhumation of buoyant lower crust, far-field extension from slab rollback, and inverted two-layer crustal density structure)

Franklin, S.P. & J.E. Livingston (1996)- Development of an infill well program to maximise economic return from the Iagafu- Hedinia Field: Part I. Integrated strauctural, stratigraphic and reservoir attribute modelling as input to reservoir simulation and well targeting. In: P.G. Buchanan (ed.) Petroleum exploration development and production in Papua New Guinea, Proc. 3rd PNG Petroleum Convention, Port Moresby, p. 573-589.
(Iagafu- Hedinia oil-gas field in Papuan Fold Belt with 31 MMBO recoverable reserves. Large thrust fault duplex structure, with detachment surfaces in Cretaceous Ieru Shale, causing discordance between structure at surface and basal Cretaceous Toro Sst reservoir level. Toro Sst main reservoir 100m thick, composed of four stacked parasequences of wave-dominated delta complex, separated by marine flooding surfaces)

Glen, R.A., E. Belousova & W.L. Griffin (2016)- Different styles of modern and ancient non-collisional orogens and implications for crustal growth: a Gondwanaland perspective. Canadian J. Earth Sci. 53, 11, p. 1372-1415.
(online at: http://www.nrcresearchpress.com/doi/pdf/10.1139/cjes-2015-0229)
(Review of 'accretionary orogens' of N and E Gondwana (convergent margin orogens without continental block collisions), including chapter on Papua New Guinea Orogen)

Griffin, T.J. (1983)- Granitoids of the Tertiary continent- island arc collision zone, Papua New Guinea. In: J.A. Roddick (ed.) Circum-Pacific plutonic terranes, Geol. Soc. America (GSA) Mem. 159, p. 61-76.
(Similar Tertiary I-type calkalkaline granitoids in 3 structural-tectonic zones of PNG: island arc, continental-orogenic and cratonic. Associated with volcanics and porphyry Cu-Au mineralization. Tied to partial melting at base of crust, possibly resulting from subduction, crustal thickening or crustal buckling)

Hammarstrom, J.M., D. Saroa, B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, B.J. Drenth, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 009pCu7203, Eastern Medial New Guinea magmatic belt- Papua New Guinea and Indonesia. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix O, p. 219-238.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in E part of late Miocene to Pliocene-Pleistocene Medial New Guinea magmatic belt)

Hammarstrom, J.M., D. Saroa, B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 009pCu7205, Maramuni Arc- Papua New Guinea. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix P, p. 239-250.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in M Miocene (~18-12 Ma) Maramuni magmatic arc in central part of PNG (S of Melanesian Arc terrane and N of Medial New Guinea magmatic belt), resulting from SW-dipping subduction of Solomon Sea Plate beneath E New Guinea. Known porphyry copper deposits include Frieda River (12 Ma). Yandera and Wafi-Golpu nearby but probably part of younger trend)

Hammarstrom, J.M., D. Saroa, B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 009pCu7208, Inner Melanesian Arc Terranes II-Northern New Guinea Island, Papua New Guinea. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix S, p. 268-274.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in Eocene-Oligocene- E Miocene accreted Inner Melanesian magmatic arc terranes along N margin of island of Papua New Guinea, (Bewani-Torricelli Mts, Finisterre-Adelbert Arc). May be related to S-ward subduction of Pacific Plate or Philippine Sea Plate, fragmented by strike-slip faulting since 25 Ma. Rocks age-equivalent to New Britain assemblage. No known deposits)

Hanani, A., P. Lennox & K. Hill (2016)- The geology and structural style of the Juha gas field, Papua New Guinea. In: Proc. 25th ASEG-PESA Int. Geophysical Conf. Exhib., Adelaide, p. 1-7.
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2016ab272)
(Juha gas-condensate field in25 km long/ up to 8 km wide anticlinal structure in SW Papuan foldbelt. Lower Cretaceous quartz sandstone reservoir buried by 1.5 km Cretaceous shale (regional seal), 1.5 km Miocene limestone and >1.6 km Pliocene-Pleistocene 'flysch' and 'molasse', before late Pliocene-Pleistocene uplift-erosion. Seismic indicates inverted basement faults beneath Juha, with detachment in Cretaceous mudstones, so overlying Miocene Limestone deforms partly independently. Deepest burial and gas-generation in Pliocene, before compressional deformation in Pleistocene. Part of ExxonMobil gas development)

Hill, K.C. (1991)- Timing of deformation and thermal history in Papua New Guinea: a review. Petroleum Expl. Soc. Australia (PESA) Journal 19, p. 62-67.
(Apatite fission track analysis of Fly Platform and S Papuan Fold Belt suggests widespread M Cretaceous volcanism and Late Cretaceous thermal maximum, probably related to rift-drift in Coral Sea. Most N and W samples reached thermal maximum during Pliocene deformation of Papuan foldbelt. Rapid uplift of basement-cored Muller Anticline in W Papuan Foldbelt and Kubor Anticline in E Papuan Fold Belt at 4.0 ± 0.5 Ma (Kubor thrusting continuing to present day. Cretaceous and Miocene granites NE of Kubor Anticline uplifted at 10- 5 Ma, part of ongoing shortening in C PNG over last 10 Ma, propagating to SW)

Hill, K.C., R.H. Wightman & L. Munro (2015)- Structural style in the Eastern Papuan Fold Belt, from wells, seismic, maps and modelling. In: Proc. Eastern Australian Basins Symposium (EABS), Petroleum Expl. Soc. Australia (PESA), p. 265-271.
(Similar to Hill et al. 2015)

Holm, R.J., S. Richards, C. Spandler & G. Rosenbaum (2013)- Tracking the Tasman Line in New Guinea: insights into the role of major structure at accretionary margins. Asia Oceania Geosc. Soc. (AOGS) 10th Ann. Meeting, Brisbane, SE26-A004. *(Abstract and Poster)*
(Tasman Line of E Australia is continental suture, separating E margin of Precambrian basement from W limit of Phanerozoic Tasmanides. Extension into New Guinea in W Papua New Guinea indicated by Quaternary magmatism (more intense volcanism in E, inherited zircons of Paleoproterozoic age (~1850 Ma) in W; Permian-Triassic (~250, 270 Ma) age peaks in E), morphological changes in axial ranges of New Guinea, dramatic displacement of Papuan ophiolite belt, etc. Important implications for understanding the occurrence of mineral deposits in region)

Holm, R.J., G. Rosenbaum & S.W. Richards (2016)- Post 8 Ma reconstruction of Papua New Guinea and Solomon Islands: Microplate tectonics in a convergent plate boundary setting. Earth-Science Reviews 156, p. 66-81.
(Since ~6 Ma crustal elements that comprise PNG and Solomon Islands began interacting with impending collision between Ontong Java Plateau and Australian continent, leading to regional microplate tectonics and escalation in tectonic complexity. Bismarck Sea initially formed as back-arc basin behind New Britain arc, but later modified during arc-continent collision. Ttc.)

Hopwood, B. (2013)- A regional study of the Toro and Imburu Formation aquifers in the Papuan Basin, Papua New Guinea. B.Sc. Hons. (Geology) Thesis, University of Adelaide, p. 1-119.
(online at: https://digital.library.adelaide.edu.au/dspace/bitstream/2440/105356/1/02whole.pdf)
(presentation at: https://digital.library.adelaide.edu.au/dspace/bitstream/2440/105356/2/03SuppMaterial.pdf)
(In Papuan foldbelt hydrocarbon distribution likely influenced by hydrodynamic bahavior in Toro and Imburu Fm reservoirs. E Cretaceous Toro Sst extensive hydrodynamic aquifer that likely flows NW to SE, from Lavani Valley Toro outcrop (recharge region) in Highlands, through to Kutubu Complex, potentially via Hides, (possibly Angore) and Mananda/SE Mananda Fields)

Keenan, S.E. & K.C. Hill (2015)- The Mananda Anticline, Papua New Guinea: a third oil discovery, appraisal programme and deep potential. Proc. Eastern Australian Basins Symposium (EABS), Petroleum Expl. Soc. Australia (PESA), p. 297-306.
(Same as Keenan and Hill 2015, above)

Kivior, I., S. Markham & L. Mellon (2015)- Mapping sub-surface geology from magnetic data in the Hides Area, Western Papuan Fold Belt, Papua New Guinea. Proc. Eastern Australian Basins Symposium (EABS), Petroleum Expl. Soc. Australia (PESA), p. 307-319.
(Structure interpretation of magnetic data in area of Hides and Karius gas fields, PNG foldbelt, consistent with structures mapped from seismic and well data)

Kivior, I., S. Markham & L. Mellon (2016)- Mapping sub-surface geology from magnetic data in the Hides Area, Western Papuan Fold Belt, Papua New Guinea. AAPG/SEG Int. Conf. Exhib., Melbourne 2015, Search and Discovery Article 30438, 14p.
(online at: www.searchanddiscovery.com/pdfz/documents/2016/30438kivior/ndx_kivior.pdf.html)
(Same as Kivior et al. 2015))

Kloppenburg, A. & K.C. Hill (2015)- The Gobe Field, PNG: influence of basement architecture on fold and thrust belt structural style. In: Proc. Eastern Australian Basins Symposium (EABS), Petroleum Expl. Soc. Australia (PESA), p. 273-279.
(25 km long sinuous Gobe Anticline in SE Papuan Fold Belt three structural compartments, believed to be in part controlled by E Jurassic rift architecture in Permo-Triassic basement. Main oil gas reservoir U Jurassic Iagifu Sst. Overlying 1 km thick Cretaceous mudstone detached reservoir sequence from overlying 1 km thick Miocene limestone that formed Pliocene- Recent thin-skinned structures at the surface. Nearby basement-cored Iehi Anticline. Gobe Anticline resulted from interplay of two conjugate contractional fault sets)

Large, S.J. E., A. von Quadt, J.F. Wotzlaw, M. Guillong & C.A. Heinrich (2018)- Magma evolution leading to porphyry Au-Cu mineralization at the Ok Tedi deposit, Papua New Guinea: trace element geochemistry and high-precision geochronology of igneous zircon. Economic Geology 113, 1, p. 39-61.
(Ok Tedi is Earth's youngest giant porphyry-skarn deposit. Zircons with inherited older cores in all intrusions. Inherited zircon populations and Hf isotopes of Pleistocene zircons record Proterozoic basement assimilation. Crystallization ages extend over 212 ± 44 k.y.. Youngest zircons in each intrusion reflect emplacement age and suggest three pulses separated by ~160 k.y. Injection of more mafic magma into magma reservoir preceded emplacement of Fubilan porphyry at ~1.19 Ma and may be trigger for Au-Cu mineralization)

Li, W.G, C.Y Fu, Z.Y. Yao, D. Xin, Z.L. Ge, X.X. Song & T.G. Wang (2014)- Tectonic settings, genetic types and main metallogenic features of copper-gold deposits in Papua New Guinea. Regional Geology of China 2014, Z1, p. 270-282.

Lindley, I.D. (2016)- Epithermal and arc-related layered mafic platinum-group element mineralisation in the mafic-ultramafic rocks of eastern Papua. Australian J. Earth Sci. 63, 4, p. 393-411.
(Platinum-group element mineralisation in mafic-ultramafic rocks of E PNG)

Mahoney, L., K. Hill, S. McLaren, A. Hanani (2017)- Complex fold and thrust belt structural styles: examples from the Greater Juha area of the Papuan Fold and Thrust Belt, Papua New Guinea. J. Structural Geol. 100, p. 98-119.
(Greater Juha area in Eastern Muller Ranges of Papuan Fold Belt in PNG with evidence of major inversion, detachment and triangle zone faults. Exposed Cenozoic Darai Lst shows ~13-21% shortening, yet structures elevated up to 7 km above regional, suggesting inversion of pre-existing rift architecture. Pervasive arc-normal oriented structures related to weakened Paleozoic basement cross-structures that affected E Mesozoic rifting)

Mason, D.R. (1978)- Compositional variations in ferromagnesian minerals from porphyry copper-generating and barren intrusions of the western highlands, Papua New Guinea. Economic Geology 73, 5, p. 878-890.
(On amphiboles and biotites from porphyry copper-generating and barren intrusions in W Highlands, PNG)

McInerney, P., A. Goldberg & D. Holland (2007)- Using airborne gravity data to better define the 3D limestone distribution at the Bwata Gas Field, Papua New Guinea. Proc. 19th Geophysical Conf. Australian Soc. Expl. Geoph. (ASEG 2007), Perth, 6p.
(Bwata gas-condensate field in E Papua Basin is 1960 discovery on structural high of fractured Miocene Puri Limestone, with 157 m of gas pay. Geologic model constrained with new airborne potential field data, new seismic and data from nearby Triceratops-1 well, increasing gas in place resource to 762 BCF)

McWalter, M. (2017)- Why has Papua New Guinea been successful in producing oil and gas? In: SE Asia Petroleum Expl. Soc. (SEAPEX) Exploration Conf. 2017, Singapore, Session 6, 24p. *(Abstract + Presentation)*

Miller, S.R., S.L. Baldwin & P.G. Fitzgerald (2012)-Transient fluvial incision and active surface uplift in the Woodlark Rift of eastern Papua New Guinea. Lithosphere 4, 2, p. 131-149.
(online at: https://gsw.silverchair-cdn.com/gsw/Content_public/Journal/lithosphere/4/2/10.1130_L135.1/2/)
(Rapid extension led to formation of metamorphic core complexes ahead of W-ward-propagating Woodlark basin spreading center. Stream profiles on D'Entrecasteaux Islands and E PNG show prominent knickpoints, likely formed from transient Quaternary stream erosion due to increase in uplift rate)

Munro, L., K.C. Hill & R.H. Wightman (2015)- Construction of 2D and 3D models of the Kutubu Oilfield, Papua New Guinea fold belt. In: Proc. Eastern Australian Basins Symposium (EABS), Petroleum Expl. Soc. Australia (PESA), p. 281-287.
(Kutubu Field in mountains of PNG comprises Hedinia Anticline (mainly gas) and oil-bearing Iagifu Anticline. Produced >300MMBBL oil from basal Cretaceous Toro Sst reservoir, overlain by 1 km of Cretaceous shale and 1 km of karstic Miocene limestone)

Nakamori, T., S. Matsuda, A. Omura & Y. Ota (1995)- Depositional environments of the Pleistocene reef limestones at Huon Peninsula, Papua New Guinea, on the basis of hermatypic coral assemblages. J. Geography (Chigaku Zasshi) 104, 5, p. 725-742. *(mainly in Japanese)*
(online at: https://www.jstage.jst.go.jp/article/jgeography1889/104/5/104_5_725/_pdf)

Nelson, A. & B. Turner (2015)- Lateral velocity variations in the Darai Limestone, Papua New Guinea foreland. In: Proc. 24th ASEG-PESA Int. Geophysical Conf. Exhib., Perth, p. 1-4.
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2015ab245)
(Significant lateral velocity variation across >1km thick Late Oligocene-Miocene Darai Limestone, due to alteration, including dolomitisation. Most alteration associated with small-scale faulting)

Noku, S.K., H. Matsueda, M. Akasaka & J.O. Espi (2009)- The Laloki massive sulfide strata-bound deposit, Papua New Guinea: geology, mineralogy and geochemistry. In Proc. 10th Biennial Mtg. Soc. Geology Applied to Mineral Deposits (SGA), Townsville, p. 731-733.
(Laloki massice Au-Ag sulfide deposit in Astrolabe Field, 20km E of Port Moresby, SE PNG. Stratigraphically hosted by Paleo-Eocene mudstone and grey cherts. Early massive sulfide stage and late stage remobilization and brecciation. Temperatures of early and late stage mineralization range 309-498° C and 266-338° C).

Page, R.W. & R.W. Johnson (1974)- Strontium isotope ratios of Quaternary volcanic rocks from Papua New Guinea. Lithos 7, 2, p. 91-100.
(also as BMR Record 1973/91 at: https://d28rz98at9flks.cloudfront.net/12915/Rec1973_091.pdf)
(Sr isotope data for Quaternary volcanic rocks from six areas in PNG suggest two broad groups: (1) island volcanoes with lower Sr37/Sr38 ratios (0.7034–0.7043), probably from relatively homogeneous upper mantle source regions; (2) PNG mainland volcanoes with higher and wider range of Sr37/Sr36 ratios, probably affected by sialic crustal contamination, or derived from heterogeneous sources in upper mantle)

Pain, C.F. & R.J. Blong (1976)- Late Quaternary tephras around Mt. Hagen and Mt. Giluwe, Papua New Guinea. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier, Amsterdam, p. 239-251.

Peterson, E.C. & J.A. Mavrogenes (2014)- Linking high-grade gold mineralization to earthquake-induced fault-valve processes in the Porgera gold deposit, Papua New Guinea. Geology 42, 5, p. 383-386.

Power-Fardy, D., R.M.D. Meares, A.R., Collins & P.T. Goldner (1990)- Platinum group element mineralisation in Papua New Guinea. In F. E. Hughes (ed.) Geology of the mineral deposits of Australia and Papua New Guinea, Monograph 14, Australasian Inst. Mining Metallurgy, Melbourne, p. 1703-1705.

Richards, J.P. (1990)- The Porgera gold deposit, Papua New Guinea: geology, geochemistry and geochronology. Ph.D. Thesis Australian National University, Canberra, p. 1-113.
(online at: https://openresearch-repository.anu.edu.au/handle/1885/12535)
(Porgera gold deposit in highlands of PNG associated with Porgera Intrusive Complex, hosted in Jurassic-Cretaceous shelf sediments. K-Ar dating of igneous biotite, and Ar/Ar dating of hornblende suggest age of emplacement of PIC 6.0 ± 0.3 Ma)

Richards, J.P., B.W. Chappell & M.T. McCulloch (1991)- The Porgera gold deposit, Papua New Guinea, 1: Association with alkalic magmatism in a continent-island-arc collision zone. Brazil Gold '91 Conf., p. 307-312.
(online at: www.iaea.org/inis/collection/NCLCollectionStore/_Public/24/058/24058940.pdf)
(Mesothermal- epithermal Porgera gold deposit associated with shallow level (< 2 km emplacement depth) stocks and dykes of Porgera Intrusive Complex, emplaced at 6.0 ± 0 3 Ma near NE edge of Australian craton, during period of Late Tertiary terrane accretion. Magmatism may have been related to deep subduction beneath continental margin. Gold mineralization immediately followed emplacement of PIC at 5-6Ma. Porgera intrusive suite sodic alkali basalts/gabbros, hawaiites, and mugearites)

Rinne, M.L. (2015)- Geology, alteration, and mineralisation of the Golpu porphyry and Wafi epithermal deposit, Morobe Province, Papua New Guinea. Ph.D. Thesis University of Tasmania, p. 1-255.
(online at: https://eprints.utas.edu.au/22758/1/whole_Rinne_thesis.pdf)
(Wafi-Golpu gold district in Mesozoic metasediments of Owen Stanley Range of New Guinea Orogen, Morobe Province of PNG, ~65km WSW of Lae, and NW of Morobe Goldfield. Cu-Au mineralization ant ~8.67 Ma tied to Golpu diorite, which post-dates Maramumi Arc magmatism (17-12 Ma; with Frieda, Nena porphyries). Golpu probably part of W-ward younging belt of porphyry generation that also includes Porgera, Star and Ok Tedi. Uplift and exhumation during life of porphyry driven by low-angle subduction of Solomon Sea Plate, resulting in shift from porphyry to epithermal activity over period of 0.25-0.40 Myrs)

Rinne, M.L., D.R. Cooke, A.C. Harris, D.J. Finn, C.M. Allen, M.T. Heizler & R.A. Creaser (2018)- Geology and geochronology of the Golpu porphyry and Wafi epithermal deposit, Morobe Province, Papua New Guinea. Economic Geology 113, 1, p. 271-294.
(Wafi-Golpu district of PNG contains epithermal veins and alteration that overprinted giant, high-grade Golpu porphyry Cu-Au deposit around Golpu diorite. Most porphyry mineralization between ~8.76- 8.73 Ma. Time between main Golpu porphyry mineralization to last stage of Wafi epithermal veins ~120-220 k.y.)

Schneider, L., B.V. Alloway, R.J. Blong, G.S. Hope, S.J. Fallon, C.F. Pain, W.A. Maher & S.G. Haberle (2017)- Stratigraphy, age and correlation of two widespread Late Holocene tephras preserved within Lake Kutubu, Southern Highlands Province, Papua New Guinea. J. Quaternary Science 32, 6, p. 782-794.
(Sediment cores from Lake Kutubu, S Highlands, PNG, with two prominent tephra layers, correlated with Tibito and Olgaboli tephras described nearby. Tibito tephra possibly from Long Island; Olgaboli tephra possibly from Karkar Island source)

Smith, I.E.M. (1977)- Peralkaline rhyolites from the D'Entrecasteaux islands, Papua New Guinea. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier, Amsterdam, p. 275-285.
(Mildly peralkaline rhyolites (comendites) most abundant lavas in Quaternary volcanic province centered around Dawson Strait in D'Entrecasteaux islands, E PNG, associated with minor basaltic rocks. Tied to crustal extension and rifting)

Smith, I.E.M. (2014)- High-magnesium andesites: the example of the Papuan volcanic arc. In: A. Gomez-Tuena et al. (eds.) Orogenic Andesites and crustal growth, Geol. Soc., London, Spec. Publ. 385, p. 117-135.
(Late Cenozoic volcanic arc in SE PNG developed in environment of complex tectonic processes including obduction, subduction, rifting and sea floor spreading. Volcanic arc extends from Papuan Peninsula SE-ward through D'Entrecasteaux Islands into Louisiade Archipelago. Mainly basaltic andesite and andesite, but also basalt, dacite and rhyolite. Unusual abundance of high-Mg lavas in SE Papua related to extensional tectonics which allowed deep sourced magmas to rise without significant modification)

Smith, I.E.M. & C.J. Simpson (1972)- Late Cenozoic uplift in the Milne Bay area, eastern Papua New Guinea. Bureau Mineral Res. Geol. Geoph., Bull. 125, p. 29-35.
(online at: https://d28rz98at9flks.cloudfront.net/125/Bull_125.pdf)
(Uplifted Late Plio- E Pleistoce erosional surface(s) up to 185m asl on Miocene- Pliocene volcanic rocks along Milne Bay on SE tip of PNG main island. Nearby uplifted coral reefs at >500m above sea level)

Smith, I.E.M., S.R. Taylor & R.W. Johnson (1979)- REE-fractionated trachytes and dacites from Papua New Guinea and their relationship to andesite petrogenesis. Contrib. Mineralogy Petrology 69, p. 227-233.

Spooner, M.I. & R.I. McCarthy (2018)- Structural and reservoir development of the Western Papuan Basin gas and condensate fields. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, p. 1-8. *(Extended Abstract)*
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2018abT4_3A)
(Stanley, Elevala, Ketu and Ubuntu gas-condensate fields in foreland of W Papuan Basin. Basement architecture and regional NW-trending 3KB fault system control trap and Late Jurassic- E Cretaceous reservoir development (inversion of pre-existing faults and compactional drape of reservoirs over Basement highs). Map of spatial distribution of reservoir sands and paleogeographic models)

Swift, M. (2012)- Torres Basin: a new Mesozoic petroleum system in Papua New Guinea. In: Proc. Eastern Australian Basins Symposium IV, Petroleum Expl. Soc. Australia (PESA), Brisbane, 34, p. 1-14.
(New basin name proposed for area offshore SE tip of PNG Eastern peninsula, N of Coral Sea oceanic basin. Part of Papuan Plateau that rifted from Queensland Plateau during Late Cretaceous- E Paleogene opening of Coral Sea)

Swift, M. & H. Davies (2015)- Extensional and contractional tectonics in southeastern Papua New Guinea. In: Proc. Eastern Australian Basins Symposium (EABS), Petroleum Expl. Soc. Australia (PESA), p. 231-236.

(Papuan Peninsula formed by collision and convergent tectonism in Late Miocene-Pliocene, but subsequently dominated by extensional tectonics. In SE part of Peninsula compressional structures on S side, extensional tectonics in center and north)

Tobin, J., S. Zahirovic, R. Hassan & P. Rey (2018)- Tectonic and geodynamic evolution of the Northern Australian margin and New Guinea. Proc. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts, 1, p. 1-7. *(Extended Abstract)*
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2018abT5_4A)
(Modeling of Cenozoic evolution of New Guinea, collision of Sepik terrane at 50 or 30 Ma, and dynamic subsidence related to downgoing Sepik slab now under C Australia)

Wacaster, S. (2015)- The mineral industry of Papua New Guinea. In: 2013 Minerals Yearbook, Indonesia, U.S. Geol. Survey, p. 22.1-22.7.
(online at: https://minerals.usgs.gov/minerals/pubs/country/2013/myb3-2013-pp.pdf)
(Listing of 2013 mineral production in PNG, No geology)

Warburton, J., J. Iwanec, J. Lamb, D. Waples & K. Wulff (2017)- Potential for future petroleum resource growth in PNG. In: Proc. SE Asia Petroleum Expl. Soc. (SEAPEX) Exploration Conf. 2017, Singapore, Session 6, p.1-24. *(Abstract + Presentation)*
(Oil Search 2015 assessment determined ~4.8 GBOE recoverable resources discovered in PNG to date (85% gas). Additional 7 GBOE still to be discovered (40 TCF gas + 550 MMbarrels). In parts of interior PNG petroleum generated in Late Cretaceous, predating foldbelt. In other areas petroleum generated during Mio-Pliocene foldbelt formation near present-day mountain front where it continues to be generated today)

Weiler, P.D. (1999)- Paleomagnetic study of an active arc-continent collision, Finisterre Arc Terrane, Papua New Guinea. Ph.D. Thesis University of California, Santa Cruz, p. 1-183.
(Larger scale paleomagnetic results from colliding Finisterre Arc: hemipelagic rocks indicate CW rotation of colliding terrane of ~40° in post-Miocene time. Decreasing paleomagnetic declination anomalies along strike in Finisterre Terrane, suggesting rotation results from rigid-body rotation of FT rather than sequential docking of colliding blocks)

Zhang, J., J.P. Davidson, M.C.S. Humphreys, C.G. Macpherson & I. Neill (2015)- Magmatic enclaves and andesitic lavas from Mt. Lamington, Papua New Guinea: implications for recycling of earlier-fractionated minerals through magma recharge. J. Petrology 56, 11, p. 2223-2256.
(online at: http://petrology.oxfordjournals.org/content/56/11/2223.full.pdf+html)
(Mt. Lamington composite volcano in PNG, on Papuan Ultramafic Belt (PUB) ophiolite. 1951 eruption produced andesitic dome lavas with basaltic–andesitic enclaves and few PUB ultramafic xenoliths. Presence of olivines in enclaves represents recycling of earlier-fractionated components through magma recharge)

IX.12. Papua New Guinea (Bismarck Sea, Solomon Sea, Woodlark Basin) (66)

Abers, G.A. (1991)- Possible seismogenic shallow-dipping normal faults in the Woodlark-D'Entrecasteaux extensional province, PNG. Geology 19, p. 1205-1208.
(Inversions of large earthquakes in Woodlark-D'Entrecasteaux region of active continental extension show events consistent with normal dip slip on shallow-dipping faults. Largest earthquake near mapped Pliocene-Quaternary metamorphic core complex, with shallow-dipping plane between 10°-25°)

Abers, G.A. (2001)- Evidence for seismogenic normal faults at shallow dips in continental rifts. In: R.C.L. Wilson et al. (eds.) Non-volcanic rifting of continental margins: a comparison of evidence from land and sea, Geol. Soc. London, Spec. Publ. 187, p. 305-318.
(Woodlark Rift system extension rates vary along strike, with shallowest-dipping faults in most rapidly rifting segment. Several earthquakes suggest nodal planes dipping 23-35°, subparallel to shear zones bounding nearby metamorphic core complexes. No documented large earthquake exhibits seismic slip on subhorizontal surfaces)

Beier, C., W. Bach, S. Turner, D. Niedermeier, J. Woodhead, J. Erzinger & S. Krumm (2015)- Origin of silicic magmas at spreading centres- an example from the South East rift, Manus Basin. J. Petrology 56, 2, p. 255-272.
(online at: http://petrology.oxfordjournals.org/content/56/2/255.full.pdf+html)
(Manus Basin is rapidly opening, magmatically active back-arc basin associated with N-ward subduction of Solomon Sea Plate. Samples from 40 km segment of SE Rift span compositional continuum from basalt to rhyolite (50-75 wt % SiO2). Data form a coherent array suggestive of closed-system fractional crystallization, and point to rapid evolution in relatively small magma lenses located near base of thick oceanic crust)

Belford, D.J. (1988)- Late Tertiary and Quaternary foraminifera and paleobathymetry of dredge and core samples from the New Ireland Basin (Cruise L7-84-SP). In: M.S. Marlow et al. (eds.) Geology and offshore resources of Pacific island arcs- New Ireland and Manus region, Papua New Guinea, Circum-Pacific Council Energy and Mineral Resources, Houston, Earth Sci. Ser. 9, p. 65-89.
(Late Miocene (N17)- Recent foraminifera in seafloor samples N of New Ireland, New Hanover, Manus islands)

Blackwell, J.L. (2010) Characteristics and origins of breccias in a volcanic hosted alkalic epithermal gold deposit, Ladolam, Lihir Island, Papua New Guinea. Ph.D. Thesis, University of Tasmania, Hobart, p. 1-203.
(online at: http://eprints.utas.edu.au/11395/)

Blackwell, J.L., D.R. Cooke, J. McPhie & K.A. Simpson (2014)- Lithofacies associations and evolution of the volcanic host succession to the Minifie Ore Zone: Ladolam gold deposit, Lihir Island, Papua New Guinea. Economic Geology 109, p. 1137-1160.
(Ladolam gold deposit largest alkalic epithermal gold deposit in world. Four ore zones. Minifie ore zone three stages: (1) Plio-Pleistocene volcanosedimentary strata (part of alkalic composite volcanic island), (2) porphyry-style breccia dike, and (3) epithermal-style breccias. Quaternary uplift)

Bolton, B.R. & N.F. Exon (1988)- Geochemistry of bathyal ferromanganese deposits from the New Ireland region in the Southwest Pacific Ocean. In: M.S. Marlow et al. (eds.) Geology and offshore resources of Pacific island arcs- New Ireland and Manus region, Papua New Guinea, Circum-Pacific Council Energy and Mineral Resources, Houston, Earth Science Ser. 9, p. 131-136.
(Six samples with ferromanganese crusts dredged from seafloor at depths of 800-1500m around New Britain. Rel. low Co values)

Bruns, T.R., J.G. Vedder & A.K. Cooper (1989)- Geology of the Shortland Basin region, Central Solomons Trough, Solomon Islands- review and new findings. In: J.G. Vedder & T.R. Bruns (eds.) Geology and offshore resources of Pacific island arc- Solomon Islands and Bougainville, Papua New Guinea regions, Circum-Pacific Council Energy and Mineral Resources, Houston, Earth Science Series 12, p. 125-144.
(Basement half graben underlies the center of Shortland basin; developed in Late Oligocene and E Miocene, coincident with arrival of the Ontong Java Plateau at Tertiary subduction zone. Max. sediment thickness 7 km)

Clark, G.H. (1987)- Geology and resource estimation at the Panguna porphyry copper/gold mine, Papua New Guinea. Proc. Pacific Rim Congress 87, Australasian Inst. of Mining and Metallurgy (AusIMM), Melbourne, p. 549-556.

Clark, G.H. (1990)- Panguna copper-gold deposit. I: F.E. Hughes (ed.) Geology of the mineral deposits of Australia and Papua New Guinea, vol. 2, Australasian Inst. of Mining and Metallurgy (AusIMM), Melbourne, Monogr. 14, p. 1807-1816.

Denham, D. (1971)- Seismicity and tectonics of New Guinea and the Solomon Islands. Royal Soc. New Zealand Bull. 19, p. 31-38.

Eastoe, C.J. (1978)- A fluid inclusions study at the Panguna porphyry copper deposit, Bougainville, Papua New Guinea. Economic Geology 73, p. 721-748.

Eastoe, C.J. (1979)- The formation of the Panguna porphyry copper deposit, Bougainville, Papua New Guinea: with an appendix on the Frieda porphyry copper prospect, New Guinea. Ph.D. Thesis, University of Tasmania, Hobart, p. 1-255.
(online at: http://eprints.utas.edu.au/11544/)
(Panguna copper-gold deposit of Bougainville, NW of Solomon Islands, formed at S contact between Pliocene Kaverong Quartz Diorite and Panguna Andesite (3-5 Ma). Depth of formation near 3 km)

Hammarstrom, J.M., D. Saroa, B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 009pCu7209, Inner Melanesian Arc-New Britain, Papua New Guinea. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix T, p. 275-286.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of porphyry copper deposits in Late Eocene - E Miocene Inner Melanesian Arc on New Britain Island, part of 1000km-long calc-alkaline Inner Melanesian Arc that developed from SW-ward subduction of Pacific Plate along New Britain Trench. Porphyry and high-sulfidation epithermal systems formed during plate reorganization at ~24-25 Ma, when New Britain was at intersection of S Caroline and Melanesian Arcs (Uasilau-Yau Yau intrusive complex, Pleysumi (24.5 Ma), Kulu (22.6 Ma), Esis, Simuku, Sinivit, Andewa, etc))

Hammarstrom, J.M., D. Saroa, B.T. Setiabudi, D.N. Sunuhadi, G.R. Robinson, C.L. Dicken, S. Ludington, A.A. Bookstrom & M.L. Zientek (2013)- Porphyry copper assessment for Tract 009pCu7207, Outer Melanesian Arc I- Papua New Guinea. In: J.M. Hammarstrom et al., Porphyry copper assessment of Southeast Asia and Melanesia, U.S. Geol. Survey, Scient. Invest. Rept. 2010-5090-D, Appendix U, p. 287-302.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Assessment of Eocene and younger porphyry copper deposits in Outer Melanesian Arc (Manus, New Ireland, Bougainvolle, Bismarck Archipelago ((Tabar, Lihir, Tanga and Feni Islands). Arc is N extension of Solomon Arc, tied to SW subduction of Pacific Plate. Manus (Arie deposit) and New Ireland with E-M Miocene porphyry copper prospects. Bougainville hosts Pliocene porphyry copper deposits (Panguna; 3.4 Ma; closed 1989))

Haschke, M. & Z. Ben-Avraham (2005)- Adakites from collision-modified lithosphere. Geophysical Research Letters 32, 15, L15302, p. 1-4.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2005GL023468/pdf)
(Quaternary hornblende-bearing dacites and trachytes from Lusancay Islands and Aird Hills (~150 km N of Woodlark Rift, SE of PNG) show adakitic geochemical signatures. Adakites may be linked to rifting of collision-modified lithosphere)

Hoffmann, G.D. (2010)- Tectonic processes and submarine flows in the Bismarck Volcanic Arc, Papua New Guinea. Ph.D. Thesis, University of California, Santa Cruz, p. 1-264.
(online at: https://media.proquest.com/media/pq/classic/doc/2142289031/)
(Study of four fields of undulating sediments from sidescan and multibeam sonar imagery in Bismarck Sea, N of NewBritain island)

Hoffmann, G., E. Silver, S. Day, N. Driscoll & D. Orange (2011)- Deformation versus deposition of sediment waves in the Bismarck Sea, Papua New Guinea. In: R.C. Shipp et al. (eds.) Mass-transport deposits in deepwater settings, Soc. Sedimentary Geology (SEPM) Spec. Publ. 96, p. 455-474.
(Four fields of undulating sediment in Bismarck volcanic arc N of New Britain island associated with downslope scour features and other evidence of turbidity-current activity, probably formed by combination of extensional deformation and repeated turbidity currents)

Holm, R.J., C. Spandler & S.W. Richards (2013)- Adakitic magmatism during subduction cessation: Melanesian arc far-field response to arrival of the Ontong Java Plateau. Proc. SSGMP 2013, Mission Beach, QLD, p. *(Poster presentation)*
(Melanesian Arc Baining Volcanics (43-37 Ma; M-L Eocene) and Kupluk Volcanics (32-27 Ma; E Oligocene) represent 'normal' island arc volcanicsm that forms New Britain Basement. Collision of Ontong Java Plateau with Solomon Islands at 26 Ma ended subduction and led to post-collision adakitic Simuku Porphyry Complex (24-20 Ma; E Miocene). Origin of adakites probably from melting of subducted slab)

Jaques, A.L. & A.W. Webb (1975)-, Geochronology of porphyry copper intrusives from Manus Island, Papua New Guinea. Geol. Survey Papua New Guinea, Report 75/5, 10p.
(Incl. Arie porphyry copper deposit, ~15 Ma, Mount Kren prosect, ~14 Ma)

Jakes, P. & A.J.R. White (1969)- Structure of the Melanesian arcs and correlation with distribution of magma types. Tectonophysics 8, 3, p. 223-236.
(Chemical data on Cenozoic lavas from Melanesia indicate zonal arrangement in New Guinea-New Britain arc: (1) tholeiitic on ocean side of New Guinea (Manam, Karkar), and N of New Britain; (2) calc-alkaline on East Papuan coast (Mt. Lamington, Mt. Victory); (3) shoshonitic association of New Guinea highlands (Mt. Hagen, Mt. Giluwe) and East Papua. Zonation not distinct in Solomon Island Arc. Lavas of the New Georgia Group tholeiiticand calc-alkaline affinities; rocks from Bougainville and Guadalcanal calc-alkaline)

Johnson, R.W. & R.J. Arculus (1978)- Volcanic rocks of the Witu Islands, Papua New Guinea: the origin of magmas above the deepest part of the New Britain Benioff zone. Bull. Volcanologique 41, 4, p. 609-655.
(Witu Islands are Quaternary volcanoes overlie deepest (~300-580 km) part of New Britain Benioff zone. Rocks are olivine- and quartz-normative tholeiitic basalts, low- and high-SiO2 andesites, dacites and rhyolites. Alkaline rocks that overlie deep (>300 km) parts of other Benioff zones not found in Witu Islands)

Johnson, R.W., J.C. Mutter & R.J. Arculus (1979)- Origin of the Willaumez-Manus Rise, Papua New Guinea. Earth Planetary Sci. Letters 44, p. 247-260.
(Asymmetrical rise, 450 km long, on Bismarck Sea floor between Manus Island and Willaumez Peninsula on N-C coast of New Britain. Separates Manus Basin from New Guinea Basin. Rise may be result of excess magmatism possibly related to inferred mantle hot spot beneath St. Andrew Strait)

Johnson, R.W., M.R. Perfit, B.W. Chappell, A.L. Jaques, R.D. Shuster & W.I. Ridley (1988)- Volcanism in the New Ireland Basin and Manus Island region: notes on the geochemistry and petrology of some dredged volcanic rocks from a rifted-arc region. In: M.S. Marlow et al. (eds.) Geology and offshore resources of Pacific island arcs- New Ireland and Manus region, Papua New Guinea, Circum-Pacific Council Energy and Mineral Resources, Houston, Earth Science Ser. 9, p. 113-130.
(Volcanic rocks dredged from Manus- New Ireland rifted arc system high compositional diversity)

Johnson, R.W., D.A. Wallace and D.J. Ellis (1976)- Feldspathoid-bearing potassic rocks and associated types from volcanic islands off the coast of New Ireland, Papua New Guinea: a preliminary account of geology and petrology. In: R.W. Johnson (ed.) Volcanism in Australasia, Elsevier Scient. Publ. Co., Amsterdam, p. 297-316.
(M Miocene- Pleistocene volcanic rocks of Tabar, Lihir, Tanga and Feni islands wide range of compositions)

Joshima, M. & E. Honza (1986)- Age estimation of the Solomon Sea based on heat flow data. Geo-Marine Letters 6, 4, p. 211-217.

(Heatflow average of 87 mW/m2 (2.08 HFU) indicates age of Solomon Sea Basin ranges from 24-44 Ma. Supported by water depth of ~4500m)

Kamenov, G.D. (2004)- Magmatism and ore deposit formation in SW Pacific islands. Ph.D. Thesis University of Florida, Miami, p. 1-138.
(online at: http://ufdc.ufl.edu/UFE0008250/00001/pdf)
(Model of ore formation and magmatism in Tabar-LihirTanga-Feni island arc: injection of volatile-rich magma into evolving magma body near surface is triggering event that results in ore mineralization. Subducted oceanic slabs control composition of island-arc magmas. Once contribution from subducting slab decreases, incorporation of mantle component with Indian affinity in isotopic composition of lavas)

Kamenov, G.D., M.R. Perfit, P.A. Mueller & I.R. Jonasson (2008)- Controls on magmatism in an island arc environment: study of lavas and sub-arc xenoliths from the Tabar-Lihir-Tanga-Feni island chain, Papua New Guinea. Contrib. Mineralogy Petrology 155, p. 635-656.
(TLTF islands with mainly high-K alkaline and silica-undersaturated alkaline rocks with geochemical features typical of subduction-related magmatism. Sedimentary, mafic and ultramafic xenoliths from Tubaf seamount show underlying crust composed of sediments and oceanic crust of Pacific affinity)

Kennedy, A.K., S.R. Hart & F.A. Frey (1990)- Composition and isotopic constraints on the petrogenesis of alkaline arc lavas; Lihir Island, Papua New Guinea. J. Geophysical Research 95, B5, p. 6929-6942.
(SiO2-undersaturated lavas from Lihir island, like most arc lavas, enriched in Sr, Ba, K, Rb and Cs and depleted in Hf, Ta, Nb and Ti relative to oceanic basalts, but not product of present-day subduction. Alkaline lavas reflect generation, in tensional tectonic environment, from 'fossil' arc mantle region enriched in alkali and alkaline earth elements during two earlier subduction episodes)

Lackschewitz, K.S., D.F. Mertz, , C.W. Devey & C.D. Garbe-Schonberg (2003)- Late Cenozoic volcanism in the western Woodlark Basin area, SW Pacific: the sources of marine volcanic ash layers based on their elemental and Sr-Nd isotope compositions. Bull. Volcanology 65, p. 182-200.
(Tephra fallout layers and volcaniclastics from volcanic sources around/ on Papuan Peninsula form substantial part of Plio-Pleistocene Woodlark Basin marine sediment. Mainly rhyolitic compositions, with subordinate basaltic andesites, etc. Volcanogenic layers indicate much calc-alkaline rhyolitic volcanism in E Papua since 3.8 Ma, but at 135 ka peralkaline tephras appear, reflecting change from crustal subduction to spreading)

Lindley, I.D. (1998)- Mount Sinivit Gold deposits. In: D.A. Berkman & D.H. Mackenzie (eds.) Geology of Australian and Papua New Guinean mineral deposits, Australasian Inst. Mining Metallurgy (AusIMM), Melbourne, Monogr. 22, p. 821-826.
(Porphyry copper-gold and epithermal gold mineralization on Gazella Peninsula, E New Britain, associated with Late Oligocene- E Miocene igneous activity. Mt Sinivit veins with chalcopyrite, pyrite, bornite, etc.. K-Ar age of sericitic wallrock alteration indicate formation at 22-23 Ma)

Lindley, I.D. (2006)- New Britain Trench, Papua New Guinea: an extensional element in a regional sinistral strike-slip system. New concepts in global tectonics Newsletter 41, p. 15-27.
(New Britain Trench SE of New Britain island often viewd as subduction trench, but here reinterpreted as extensional jog-like element of left-stepping sinistral strike-slip zone that extends from Solomon Islands through to W New Guinea)

Lindley, I.D. (2015)- Late Quaternary geology of Ambitle Volcano, Feni Island Group, Papua New Guinea. Australian J. Earth Sci. 62, 5, p. 529-545.
(Ambitle Volcano part of Pliocene-Pleistocene Tabar-Lihir-Tanga-Feni (TLTF) alkalic volcanic province in New Ireland Basin. Volcano rises 2500m above surrounding sea floor, with elevation up to 479 m above sea level. Volcanic deposits rest unconformably on Oligocene basement rocks of New Ireland Basin)

Lindley, I.D. (2016)- Volcanological study of the middle Miocene Okiduse Volcanic Group, Woodlark Island (Muyuw), eastern Papua. Australian J. Earth Sci. 63, 6, p. 731-754.

(Woodlark Island (Muyuw) rifting started in Late Miocene (8.8-6 Ma), associated with W-ward-propagating Woodlark Basin seafloor spreading centre. Island underlain by M Miocene calc-alkaline to shoshonitic Okiduse Volcanic Gp., with two major M Miocene volcanic centres (14-12 Ma))

Lindley, I.D. (2016)- Plate flexure and volcanism: Late Cenozoic tectonics of the Tabar-Lihir-Tanga-Feni alkalic province, New Ireland Basin, Papua New Guinea. Tectonophysics 677, p. 312-323.
(Pliocene-Pleistocene Tabar-Lihir-Tanga-Feni (TLTF) alkaline volcanism, New Ireland Basin, associated with extensional cracks along crests of flexed ridges developed on New Ireland Microplate. The tectonic alignment of the TLTF volcanic arc perpendicular to flexed ridges, suggesting fractures parallel to direction of compression facilitated rapid ascent of alkaline magmas from mantle, perhaps 60-70 km depth)

Ma, Y., Z. Zeng, S. Chen, X. Yin & X. Wang (2017)- Origin of the volcanic rocks erupted in the eastern Manus Basin: basaltic andesite-andesite-dacite associations. J. Ocean University of China 16, 3, p. 389-402.

Macnab, R.P. (1970)- Geology of the Gazelle Peninsula, T.P.N.G.. Bureau Mineral Res. Geol. Geoph., Record No. 1970 /63, p. 1-127.
(online at: https://d28rz98at9flks.cloudfront.net/12476/Rec1970_063.pdf)
(Gazelle Peninsula in NE part of New Britain composed of volcanic rocks with associated sediments and limestone. Oldest rocks Eocene submarine, andesitic Baining Volcanics, intruded by contemporary and Oligocene hypabyssal and plutonic rocks, and partially overlain by U Oligocene- Lw Miocene Merai Volcanics in SE, M Miocene (lower Tf) Yalam Lst in centre W, and U Miocene- Pliocene volcanics in centre and E)

Macpherson, C.G., D.R. Hilton, D.P. Mattey & J.M. Sinton (2000)- Evidence for an 18O-depleted mantle plume from contrasting 18O/16O ratios of back-arc lavas from the Manus Basin and Mariana Trough. Earth Planetary Sci. Letters 176, p. 171-183.
(Back-arc basin glasses from Mariana Trough and Manus Basin contrasting oxygen isotope characteristics that require differences in their mantle sources)

Macpherson, C.G., D.R. Hilton, J.M. Sinton, R.J. Poreda & H. Craig (1998)- High 3He/4He ratios in the Manus backarc basin: implications for mantle mixing and the origin of plumes in the western Pacific Ocean. Geology 26, 11, p. 1007-1010.
(Glasses from lavas in central Manus backarc basin in W Pacific typical plume (or hotspot) 3He/4He ratios)

Martinez, F., B. Taylor & A. Goodliffe (1999)- Contrasting styles of seafloor spreading in the Woodlark Basin: indications of rift-induced secondary mantle convection. J. Geophysical Research, 104, B6, p. 12909-12926.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/1999JB900068/pdf)
(Woodlark Basin in SW Pacific is young ocean basin which began forming by ~6 Ma, following rifting of continental and arc lithosphere. N-S striking Moresby Transform divides oceanic basin. Seafloor spreading W of Moresby Transform began after ~2 Ma. Etc.)

Maung, T.U.& F.I. Coulson (1983)- Assessment of petroleum potential of the Central Solomon Basin. CCOP/SOPAC Techn. Report 26, p. 1-68.
(online at: http://ict.sopac.org/VirLib/TR0026.pdf)

McKee, C.& R. Duncan (2016)- Early volcanic history of the Rabaul area. Bull. Volcanology 78, 4, p. 1-28.
(Oldest systems in Rabaul area (>1 Ma to~300 ka) are in S)

Moyle A.J., B.J. Doyle, H. Hoogvliet & A.R. Ware (1990)- Ladolam gold deposit, Lihir Island. In F.E. Hughes (ed.) Geology of the mineral deposits of Australia and Papua New Guinea, Australasian Inst. of Mining and Metallurgy (AusIMM), Melbourne, Monogr. 14, 2, p. 1793-1805.

Moyle A.J., B.J. Doyle, H. Hoogvliet & A.R. Ware (1991)- The geology and mineralisation of the Ladolam gold deposit, Lihir Island, Papua New Guinea. In: PNG Geology, exploration and mining Conference, Rabaul 1991, Australasian Inst. of Mining and Metallurgy (AusIMM), Melbourne, p. 101-111.

Nairn, I.A., C.O. Mckee, B. Talai & C.P. Wood (1995)- Geology and eruptive history of the Rabaul Caldera area, Papua New Guinea. J. Volcanology Geothermal Res. 69, 3-4, p. 255-284.
(Rabaul Caldera most active of four N-S aligned volcanic centres in NE New Britain. Oldest exposed basaltic lavas dated at 0.5 Ma. Dacitic lavas in caldera wall 0.19 Ma, overlain by dacitic and andesitic pyroclastic flow and fall deposits. Holocene ignimbrites of latest caldera-forming eruptions ~3500 or 7000 yr B.P.)

Ollier, C.D. & C.F. Pain (1978)- Geomorphology and tectonics of Woodlark Island, Papua New Guinea. Zeitschrift Geomorphologie 22, 1, p. 1-20.
(Woodlark Island E of PNG mainland, composed of central part of Miocene volcanics, surrounded by Quaternary coral reefs. Deformed by two fault systems)

Page, R.W. & R.J. Ryburn (1977)- K-Ar ages and geological relations of intrusive rocks in New Britain. Pacific Geology 12, p. 99-105.
(also as BMR Record 1973/191; online at: https://d28rz98at9flks.cloudfront.net/13014/Rec1973_191.pdf)
(New Britain volcanic arc system with intermediate- basic intrusives complexes emplaced into Eocene-Oligocene volcanics, overlain by E-M Miocene limestones. K-Ar ages two groups of ages: 27-29 Ma (M Oligocene) and 22 Ma (E Miocene). Gazelle Peninsula tonalite body 14 Ma)

Petersen, K.D. & W.R. Buck (2015)- Eduction, extension, and exhumation of ultrahigh-pressure rocks in metamorphic core complexes due to subduction initiation. Geochem. Geophys. Geosystems 16, p. 2564-2581.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1002/2015GC005847)
(Discussion of exhumation of UHP rocks, whether involving rising of pieces of crust detached from subducted continental lithosphere, or entire subducted plate undergoing 'eduction' (reverse subduction), based on metamorphic core complexes of D'Entrecasteaux Islands, PNG. Eduction followed by seafloor spreading can occur in zone of convergence when subduction of buoyant crust causes subduction zone to 'lock up' and cause formation of new subduction zone. Model implies Goodenough Basin crust exhumed by eduction in last 5 Ma)

Robertson, A.H.F., S.A.M. Awadallah, S. Gerbaudo, K.S. Lackschewitz, B.D. Monteleone et al. (2001)- Evolution of the Miocene-Recent Woodlark Rift Basin, SW Pacific, inferred from sediments drilled during Ocean Drilling Program Leg 180. In: R.C.L. Wilson et al. (eds.) Non-volcanic rifting of continental margins: a comparison of evidence from land and sea, Geol. Soc., London, Spec. Publ. 187, p. 335-372.
(Woodlark Rift E of papuan Peninsula W-ward propagating spreading centre into continental crust. ODP leg 180 wells document history of Paleogene ophiolite emplacement, Miocene arc-related sedimentation and Late Miocene uplift and emergence of forearc area. Submergence to form Woodlark Rift began in latest Miocene, marked by marine transgression and input of tuffs and volcaniclastic sediments. Pliocene deposition dominated by deep-water turbidites. Pleistocene strong extension along N-dipping, low-angle Moresby Detachment Fault, associated with uplift of Moresby Seamount and shedding of fault-derived talus of meta-ophiolitic origin. Switch to pelagic-hemipelagic deposition in basin in Pleistocene related to W-ward propagation of Woodlark oceanic spreading centre at ~2 Ma)

Russell, P.J. & E.J. Finlayson (1987)- Volcanic-hosted epithermal mineralisation on Woodlark Island, Papua New Guinea. In: H.K. Herbert (ed.) Proc. Pacific Rim Congress 87, Australasian Inst. of Mining and Metallurgy (AusIMM), Melbourne, p. 381-385.
(Epithermal gold hosted by late M Miocene Okiduse Volcanics on Woodlark Island. Mineralisation contemporaneous with volcanism (12.2 - 12.5 Ma) and tied to subduction of Solomon Sea plate along Trobriand Trench. Pyrite, sphalerite, galena and minor chalcopyrite occur in steeply dipping fracture zones)

Ryburn, R.J. (1973)- Geologic map of Pomio, New Britain, Geol. Ser. SB56-6, 1:250,000. Bureau Mineral Res. Geol. Geoph., 17p.

Ryburn, R.J. (1975)- Geologic map of Cape Raoult-Arawe, New Britain, Geol. Ser. SB55-8, SB55-12, 1:250,000. Bureau Mineral Res. Geol. Geoph., 21p.

Ryburn, R.J. (1975)- Geologic map of Talasea-Gasmata, New Britain, Geol.Ser. SB56-5, SB56-9, 1:250,000. Bureau Mineral Res. Geol. Geoph., 26p.

Rytuba, J.J., E.H. McKee & D. Cox (1993)- Geochronology and geochemistry of the Ladolam gold deposit, Lihir island, and gold deposits and volcanoes of Tabar and Tatau, Papua New Guinea. US Geol. Survey Bull. 2039, p. 119-126.

Smith, I.E.M., B.W. Chappell, G.K. Ward & R.S. Freeman (1977)- Peralkaline rhyolites associated with andesitic arcs of the Southwest Pacific. Earth Planetary Sci. Letters 37, p. 230-236.
(Peralkaline rhyolites associated with andesitic volcanic arcs in D'Entrecasteaux Islands (SE PNG), Mayor Island and Kaeo area, Northland, New Zealand. Peralkaline rhyolites related to extensional environments)

Sykora, S., D.R. Cooke, S. Meffre, A.S. Stephanov, K. Gardner, R. Scott, D. Selley & A.C. Harris (2018)- Evolution of pyrite trace element compositions from porphyry-style and epithermal conditions at the Lihir gold deposit: implications for ore genesis and mineral processing. Economic Geology 113, 1, p. 193-208.
(Lihir (also known as Ladolam) Au deposit in PNG telescoped ore deposit, in which volcanic sector collapse led to superimposition of shallow-level Au-rich epithermal mineralization on genetically related, porphyry-style alteration. Au concentrated only along rims of pyrite grains, creating complications for ore processing)

Sykora, S., D. Selley, D.R. Cooke & A.C. Harris (2018)- The structure and significance of anhydrite-bearing vein arrays, Lienetz orebody, Lihir gold deposit, Papua New Guinea. Economic Geology 113, 1, p. 237-270.
(Lihir (Ladolam) is world's largest alkalic Au deposit gold deposit with 56-Moz Au resource and. Deposit in amphitheater, inferred to be remnant of original ~1.1-km-high volcanic cone with NE-directed sector collapse(s) and prolonged weathering. Late-stage Au-rich low-sulfidation epithermal mineralization superimposed on early-stage porphyry-style alteration)

Wallace, D.A., R.W. Johnson, B.W. Chappell, R J. Arculus, M.R. Perfit & I.H. Crick (1983)- Cainozoic Volcanism of the Tabar, Lihir, Tanga, and Feni Islands, Papua New Guinea: geology, whole-rock analyses, and rock-forming mineral compositions. Bureau Mineral Res. Geol. Geoph., Report 243, p. 1-62.
(online at: https://d28rz98at9flks.cloudfront.net/15154/Rep_243.pdf)
(Tabar, Lihir, Tanga and Feni island groups form alkaline volcanic chain NE of Tertiary New Ireland island arc. Mainly Pliocene-Pleistocene lavas and volcanoclastics. Alkaline rocks mainly phonolitic tephrite and trachybasalt, but also more mafic types. Raised Pleistocene coral reef terraces fringe many islands. E-M Miocene reef limestone on Simberi Island in Tabar Island group)

Webber, S., K.P. Norton, T.A. Little, L.M. Wallace & S. Ellis (2018)- How fast can low-angle normal faults slip? Insights from cosmogenic exposure dating of the active Maiõiu fault, Papua New Guinea. Geology 46, 3, p. 227-230.
(Mai'iu fault in rapidly extending Woodlark Rift is one of few active continental low-angle normal faults globally. Such faults may slip at >10-20 mm/yr faster than high-angle normal faults. Cosmogenic nuclide exposure dating (10Be in quartz) of Mai'iu fault scarp indicates slip at 11.7 ± 3.5 mm/yr over past ~5.5 k.y.)

Whalen, J.B. (1985)- Geochemistry of an island-arc plutonic suite: the Uasilau-Yau Yau Intrusive Complex, New Britain, P.N.G.. J. Petrology 26, 3, p. 603-632.
(Late Oligocene Uasilau-Yau Yau intrusive complex of C New Britain compositional continuum from gabbro to granodiorite, dated at ~28-29 Ma. Tonalite porphyry that led to porphyry copper mineralization is younger intrusive event at 24 Ma. Granites probably formed by partial melting of subducted oceanic crust or overlying mantle, and may be termed mantle or M-type granites)

Westaway, R. (2005)- Active low-angle normal faulting in the Woodlark extensional province, Papua New Guinea: a physical model. Tectonics 24, TC6003, p. 1-25.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2004TC001744)
(Correction published 1/2007)

Whalen, J.B. & I. McDougall (1980)- Geochronology of the Uasilau-Yau Yau porphyry copper prospect, New Britain, Papua New Guinea. Economic Geology 75, 4, p. 566-571.
(K-Ar ages for three major intrusive episodes of Uasilau-Yau Yau intrusive complex: Group 1 (gabbro and quartz diorite) >30 Ma; Group 2 (quartz diorite, tonalite, and granodiorite; main volume of complex) ~28.4 Ma; Group 3 tonalite ~23.5 Ma, followed closely by hydrothermal alteration and copper mineralization. All porphyry copper mineralization in New Britain may be result of late Oligocene igneous event)

Wiebenga, W.A. (1973)- Crustal structure of the New Britain- New Ireland region. In: P.J. Coleman (ed.) The Western Pacific: island arcs, marginal seas, geochemistry, University of Western Australia Press, p. 163-177.

Willcox, J.B. (1976)- Structure of the Bismarck Sea. Bureau Mineral Res. Geol. Geoph., Canberra, Record 1976/59, p. 1-46.
(online at: https://d28rz98at9flks.cloudfront.net/13479/Rec1976_059.pdf)
(Geophysical survey of Gulf of Papua and Bismarck Sea by CGG. Bismarck Sea marginal basin partly enclosed by New Guinea and New Britain, and W Melanesian Arc)

Yeats, C.J., J.M. Parr, R.A. Binns, J.B. Gemmell & S.D. Scott (2014)- The SuSu Knolls hydrothermal field, Eastern Manus Basin, Papua New Guinea: an active submarine high-sulfidation copper-gold system. Economic Geology 109, 8, p. 2207-2226.
(SuSu Knolls three steep-sided conical porphyritic andesite-to-dacite domes on N-NW-trending ridge in E Manus basin, with crests 1150-1520 m below sea level. Intense hydrothermal plumes, with Cu-Au sulfide mineralization. Good example of modern, high sulfidation, Cu-Au submarine hydrothermal system)

Yokoyama, Y., T.M. Esat & K. Lambeck (2001)- Coupled climate and sea-level changes deduced from Huon Peninsula coral terraces of the last ice age. Earth Planetary Sci. Letters 193, p. 579-587.
(Huon Peninsula of NE PNG, is uplifting shoreline ringed by emergent coral terraces, formed during episodes of rapid sea-level rise, and constructing coral platforms that were subsequently uplifted. Last glacial (OIS 3) coral terraces coincide with timing of major N Atlantic climate reversals between 30- 60 ka.Growth of terraces tied to sea-level rises arising from ice-calving episodes from major N Atlantic and Antarctic ice-sheets that precipitated extremes of cold climate called Heinrich events. Sea-levels at this time 60-90m lower than present)

IX.13. Papua New Guinea (Gulf of Papua, Coral Sea) (9)

Bailey, B. & G. Salem (2015)- Testing the Tertiary basin floor fan play in the Gulf of Papua, Papua New Guinea. In: Proc. Eastern Australian Basins Symposium (EABS), Petroleum Expl. Soc. Australia (PESA), p. 237-247.
(see also Bailey et al. 2015)

Botsford, A., L. Endebrock & A. Harrington (2012)- Structural and stratigraphic evolution of the Gulf of Papua, Papua New Guinea: new insights from a modern 3D seismic survey. Proc. Eastern Australasian Basins Symposium IV, Brisbane 2012, Petroleum Expl. Soc. Australia (PESA), 6p.
(Same as Botsford et al. 2015)

Bulois, C., M. Pubellier, N. Chamot-Rooke & M. Delescluse (2018)- Successive rifting events in marginal basins: the example of the Coral Sea Region (Papua New Guinea). Tectonics, p. *(in press)*
(Three successive rifting events in Coral Sea region: (1) poorly documented Triassic event, along N-S Permian structural fabric; (2) Jurassic reactivation forming small) basins bounded by N-S, NE-SW, and E-W listric faults. Extension continued in E Cretaceous with seafloor spreading in Owen Stanley Oceanic Basin, now incorporated in Papuan fold and thrust belts; (3) Late Cretaceous extension, followed by Coral Sea seafloor spreading from Danian-Ypresian. Coral Sea propagator cuts through rifted margin and is controlled by subduction complex tied to Tasman Sea opening)

Howell, A.L., S.J. Bentley, K. Xu, R.E Ferrell, Z. Muhammad & E. Septama (2014)- Fine sediment mineralogy as a tracer of latest Quaternary sediment delivery to a dynamic continental margin: Pandora Trough, Gulf of Papua, Papua New Guinea. Marine Geology 357, p. 108-122.

Jorry, S.J., A.W. Droxler & J.M. Francis (2010)- Deepwater carbonate deposition in response to re-flooding of carbonate bank and atoll-tops at glacial terminations. Quaternary Science Rev. 29, 17-18, p. 2010-2026.
(Incl. Gulf of Papua examples, adjacent to carbonate platform)

Septama, E. (2015)- The Late Quaternary deep-sea depositional system in the Gulf of Papua: linking source, dynamic sedimentation processes and depositional architecture. Ph.D. Thesis, Memorial University of Newfoundland, St. Johnôs, p. 1-158.

Septama, E. & S.J. Bentley (2016)- Late Quaternary geomorphology, seabed evolution, and terrigenous sediment delivery to the Pandora and Moresby Troughs, Gulf of Papua, Papua New Guinea. Marine Geol. 379, p. 208-223.
(Peak depositional period in late Quaternary deepwater Pandora Trough during Marine Isotope Stage 2, when large deep-sea channel network linked Pandora and Moresby Troughs, allowing long-distance sediment transport by large turbidity currents from Papuan mainland to Coral Sea Basin)

Septama, E. & S.J. Bentley (2017)- Source-to-sink sediment delivery in the Gulf of Papua from scanning electron microscopy and mineral liberation analysis-aided provenance analysis of deep-sea turbidite sands. AAPG Bull. 101, 6, p. 907-936.
(Provenance of Pleistocene- Holocene deepwater sediments in Gulf of Papua. Multiple terrestrial sediment sources along~500 km basin margin converged to form continuous deep-sea system in two basins before 30 ka. During sea level fall of Last Glacial Maximum (18-22 ka) distinct depocenters, due to incision of individual rivers across newly exposed coastal plain, followed by compositional similarity near end of LGM. Holocene, deepwater sand transport shut down, except one locality with narrow shelf-slope setting and additional volcanic supply)

Septama, E., S.J. Bentley & A.W. Droxler (2016)- Conduits, timing and processes of sediment delivery across a high relief continental margin, continental shelf to basin in the late Quaternary, Gulf of Papua. Marine Petroleum Geol. 72, p. 447-462.

IX.14. NE Indian Ocean (21)

Adisaputra, Mimin K. (1995)- Quaternary plankton foraminifera biozonation in Indian Ocean, South of Jawa. Bull. Marine Geological Inst. 10, 1, p.

Adisaputra, Mimin K. & H. Yuniarto (2013)- Biostratigrafi foraminifera Kuarter pada Bor inti MD 982152 da 982155 dari Samudra Hindia. Bull. Marine Geol. 11, 2, p. 55-66
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/231/221)
('Biostratigraphy of Quaternary foraminifera in cores MD 982152 and 982155 from the Indian Ocean'. Two 32 and 43m long IMAGES Expedition piston cores from SW and S of Java with Quaternary Globorotalia truncatulinoides Zone, subdivided into three subzones, Globorotalia crassaformis hessi, Globigerinella calida calida and Beella digitata)

Banerjee, B., S.M. Ahmad, W. Raza & T. Raza (2017)- Paleoceanographic changes in the Northeast Indian Ocean during middle Miocene inferred from carbon and oxygen isotopes of foraminiferal fossil shells. Palaeogeogr. Palaeoclim. Palaeoecology 466, p. 166-173.
(C and O isotope records of foraminifera from ODP site 758 in NE Indian Ocean on Ninetyeast Ridge. Climatic events recorded: 1. M Miocene Climate Optimum (17-15 Ma), (2) Monterey Excursion (17-14 Ma), (3) Et Antarctica Ice sheet formation (13.8 Ma), (4) Initiation of Indian summer monsoon with waning of Antarctica Ice sheet (12.3-10.4 Ma), and (5) cooling event (10.2–9.6 Ma))

Davies, T.A., R.B. Kidd & A.T.S. Ramsay (1995)- A time-slice approach to the history of Cenozoic sedimentation in the Indian Ocean. Sedimentary Geology 96, 1-2, p. 157-179.
(Study of changing patterns of sediment accumulation in Indian Ocean through Cenozoic. Paleogene sedimentation rates generally low, suggesting weak ocean circulation and stable, well-stratified conditions. Vigorous thermohaline circulation of Neogene resulted in substantial widespread sedimentation)

Geersen, J., J.M. Bull, L.C. McNeill, T.J. Henstock, C. Gaedicke, N. Chamot-Rooke & M. Delescluse (2015)- Pervasive deformation of an oceanic plate and relationship to large >Mw 8 intraplate earthquakes: the northern Wharton Basin, Indian Ocean. Geology 43, 4, p. 359-362.
(Earthquakes in N Wharton Basin demonstrate pervasive brittle deformation between Ninetyeast Ridge and Sunda subduction zone. Evidence of recent strike-slip deformation along N-S fossil fracture zones and Miocene conjugate Riedel shears in sediment section and oblique to N-S fracture zones)

Glass, B.P., D.R. Chapman & M.S.Prasad (1996)- Ablated tektite from the central Indian Ocean. Meteoritics Planetary Science 31, 3, p. 365-369.
(online at: http://adsabs.harvard.edu/full/1996M%26PS...31..365G)
(Ablated button-shaped tektite, 12mm in diameter from Central Indian Ocean seafloor at 5300m water depth. Compositionally similar to high-Mg australites and microtektites in deep-sea sediment from Indian Ocean, suggesting Australian tektite field also covers most of Indian Ocean)

Grevemeyer, I., E.R. Flueh, C. Reichert, J. Bialas, D. Klaschen & C. Kopp (2001)- Crustal architecture and deep structure of the Nintyeast Ridge hotspot trail from active-source ocean bottom seismology. Geophysical J. Int. 144, p. 414-431.
(550km long seismic reflection and refraction transect across Ninetyeast Ridge, Indian Ocean, which was created between ~90- 38 Ma above Kerguelen mantle plume. Normal oceanic crust W and E of ridge/ edifice, with crustal thickness average 6.5- 7 km. Crust under ridge bent downward by loading, and hotspot volcanism underplated pre-existing crust, leading to crustal thickness up to ~24km. Underplating continued to E under Wharton Basin)

Hall, C.M. & J.W. Farrell (1995)- Laser 40Ar/39Ar ages of tephra from Indian Ocean deep-sea sediments: Tie points for the astronomical and geomagnetic polarity time scales. Earth Planetary Sci. Letters 133, 3/4, p. 327-338.

(Two Neogene ash layers from ODP Site 758 (Ninetyeast Ridge) dated by laser 40Ar 39Ar. Ash-D (= possible 'Old Toba Tuff') age of 800 ± 20 ka, consistent with 780 ka age of overlying Brunhes-Matuyama transition and age for oxygen isotope stage 19.1. Ash-I, near top of Nunivak subchron possible eruption age of 4.43 ± .03 Ma)

Holbourn, A.E.L. & M.A. Kaminski (1995)- Lower Cretaceous benthic foraminifera from DSDP Site 263: micropalaeontological constraints for the early evolution of the Indian Ocean. Marine Micropaleontology 26, p. 425-460 .
(NW Australian margin DSDP Site 263 E Cretaceous with 66 agglutinated and 31 calcareous taxa: Three assemblages: (1) high-diversity Valanginian-Barremian Bulbobaculites-Recurvoides; (2) moderately diverse Aptian-Albian Rhizammina-Ammodiscus-Glomospira; (3) low diversity Albian-younger of sparse agglutinants, nodosariids and rotaliids. Shelf- lower slope assemblages, deepening after initial breakup of E Gondwana margin in Valanginian. Absence of many cosmopolitan forms suggests faunal differentiation in Austral realm)

Krishna, K.S., D.G. Rao, M.V. Ramana, V. Subrahmanyam, K.V.L.N.S. Sarma, A. I. Pilipenko, V.S. Sheherbakov & I.V.R. Murthy (1995)- Tectonic model for the evolution of oceanic crust in the northeastern Indian Ocean from the Late Cretaceous to the Early Tertiary. J. Geophysical Research, Solid Earth, 100, B10, p. 20011-20024.

Matthews, K.J., R.D. Muller & D.T. Sandwell (2016)- Oceanic microplate formation records the onset of India-Eurasia collision. Earth Planetary Sci. Letters 43, p. 204-214.
(Seafloor tectonic fabric in Indian Ocean from satellite gravity gradient data reveals extinct Pacific-style oceanic microplate ('Mammerickx Microplate') W of 90E Ridge. Formed at Indian- Antarctic ridge, during chron 21n(o) (~47.3Ma; around E-M Eocene boundary). With rotated abyssal hill fabric. Probably plate reorganization linked to India-Eurasia collision (initial 'soft' collision))

Olierook, H.K.H., R.E. Merle, F. Jourdan, K. Sircombe, G. Fraser, N.E. Timms, G. Nelson, K.A. Dadd, L. Kellerson & Borissova (2015)- Age and geochemistry of magmatism on the oceanic Wallaby Plateau and implications for the opening of the Indian Ocean. Geology 43, 11, p. 971-974.
(Plagioclase and zircon dating indicate that portion of theWallaby Plateau off W Australia formed at ~124 Ma (E Aptian), i.e. >6 My younger than oldest oceanic crust in adjacent abyssal plains. Eruption made possible at 124 Ma via opening of Indian Ocean during breakup of Greater India and Australia along Wallaby-Zenith FZ)

Prasad, M.S. (1994)- New occurrences of Australasian microtektites in the Central Indian Basin. Meteoritics Planetary Science 29, 1, p. 66-69.

Prasad, M.S., S.M. Gupta & V.N. Kodagali (2003)- Two layers of Australasian impact ejecta in the Indian Ocean? Meteorics Planetary Science 38, 9, 1373-1381.
(Flanged button tektite on Indian Ocean floor, at shallower level than ~750 ka microtektite horizon at 60-125mm below ocean floor))

Prasad M.S., V.P. Mahale & V.N. Kodagali (2007)- New sites of Australasian microtektites in the Central Indian Ocean: implications for the location and size of source crater. J. Geophysical Research- Planets 102, E6, E06007, p. 1-11.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2006JE002857/epdf)
(Fifteen new Australasian microtektite sites in C Indian Ocean, now to 61 microtektite sites in oceans. Contours joining highest values of square of correlation coefficient of all known data sites define source area in NE Thailand- C Laos (18° N and 104°E. Calculated crater diameter 33-120 km)

Prasad, M.S. & M. Sudakhar (1999)- Australian minitektites discovered in the Indian Ocean. Meteorics Planetary Science 34, p. 179-184.
(Box core samples in Indian Ocean yied minitektites (>1-3.75 mm long), occurring with microtektites belonging to 0.77 Ma Australasian tektite strewn field)

Qin, Y. & S.C. Singh (2015)- Seismic evidence of a two-layer lithospheric deformation in the Indian Ocean. Nature Communications 6, 8298, 12p.
(online at: www.nature.com/articles/ncomms9298)
(Wharton Basin in Indian Ocean with active intra-plate deformation, with earthquakes rupturing entire lithosphere. In Wharton Basin direction of maximum stress is NW-SE, and deformation is accommodated along N5°E-trending re-activated fracture zones with left-lateral strike-slip movements. Seismic reflection profiles show faults down to 45 km depth. Lithospheric mantle deformation divided into two layers: upper fractured fluid-filled serpentinized layer and lower pristine brittle lithospheric mantle where great earthquakes initiate)

Robinson, P.T. & D.J. Whitford (1974)- Basalt from the Eastern Indian Ocean, DSDP Leg 27. In: J.J. Veevers et al. (eds.) Initial Reports Deep Sea Drilling Project (DSDP) 27, p. 551-559.
(online at: www.deepseadrilling.org/27/volume/dsdp27_26.pdf)
(Basalt recovered from Perth, Argo, and Gascoyne abyssal plains. Late JurassicE Cretaceous age basalts at Sites 259 and 261 quartz-normative tholeiites and olivine tholeiites, chemically similar to ocean ridge basalts, representing ancient oceanic crust formed during early rifting off W Australia. Basalt sills at Site 260, 261 postdate E-M Albian sediments and represent younger intraplate activity)

Singh, S.C., H. Carton, A.S. Chauhan, S. Androvandi, A. Davaille, J. Dyment, M. Cannat & N.D. Hananto (2011)- Extremely thin crust in the Indian Ocean possibly resulting from plume-ridge interaction. Geophysical J. Int. 184, 1, 2942, p. 29-42.
(Thickness of crust created at ocean spreading centres depends on spreading rate and melt production in mantle. It is ~5-8 km for crust formed at slow and fast spreading centres and 2-4 km at ultra-slow spreading centres away from hotspots and mantle anomalies. Crust is generally thin at fracture zones and thick beneath hotspots and large igneous provinces. Crust generated at fast Wharton spreading centre at 55-58 Ma only 3.5-4.5 km thick over 200 km segment of Wharton Basin as suggested by interpreted Moho on seismic reflection and refraction data. This is thinnest crust ever observed in fast spreading environment, and likely formed by interaction between Kerguelen mantle plume and Wharton spreading centre at ~55 Ma)

Stein, C.A., S. Cloetingh & R. Wortel (1989)- Seasat-derived gravity constraints on stress and deformation in the northeastern Indian Ocean. Geophysical Research Letters 16, p. 823-826.

Trueman, N.A. (1965)- The phosphate, volcanic and carbonate rocks of Christmas Island (Indian Ocean). J. Geol. Soc. Australia 12, 2, p. 261-283.
(Christmas Island consists of interbedded volcanic and carbonate rocks, mainly of Eocene and Miocene age. Volcanic rocks successively more basic, varying from andesite to limburgite. Phosphate deposits three main mineral groups: apatite, barrandite and crandallite-millisite)

IX.15. NW Australia margin (90)

Abbott, S.T., K. Khider, A. Kelman & K. Romine (2016)- Facies architecture of the K10 supersequence in the Browse Basin: when sequence stratigraphy meets lithostratigraphy. APPEA 56th Conf. Exhib., Brisbane, The APPEA J. 56, 2, p. 568-.
(Sequence stratigraphic mapping of K10 supersequence (Berriasian-Valanginian; Brewster Mb). Deposition of K10 started at onset of rifting between Greater India and N Carnarvon Basin. Sediment sourced from uplifted areas resulted in deposition of Barrow Delta in Exmouth and Barrow sub-basins and smaller K10 sand-rich progradational sequence in Caswell subbasin. Gas reservoir in Ichthys-Prelude and Burnside fields)

Arevalo-Lopez, H.S. & J.P. Dvorkin (2017)- Rock-physics diagnostics of a turbidite oil reservoir offshore northwest Australia. Geophysics 82, 1, p. MR1-MR13.
(Rock physics data from 4 wells in offshore Stybarrow field oil reservoir, Exmouth Basin, 65 km offshore NW Australia. Reservoir composed of turbiditic sandstones interbedded with claystones of E Cretaceous (Valanginian- Berriasian) age)

Bailey, W.R., J. Underschultz, D.N. Dewhurst, G. Kovack, S. Mildren & M. Raven (2006)- Multi-disciplinary approach to fault and top seal appraisal; Pyrenees-Macedon oil and gas fields, Exmouth Sub-basin, Australian NW Shelf. Marine Petroleum Geol. 23, 2, p. 241-259.
(Pyrenees-Macedon fields in Exmouth subbasin of N Carnarvon Basine currently underfilled relative to available closure despite being regional focal point for Cretaceous- Recent charge. Vertical leakage may have controlled column heights, possibly via dynamic failure along pre-existing faults and conductive fractures, and lateral leakage across reservoir against thief zone fault juxtapositions)

Belde, J., S. Back, J. Bourget & L. Reuning (2017)- Oligocene and Miocene carbonate platform development in the Browse Basin, Australian Northwest Shelf. J. Sedimentary Res. 87, 8, p. 795-816.
(In Browse Basin oldest carbonate build-ups interpreted as Oligocene giant bryozoan build-up complex (34- 27.8 Ma). In late Burdigalian start of tropical reef growth and reef-rimmed carbonate platforms progressively coalesced into extensive barrier reef. M Langhian- E Tortonian Browse Basin barrier-reef system >500 km long, possibly extending into N Carnarvon Basin. After E Tortonian reefs smaller and less connected, likely resulting from cooling following the M Miocene Climate Optimum. Final phase of reef decline at ~6 Ma)

Belde, J., S. Back & L. Reuning (2015)- Three-dimensional seismic analysis of sediment-waves and related geomorphological features on a shelf influenced by large amplitude internal waves, Browse Basin region, Australia. Sedimentology 62, p. 87-109.

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Bellingham, P. & K. McDermott (2014)- The Australian North West shelf: new insights from deep seismic. GeoExpro 11, 6, p. 58-62.
(online at: https://www.iongeo.com/content/documents/Resource%20Center/Articles/GXPRO_The_Australian_North_West_Shelf_141201.pdf)
(New deep regional seismic data (WestraliaSPAN survey) show NW Australian margin with long history of Phanerozoic extension. North Carnarvon and Bonaparte Basins (Petrel sub-basin) with up to 20 km and 24 km sediment. Models of hyper-extension and/or mantle exhumation required to isostatically provide accommodation space for such deep basins. Progressively higher grade metamorphism at base of sedimentary pile evidenced by reflections that appear sedimentary, but with have seismic velocities of 6 km/s and more)

Bint, A.N. (1988)- Gas fields of the Browse Basin. In P.G. & R.R. Purcell (eds.) The North West Shelf, Australia, Proc. Australian Petroleum Expl. Soc. (PESA) Symposium, Perth, p. 413-417.
(Browse Basin, between offshore Canning Basin to SW and Bonaparte Basin to NE. Two large gas fields discovered in C part of basin (Scott Reef 1971, Brecknock 1979). Two more gas discoveries in 1982 and 1983:

North Scott Reef and Echuca Shoals. Structures fault-bounded, with gas in Lower to Middle Jurassic sandstones, sealed by U Jurassic and Lower Cretaceous claystones)

Bint, A.N. (1991)- Discovery of the Wanaea and Cossack oil fields. The APEA Journal 31, 1, p. 22-31.

Bint, A.N. & N.G. Marshall (1994)- High resolution palynostratigraphy of the Tithonian Angel Formation in the Wanaea and Cossack Oil Fields, Dampier Sub-Basin. In P.G. & R.R. Purcell (eds.) The sedimentary basins of Western Australia, Proc. Petroleum Expl. Soc. Australia (PESA) Symposium, Perth, p. 543-553.
(Nine dinoflagellate subzones within Tithonian U Dingodinium jurassicum- Pseudoceratium iehiense zones of Helby et al. (1987), in ~300m thick Angel Fm oil reservoir sandstones section. >150 dinoflagellate species. Zircons from ash beds in Wanaea 2 well indicate basal Cretaceous age for P. iehiense- K. wisemaniae zone boundary)

Black, M., K.D. McCormack, C. Elders & D. Roberston (2017)- Extensional fault evolution within the Exmouth sub-basin, North West Shelf, Australia. Marine Petroleum Geol. 85, p. 301-315.
(Three populations of normal faults in Exmouth Subbasin of NW Shelf volcanic margin of Australia: (1) latest-Triassic-M Jurassic N-NNE-trending; (2) Late Jurassic- E Cretaceous NE-trending, and (3) latest-Triassic- E Cretaceous N-NNE faults. Fault displacement during two periods, 210-163 Ma and 145-138 Ma)

Bourget, J., R.B. Ainsworth & R. Nanson (2013)- Origin of mixed carbonate and siliciclastic sequences at the margin of a ñgiantò platform during the Quaternary (Bonaparte Basin, NW Australia). In: K. Verwer et al. (eds.) Deposits, architecture, and controls of carbonate margin, slope, and basinal settings, Soc. Sedimentary Geol. (SEPM) Spec. Publ. 105, p. 157-177.
(On Quaternary mixed carbonate- siliciclastic sedimentation on 630km-wide Bonaparte Basin shelf, NW Australia)

Bourget, J., R. Nanson, R. Ainsworth, S. Courgeon, S. Jorry & H. Al-Anzi (2013)- Seismic stratigraphy of a Plio-Quaternary intra-shelf basin (Bonaparte Shelf, NW Australia). In: M. Keep & S.J. Moss (eds.) West Australian Basins Symposium, Perth, p. 1-18.
(Bonaparte Basin unusually wide (~630km) continental shelf where carbonate and siliciclastic sediments accumulated during Late Pliocene- Quaternary (~3.5 Ma BP onwards). Early Australia-Banda Arc collision flexure-induced Neogene deformation shaped very low gradient (< 0.07°) basin in middle of shelf. Two main seismic sequences: (1) aggradation of carbonate platforms in late Pliocene- E Quaternary, followed by (2) phase of reduced carbonate production infill of intrashelf basin with clastic and mixed sediments. Change attributed to onset of 100 kyr-long, large amplitude glacio-eustatic cycles at E-L Quaternary transition)

Brooke, B.P., S.L. Nichol, Z. Huang & R.J. Beaman (2017)- Palaeoshorelines on the Australian continental shelf: Morphology, sea-level relationship and applications to environmental management and archaeology. Continental Shelf Research 134, p. 26-38.
(online at: www.sciencedirect.com/science/article/pii/S0278434316303375)
(Paleoshorelines on stable continental shelves around Australia are relict features formed during periods of lower sea level. Well-dated Late Quaternary (0-128 ka) sea-level record indicates most persistent lower sea levels at 30-40m below present (97-116 ka and ~85-10 ka); secondary modal position at 70-90m (during fluctuating sea level between 30-60 ka and ~87 ka). Tectonically stable Australian continental shelf with range of shorelines, potentially useful for targeting sites of human occupation during periods of lower sea level)

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Chapri, A. (1994)- Facies interpretation and diagenesis of the Cossigny Member, Beagle sub-basin, North West Shelf, Western Australia. M.Sc. Thesis University of Adelaide, p. 1-57 + appendices.
(online at: https://digital.library.adelaide.edu.au/dspace/bitstream/2440/103148/4/02whole.pdf)
(Presence of 100-140m thick M Triassic (Ladinian) carbonates in Phoenix 1, 2 and Cossigny 1 wells. Cossigny Mb oolitic-peloid grainstones represent brief marine transgression)

Daim, F.L. & P.G. Lennox (1998)- A new tectonic model for the evolution of the Northern Carnarvon Basin, Western Australia. In: P.G. & R.R. Purcell (eds.) The sedimentary basins of Western Australia 2, Proc. Petroleum Expl. Soc. Australia (PESA) Symposium, Perth, p. 435-445.
(Creation of N Carnarvon Basin was by multi-stage ductile movement of lower crust, in general northerly direction, from Exmouth Plateau, towards assumed decompression zones S bounding fault of Canning Basin)

De Deckker, P. & Y. Yokoyama (2009)- Micropalaeontological evidence for Late Quaternary sealevel changes in Bonaparte Gulf, Australia. Global and Planetary Change 66, p. 85-92.
(Micropaleo of 5m core from 116m water depth in Bonaparte basin records sealevel trends from ~40-12 ka. Supports ~120m relative sea level drop at Last Glacial Maximum before ~19 ka, followed by rapid marine transgression)

Di Toro, G.A.E. (1995)- Angel Formation turbidites in the Wanaea field area, Dampier Sub-basin, North-West Shelf, Australia. In: In: K.T. Pickering et al. (eds) Atlas of deep water environments, Springer, Dordrecht, p. 260-266.
(Angel Fm sand-dominated submarine fan sequence deposited through most of Dampier subbasin. U Jurassic (Tithonian) age and in Wanaea area structureless sandstones interbedded with argillaceous siltstones)

Driscoll, N.W. & G.D. Karner (1998)- Lower crustal extension across the Northern Carnarvon Basin, Australia: evidence for an eastward dipping detachment. J. Geophysical Research, Solid Earth 103, B3, p. 4975-4991.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/97JB03295)
(N Carnarvon basin 4 extension events:(1) broadly distributed late Permian event, (2) localized Rhaetian event responsible for inception of Barrow and Dampier subbasins, (3) localized Callovian fault reactivation in Barrow-Dampier subbasins and (4) Tithonian-Valanginian event that generated large post-Valanginian regional subsidence across N Carnarvon basin with only minor brittle deformation and erosional truncation. (4) requires significant lower crustal and mantle extension across N Carnarvon, implying existence of E-dipping, intracrustal detachment with ramp-flat-ramp geometry, effectively thinning lower crust and lithospheric mantle. Detachment breached surface close to continent-ocean boundary W of Exmouth Plateau. Flat component of detachment at mid-crustal depths(~15 km) across plateau and ramped beneath Australian continent. Lower crustal ductile extension viable mechanism to generate large regional subsidence with little upper crustal brittle deformation)

Erskine, R. D. & P.R. Vail (1988)- Seismic stratigraphy of the Exmouth Plateau. In: A.W. Bally (ed.) Atlas of seismic stratigraphy, American Assoc. Petrol. Geol. (AAPG), Studies in Geology 2, p. 163-173.
(Exmouth Plateau with >2000m thick nonmarine- marginally marine Triassic section, overlain by thin, marine latest Triassic (Rhaetian)- Jurassic section. Thin Jurassic section overlain by a >1500m thick Berriasian-Valanginian-age clastic wedge that progrades from SE to NW, overlain by thin Hauterivian-Aptian glauconitic sands on shelf. Overlying Aptian-Tertiary section consists of fine-grained deep marine marls)

George, A.D. & N. Chow (2002)- The depositional record of the Frasnian/Famennian boundary interval in a fore-reef succession, Canning Basin, Western Australia. Palaeogeogr. Palaeoclim. Palaeoecology 181, 1-3, p. 347-374.

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(online at: http://dmpbookshop.eruditetechnologies.com.au/product/palaeontology-of-the-permian-of-western-australia.do)
(E Permian ammonoid faunas of W Australia (Perth, Carnarvon basins) strikingly provincial (tied to Boreal Realm with dominance of Metalegoceratidae and Paragastrioceratidae, and lacking Tethyan Perrinitidae) Late Permian ammonoids tend to be cosmopolitan)

Goktas, P. (2013)- Morphologies and controls on development of Pliocene-Pleistocene carbonate platforms: Northern Carnarvon Basin, Northwest Shelf of Australia. M.Sc. Thesis, University of Texas at Austin, p. 1-72.
(online at: https://repositories.lib.utexas.edu/handle/2152/22220)
(Interpretation of 3D seismic data over four Plio-Pleistocene flat-topped carbonate platforms on NW Shelf)

Gorter, J.D. & A.Y. Glikson (2000)- Origin of a late Eocene to pre-Miocene buried crater and breccia lens at Fohn-1, North Bonaparte Basin, Timor Sea: a probable extraterrestrial connection. Meteorics Planetary Science 35, 2, p. 381-392.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1945-5100.2000.tb01784.x/epdf)
(Seismic data and >350 thick, Pllatinum Group Elements-rich carbonate breccia lens intersected by Fohn-1 well in Timor Sea, interpreted in terms of buried 4.8 km-wide impact crater of late Eocene- Oligocene age. Original crater at least 1400m deep)

Haig, D.W. (2018)- Permian (Kungurian) foraminifera from Western Australia described by Walter Parr in 1942: reassessment and additions. Alcheringa, 30p. *(in press)*
(Study of well-preserved late E Permian siliceous agglutinated Foraminifera originally recorded by Parr from Quinnanie Shale and lower Wandagee Fm in Merlinleigh sub-basin of S Carnarvon Basin)

Hill, K.C. & L. Mahoney (2018)- Compressional evolution of the PNG margin from an orogenic transect from Juha to the Sepik. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts 2018, 1, p. 1-3. *(Extended Abstract)*
(online at: www.publish.csiro.au/ex/pdf/ASEG2018abT5_3A)
(Regional restored cross-section across PNG orogenic belt shows Oligocene- Recent compressional deformation of margin. N end of section with Landslip Metamorphics, an accreted continental terrane, separated from main foldbelt by Jurassic April Ultramafics/ Om Metamorphics/ Eocene volcanics, together constituting accretionary prism. Suture overlain by Miocene sediments indicating Oligocene docking prior to E Miocene subsidence, consistent with E Miocene extension in PNG and emplacement of metamorphic core complexes in Sepik area. Neogene compression started at ~12 Ma with shortening of ~12mm/yr from 12-4 Ma, and 2.5mm/yr from 4-0 Ma, consistent with change in structural style in foldbelt from thrust to more ductile, fold-dominated deformation. Etc.)

Hillis, R.R. (1998)- The Australian stress map. Petroleum Expl. Soc. Australia (PESA) News 37, p. 40-43.

Hillis, R.R., S.D. Mildren, C.J. Pigram & D.R. Willoughby (1996)- The North West Shelf stress map. PESA News 22, p. 42-47.
(NW Shelf stress map, based on analysis of borehole breakouts, indicates direction of maximum contemporary horizontal compression in upper few km of crust. Regional stress direction is consistently oriented ~050° 060°N (SW-NE) from onshore Canning Basin, Bonaparte basin to New Guinea. Between Canning and Carnarvon Basins max orientation swings ~ 40° to 090°-100°N (WNW-ESE.)

Hocking, R.M. (1988)- Regional geology of the northern Carnarvon basin. In: P.G. & R.R. Purcell (eds.) The North West Shelf, Australia, Proc. North West Shelf Symposium, Petroleum Expl. Soc. Australia (PESA), p. 97-114.
(Carnarvon Basin of W Australia two distinct parts: (1) southern, onshore, N-trending sub-basins with up to 7km of mainly Paleozoic sediments, and (2) northern, offshore, NE trending sub-basins, up to 15 km deep, with thick Mesozoic and Cenozoic sequences as well as Paleozoic sediments)

Hocking, R.M. (1992)- Jurassic deposition in the southern and central North West Shelf, western Australia. Geol. Survey Western Australia, Perth, Record 1992/7, p. 1-101.

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Hull, J.N.F. & C.M. Griffiths (2002)- Sequence stratigraphic evolution of the Albian to Recent section of the Dampier Sub-basin, North West Shelf Australia. In: M. Keep & S.J. Moss (eds.) The sedimentary basins of Western Australia 3, Proc. Petroleum Expl. Soc. Australia (PESA) Symposium, Perth, p. 617-639.
(In Dampier sub-basin Albian-Santonian sequences progressive increase in water depth and carbonate content, reaching maximum with widespread Santonian calcilutites. Following major relative sea level fall at base

Oligocene a strongly prograding carbonate margin established, persisting to present day. Late Miocene- Recent section significant basinward thickening and onlap above N17-1 SB, implying renewed tectonic subsidence associated with collision of Australia and SE Asia in Late Miocene)

Ishiwa, T., Y. Yokoyama, Y. Miyairi, M. Ikehara & S. Obrochta (2016)- Sedimentary environmental change induced from late Quaternary sea-level change in the Bonaparte Gulf, northwestern Australia. Geoscience Letters 3.33, p. 1-11.
(online at: https://geoscienceletters.springeropen.com/articles/10.1186/s40562-016-0065-0
(Bonaparte Gulf of NW Australian continental margin among widest in world (up to 500km), with shallow carbonate terraces and platforms exposed during periods of lower sea level. Switch from siliciclastic to carbonate-dominated sedimentation during last glaciation at ~26 ka, associated with local sea-level fall of -90m)

Ishiwa T., Y. Yokoyama Y. Miyairi, S. Obrochta, T. Sasaki, A. Kitamura, A. Suzuki et al. (2016)- Reappraisal of sea-level lowstand during the Last Glacial Maximum observed in the Bonaparte Gulf sediments, northwestern Australia. Quaternary Int. 397, p. 373-379.
(Sea-level minimum at Last Glacial Maximum occurred at 20.8 ka and LGM durations shorter than reported)

Jenkins, C.C., A. Duckett, B.A. Boyett, P.N. Glenton, A.A. Mills, M.C. Schapper, M.A. Williams & J.G. McPherson (2017)- The Jansz-Io gas field, Northwest Shelf Australia: a giant stratigraphic trap. In: R.K. Merrill & C.A. Sternbach (eds.) Giant fields of the decade 2000-2010, American Assoc. Petrol. Geol. (AAPG) Mem. 113, Chapter 16, p. 305-322.
(Jansz-Io gas field large stratigraphic trap over 2000 km2, with both structural (faulted anticline) and stratigraphic (reservoir pinch-out) components. Stratigraphic component defined by reservoir extent, (depositional downlap to NW and erosional truncation by U Jurassic and Lw Cretaceous unconformities to SE). Original gas in place for Oxfordian sandstone reservoir 11-33 TCF)

Jones, P.J. & C.B. Foster (1985)- Late Permian (Kazanian) ostracods and associated palynomorphs, from the Petrel Sub-basin, northwestern Australia. Mem. Assoc. Australasian Palaeontologists (AAP) 27, p. 33-51.
(Marine ostracod fauna from limestone cuttings Pearce Mb (497-502 m) of Hyland Bay Fm in Barnett 1 well in SE Petrel basin. Contains Graphiadactyllis formosa and other species known from Late Permian (Kazanian) of Russian Platform. Associated with APP 43 (=Dulhuntyispora dulhuntyi) spore-pollen zone)

Jones, W., A. Tripathi, R. Rajagopal & A. Williams (2011)- Petroleum prospectivity of the West Timor Trough. (PESA) News 114, p. 61-65.
(Brief seismic-based review of W Timor Trough. Jurassic sediments missing in wells on Ashmore Platform, but new seismic data indicates thicker Jurassic strata in NE, particularly in Timor Graben)

Jules, R., J.R. Ye & Q. Cao (2016)- Geological conditions and hydrocarbon accumulation processes in the Sahul Platform, Northern Bonaparte Basin, Australia. Int. J. Geosciences 7, p. 792-827.
(online at: http://file.scirp.org/pdf/IJG_2016062913404548.pdf)
(Sahul Platform in N Bonaparte Basin between Timor Trough to N and Malita Graben to S. With Sunset-Loxton Shoals and Chuditch gas fields in M Jurassic Plover Fm sandstone. Hydrocarbons migrated mainly from U Jurassic Frigate Shale source rock in Malita Graben to Sunset-Loxton Shoals field in Late Cretaceous (66 Ma). In Chuditch field hydrocarbon migration initiated in Late Miocene (7.5 Ma) from Plover Fm source rock)

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(online at: http://search.ror.unisa.edu.au/media/researcharchive/open/9915960302001831/53112361830001831)
(On causes of apparent vitrinite reflectance suppression in Jurassic-Cretaceous of Barrow- Dampier subbasins)

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(Jurassic-Cretaceous formations of predominantly marine origin yield vitrinite reflectance values that are often lower than expected. Two possible explanations: (1) recent increase in thermal gradients occurred; or (2) vitrinite reflectance is suppressed, related to the marine environment of deposition)

King, E. (2008)- Seismic stratigraphy of the intra-Barrow Group, Barrow sub-basin, Northwest Shelf, Australia. M.Sc. Thesis University of Adelaide, School of Petroleum, p. 1-126.
(online at: https://digital.library.adelaide.edu.au/dspace/bitstream/2440/59013/2/02whole.pdf)
(Seismic stratigraphy of basal Cretaceous (Berriasian- E Valanginian) Barrow Delta, S of Barrow island. Large shelf-margin fluvial-deltaic system built out to NE. Eleven 2nd-order sequences, with lowstand, transgressive and highstand systems tracts. Within Sequence 1 higher-order sequences with numerous lowstand system wedges and associated channel features)

Kivior, T. (2005)- Characterising top seal in the Vulcan Sub-Basin, North West Shelf, Australia. B.Sc. (Hons) Thesis, University of Adelaide, Australian School of Petroleum, p. 1-390.
(online at: https://digital.library.adelaide.edu.au/dspace/bitstream/2440/59638/2/02whole.pdf)

Langhi, L., Y. Zhang, A. Gartrell, M.P. Brincat, M. Lisk, J. Underschultz & D. Dewhurst (2013)- Mechanism of upfault seepage and seismic expression of hydrocarbon discharge sites from the Timor Sea. In: F. Aminzadeh et al. (eds.) Hydrocarbon seepage: from source to surface, Chapter 2, Soc. Exploration Geoph. (SEG) and Amer. Assoc. Petroleum Geol. (AAPG), p. 11-41.
(Seismic expression of hydrocarbon leakage across faults from Jurassic reservoirs in Laminaria and Corallina fields)

Laurie, J.R., S. Bodorkos, R. Nicoll, J. L. Crowley, D J. Mantle, A.J. Mory, G.R. Wood, J. Backhouse et al. (2016)- Calibrating the middle and late Permian palynostratigraphy of Australia to the geologic time-scale via U-Pb zircon CA-IDTIMS dating. Australian J. Earth Sciences, 63, 6, p. 701-730.
(U-Pb zircon dating allows direct calibration of palynostratigraphy to numerical time-scale highlights significant inaccuracies in the previous indirect correlation. Top Dulhuntyispora granulata Zone (APP4.1) in Wordian, D. dulhuntyi Zone (APP4.3) exceptionally short, within Wuchiapingian, not E Capitanian; top D. parvithola Zone (APP5) near Permo-Triassic boundary, not in latest Wuchiapingian, etc.)

Laurie, J.R., S. Bodorkos, T.E. Smith, J. Crowley & R. Nicoll (2015)- The CA-IDTIMS Method and the Calibration of endemic Australian palynostratigraphy to the geological timescale. In: AAPG /SEG Int. Conf. Exhib., Melbourne 2015, Search and Discovery Art. 51207, 19p.
(online at: www.searchanddiscovery.com/pdfz/documents/2015/51207laurie/ndx_laurie.pdf.html)
(Permian palynozone recalibration via zircon dating of volcanic beds. Similar to Laurie et al. 2016))

Lavering, I.H. & S. Ozimic (1988)- Bonaparte Basin petroleum accumulations. In: P.G. & R.R. Purcell (eds.) The North West Shelf, Australia, Proc. North West Shelf Symposium, Petroleum Expl. Soc. Australia (PESA), p. 331-337.
(33 known petroleum accumulations in Bonaparte Basin in Devonian-Tertiary reservoirs. Largest oilfields Challis, Jabiru, Puffin and Skua, in faulted-anticline traps in Vulcan Sub-basin, Ashmore Platform and Jabiru Terrace. Largest gas accumulations Petrel and Tern in anticlinal traps in Permian of Petrel sub-basin. Palozoic oils lower gravity than Mesozoic oils. Gases in Permian- Carboniferous sequences higher nitrogen and CO2)

Long, D., A. Millar, S. Weston, L. Esteban, A. Forbes & M. Kennedy (2018)- Ungani Oil Field, Canning Basin-evaluation of a dolomite reservoir. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts 2018, 1, p. 1-8. *(Extended Abstract)*
(online at: www.publish.csiro.au/ex/pdf/ASEG2018abT5_2B)
(Ungani field, discovered in Canning Basin in 2011, with 37°API oil from Tournasian Lower Laurel Fm dolomite reservoirs. Sealed by Laurel Shale(?). Heterogeneous reseservoir quality)

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(Thermal evolution model of continental lithosphere at paleo-transform margin at SW side of Exmouth Plateau, NW Australia. Up to 3.5 km of sediments eroded from continental rim, decreasing to almost no erosion at 60 km from continent-ocean transform boundary. Surface elevation result of competing (1) thermal uplift, (2) surface erosion and (3) local isostatic rebound in response to erosion. Most erosion ceases by 40 Myrs after ridge emplacement and ~1000 km3 sediments eroded for every 10km of transform length)

MacNeill, M., N. Marshall & C. McNamara (2018)- New insights into a major Early-Middle Triassic rift episode in the NW Shelf of Australia. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts, 1, p. 1-5. *(Extended Abstract)*
(online at: www.publish.csiro.au/ex/pdf/ASEG2018abM3_3B)
(Prograding 'lava delta' complex interpreted from seismic within Triassic of Roebuck Basin (offshore Canning), under Huntsman 1 well. Steeply dipping clinoforms show NW to SE progradation. Volcanic package up to 10km thick, with pronounced magnetic anomaly. Within bigger scale rift complex, probably E-M Triassic magma plume that initiated triple junction at NW end of Canning basin/ Argo abyssal plain. Lavas possible source of Triassic zircons in Mungaroo Fm?)

McClure, I.M., D.N. Smith, A.F. Williams, L.J. Clegg & C.C. Ford (1988)- Oil and gas fields in the Barrow sub-basin. In: P.G. & R.R. Purcell (eds.) The North West Shelf, Australia, Proc. North West Shelf Symposium, Petroleum Expl. Soc. Australia (PESA), p. 371-390.
(Review of Barrow basin oil-gas fields: Barrow Island (1964), Harriet (1986), South Pepper/ North Herald (1987), Saladin, Chervil, Bambra (1982), Harriet and Rosette on E flank. On W side Gorgon (1980), W Tryal Rocks (1972), Spar (1976), etc.)

McHarg, S., A l'Anson & C. Elders (2018)- The Permian and Carboniferous extensional history of the Northern Carnarvon Basin and its influence on Mesozoic extension. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts, 1, p. 1-8. *(Extended Abstract)*
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2018abM3_1B)
(Paleozoic fault system of N Carnarvon Basin complex interaction of N to NE trending faults This older rift architecture affected geometry of subsequent U Triassic - M Jurassic deformation (initiated in Rhaetian, but most significant in E Jurassic))

Muller, R.D., S. Dyksterhuis & P. Rey (2012)- Australian paleo-stress fields and tectonic reactivation over the past 100 Ma. Australian J. Earth Sci. 59, 1, p. 13-28.
(Changes in stress regime of Australian continent through time can be modelled by changing geometry and forces acting along boundaries of Indo-Australia and Paleo-Australian plate since E Cretaceous. Intraplate structural events may be caused by interaction of far field stress field with heterogeneous geology of Australia. Some intraplate suture zones of Australian continent particularly weak, i.e. faulted portions of NW Shelf and Flinders Ranges, which reactivated when favourable stress regimes existed)

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(online at: www.publish.csiro.au/ex/pdf/ASEG2018abT5_1B)
(Ungani and Yulleroo fields oils derived from Carboniferous source. Maximum burial and oil generation/ expulsion in basin immediately prior to Fitzroy Uplift around 200 Ma))

Nelson, A.W. (1993)- Wrench and inversion structures in the Timor Sea region. Petroleum Expl. Soc. Australia (PESA) Journal 21, p. 3-30.
(Structures in Timor Sea area can be described in terms of compound wrench-duplex structures involving subsequent normal and reverse inversion, resuling from wrench episodes from E Triassic- Present)

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(online at: https://d28rz98at9flks.cloudfront.net/70371/Chart_36_Northern_Carnarvon_Basin.pdf)

Nicoll, R.S., J.M. Kennard, A.P. Kelman, D.J. Mantle, J.R. Laurie & D.S. Edwards (2009) Browse Basin biozonation and stratigraphy, Chart 32. Geoscience Australia, Canberra.
(online at: https://d28rz98at9flks.cloudfront.net/70371/Chart_32_Browse_Basin.pdf)
(Carboniferous- Recenet biozonations and stratigraphic columns of Browse Basin (Ashmore Platform, Brecknock- Scott Reef trend, Caswell-Barcoo subbasin, Prudhoe Terrace and Yampi/ Leveque Shelf (also 2016 edition?))

Nicoll, R.S., J.M. Kennard, J.R. Laurie, A.P. Kelman, D.J. Mantle & D.S. Edwards (2009)- Bonaparte Basin biozonation and stratigraphy, 2009, Chart 33. Geoscience Australia, Canberra.
(online at: https://d28rz98at9flks.cloudfront.net/70371/Chart_33_Bonaparte_Basin.pdf)

Palu, T.J., L.S. Hall, D. Edwards, E. Grosjean, N. Rollet, C. Boreham, T. Buckler et al. (2017)- Source rocks and hydrocarbon fluids of the Browse Basin. AAPG/SEG 2017 Int. Conf. Exhib., London, Search and Discovery Art. 11028, 9 p. *(Abstract + Posters)*
(online at: www.searchanddiscovery.com/documents/2017/11028palu/ndx_palu.pdf)
(Four Mesozoic petroleum systems identified in Caswell sub-basin. Source rocks in subbasin sufficient maturities to have transformed most of kerogen into hydrocarbons, with most expulsion from Late Cretaceous- Present. In Barcoo Sub-basin only source rocks within the J10–J20 supersequences sufficient maturity for generation. Predominantly gas-prone kerogen in Jurassic-Cretaceous)

Parra-Garcia, M., G. Sanchez, M.C. Dentith & A.D. George (2014)- Regional structural and stratigraphic study of the Canning Basin, Western Australia. Geol. Survey Western Australia, Perth, Report 140, p. 1-215.
(online at: http://geodocs.dmp.wa.gov.au/search.jsp?cabinetId=1101&Combined=N14U)

Paschke, C.A., G. OöHalloran, C. Dempsey & C. Hurren (2018)- Interpretation of a Permian conjugate basin margin preserved on the outer Northwest Shelf of Australia. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts, 1, p. 1-8. *(Extended Abstract)*
(online at: http://www.publish.csiro.au/ex/pdf/ASEG2018abM3_2B)
(Major Carboniferous-Permian intra-continental rift in approximate locations of Jurassic-Cretaceous rift margin that separated Australia from various Asian terranes and India. Intracontinental rift structurally modified by later M Permian extension. Shallow marine conditions persisted across conjugate margin through Triassic and into Jurassic. With S to N back-stepping Late Permian carbonate ramps. With 300Ma plate restoration)

Rankey, E.C. (2017)- Seismic architecture and seismic geomorphology of heterozoan carbonates: Eocene-Oligocene, Browse Basin, Northwest Shelf, Australia. Marine Petroleum Geol. 82, p. 424-443.
(Eocene-Oligocene heterozoan carbonate strata from Browse Basin defines progradation of nearly 10 km. Sigmoidal to tangential oblique clinoforms, 350-650m high and max. gradients of 8-18°. Patterns reflect prolific heterozoan production across shelf during periods of rising and high base level when the shelf flooded)

Reeve, M.T., C.AL. Jackson, R.E. Bell, C. Magee & I.D. Bastow (2016)- The stratigraphic record of prebreakup geodynamics: Evidence from the Barrow Delta, offshore Northwest Australia. Tectonics 35, 8, p. 1935-1968.
(online at: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2016TC004172)
(E Cretaceous Barrow Group of offshore N Carnarvon Basin was major deltaic system, formed during late stages of continental rifting. Three major depocenters: Exmouth and Barrow subbasins and S Exmouth Plateau. Overcompaction of pre-Cretaceous sediments in S Carnarvon Basin and pervasive reworking of Permian and Triassic palynomorphs in Barrow Group, suggests onshore S Carnarvon Basin originally contained thicker sedimentary succession that was uplifted and eroded prior to breakup. Anomalously rapid tectonic subsidence during Barrow Gp deposition, despite minimal contemporaneous upper crustal extension, suggests period of depth-dependent extension or dynamic topography preceding breakup)

Rek, A., S. Kleffmann & S. Khan (2003)- Petroleum prospectivity of the northern Exmouth Plateau. Petroleum Expl. Soc. Australia (PESA) News 62, p. 48-51.

(Exmouth Plateau commonly perceived to be gas-prone province (giant gas fields at Scarborough, Jansz, Gorgon, etc.). N Exmouth plateau still significant resource potential)

Rinke-Hardekopf, L., S. Back, L. Reuning & J. Bourget (2016)- Channel-levee systems in a tropical carbonate slope environment and the influence of syn-sedimentary deformation, Browse Basin, Australian North-West Shelf. AAPG 2016 Ann. Con. Exhib., Calgary, Search and Discovery Article 10901, 14p. *(Abstract and Presentation)*
(Miocene of Browse Basin with one of largest Neogene tropical paleo-barrier reef systems. M-L Miocene carbonate slope with multiple channel and channel-levee complexes. Mature stage larger channel-systems 12->20km long, with 150- >200m incision depth. Some channels with levee complexes up to 850m wide)

Rohead-OôBrien, H. & C. Elders (2018)- Controls on Mesozoic rift-related uplift and syn-extensional sedimentation in the Exmouth Plateau. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts, 1, p. 1-8. *(Extended Abstract)*
(online at: http://www.publish.csiro.au/EX/ASEG2018abM2_2B)
(Exmouth Plateau of N Carnarvon Basin, NW Australia, multi-phase extensional history. Initially formed as basin during Permo-Carboniferous rifting event that thinned crust and led to large volumes of Triassic sediment accumulatation. Fault activity of second rift phase began in latest Triassic, mainly on NNE-SSW and NE-SW trending faults. Rotation of Triassic fault blocks continued in Jurassic, with erosion of pre-rift sediments. Latest Jurassic infilled of half-grabens and deposition onto highs limited in W as area was starved of sediment. E Cretaceous progradation of Barrow Delta resulted in infilling of previously starved half-grabens)

Rollet, N., D. Edwards, E. Grosjean, T. Palu, S. Abbott, M. Lech, J. Totterdell, D. Nguyen et al. (2017)- Reassessment of the petroleum prospectivity of the Browse Basin, offshore North West Australia. In: SE Asia Petroleum Expl. Soc. (SEAPEX) Exploration Conf. 2017, Singapore, Session 3, 35p. *(Abstract + Presentation)*
(Browse Basin with large gas-condensate accumulations and small light oil accumulations mostly in Cretaceous. Large undeveloped gas resources (41 TCF), development of Ichthys and Prelude fields. Seven supersequences from late Tithonian- Maastrichtian (K10-K60))

Rollet, N., D. Edwards, E. Grosjean, T. Palu, L. Hall, J. Totterdell, C. Boreham & A. Murray (2018)- Regional Jurassic sediment depositional architecture, Browse Basin: Implications for petroleum systems. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts, 1, p. 1-8. *(Extended Abstract)*
(online at: www.publish.csiro.au/ex/pdf/ASEG2018abM1_3B)
(Review of sequence stratigraphy of J10-J20 (Plover Fm) and J30-J50+ K10 (Vulcan Fm) supersequences, and paleogeography of Browse Basin. Large gas-condensate fields along Scott Reef Trend (Calliance, Brecknock, Torosa), in C and NW Caswell subbasin (Ichthys, Prelude, Crown, Proteus, Lasseter), and in Crux field in Heywood Graben, sourced from multiple horizons in Jurassic- basal Cretaceous)

Rollet, N., E. Grosjean, D. Edwards, T. Palu, S. Abbott, J., Totterdell, M.E. Lech, K. Khider et al. (2016)- New insights into the petroleum prospectivity of the Browse Basin: results of a multi-disciplinary study. The APPEA J. 56, 1, p. 483-494.
(Browse Basin hosts large gas accumulations. Drilling focused in C Caswell Sub-basin (Ichthys, Prelude), and Brecknock-Scott Reef Trend. New sequence stratigraphy of Cretaceous succession and structural framework. Complex charge history, with fluids from multiple Mesozoic source rocks (Lw- M Jurassic J10-J20, Plover Fm), U Jurassic- lowermost Cretaceous J30-K10, Vulcan Fm) and Lower Cretaceous K20-K30, Echuca Shoals Fm))

Smith, B.L. & R.B. Lawrence (1989)- Aspects of exploration, development of Vulcan sub-basin, Timor Sea. Oil and Gas J. 87, p. 44; 33-46

Swift, M.G., H.M J. Stagg & D.A. Falvey (1988)- Heat flow regime and implications for oil maturation and migration in the offshore northern Carnarvon Basin. In: P.G. & R.R. Purcell (eds.) The North West Shelf, Australia. Proc. North West Shelf Symposium, Petroleum Expl. Soc. Australia (PESA), p. 539-551.

(Present day heat-flow distribution in Exmouth Plateau region compiled from seabed measurements and oil wells. Area of high heat-flow (~90 mW/m2) near Barrow Island, decreasing W-ward to moderate-low (as low as 17 mW/ 1m2) over center of Exmouth Plateau. Some process diverting heat away from Exmouth Plateau Arch)

Symonds, P.A., C.D.N. Collins & J. Bradshaw (1994)- Deep structure of the Browse Basin: implications for basin development and petroleum exploration. In: P.G. & R.R. Purcell (eds.) The sedimentary basins of Western Australia, Proc. Petroleum Expl. Soc. Australia (PESA) Symposium, Perth, p. 315-331.
(Primary architecture of Browse Basin of Australian NW Shelf largely result of NE-SW ?Late Devonian- E Carboniferous intra-cratonic upper crustal extension, and NW-N-oriented M Carboniferous- E Permian full-lithosphere extension. Up to 11 km of sediment fill. During extension, crust beneath Browse thinned from 35 km to 10km by removal and stretching of upper and lower crust, leaving mid-crust largely intact. Later deformation events: Late Permian- E Triassic (Bedout Movement), M-L Triassic, and Late Triassic- E Jurassic (Fitzroy Movement) inversion events, post-breakup (Callovian-Oxfordian) margin sag, and ?Late Miocene transpressional anticlines in some areas)

Tesch, P., R.S. Reece, M.C. Pope & J.R. Markello (2018)- Quantification of architectural variability and controls in an Upper Oligocene to Lower Miocene carbonate ramp, Browse Basin, Australia. Marine Petroleum Geol. 91, p. 432-454.

Then, J., M. Wilson, I. Copp, M. Buschkuehle & R. Carey (2018)- Depositional, diagenetic and mineralogical controls on porosity development in the Ungani Field, Canning Basin. In: Proc. Australian Exploration Geoscience Conf. (AEGC 2018), Sydney, ASEG Extended Abstracts 2018, 1, p. 1-8. *(Extended Abstract)*
(online at: www.publish.csiro.au/ex/pdf/ASEG2018abT5_3B)
(E Carboniferous Tournaisian Dolomite reservoir in Ungani field on S flank of Fitzroy Trough. Fractured and bioclastic-rich with 'reefal' organisms, but with pervasive dolomitisation. Shallow-moderate burial and marine or evaporative reflux fluids likely responsible for pervasive dolomitisation. Subsequent leaching of calcite)

Thompson, N.B., C. Buessenschuett, L. Clydsdale, C.J. Cubitt, R.C. Davis, M.K. Johnson et al. (2003)- The North West Shelf of Australia- a Woodside perspective. Proc. 2003 SE Asia Petrol. Expl. Soc.(SEAPEX) Exploration Conf., Singapore, p. 1-43.
(Major review of evolution of NW Shelf of Australia, a major Mesozoic gas province with minor oily sweet spots. Since exploration drilling started in 1953, 754 exploration wells drilled (Dec 2001), discovering 2.6 billion bbls of oil, 2.6 billion bbls of condensate and 152 TCF gas in 233 fields. Most of traps sands in rift-related horsts and tilted blocks, or sands in overlying drape structures. 97% of resources reservoired under dominantly Cretaceous regional seal. Same as Longley et al. 2002)

Thompson, N.B., M.L. Taylor & N.C. Taylor (1998)- Reservoir geology of the Perseus Field, North West Shelf, Australia. In: P.G. & R.R. Purcell (eds.) The sedimentary basins of Western Australia 2, Proc. Petroleum Expl. Soc. Australia (PESA) Symposium, Perth, p. 527-534.
(Perseus Field giant gas accumulation, in structural/stratigraphic trap on Rankin Trend. Gas reservoired in Bathonian- Callovian deltaic sandstones of Legendre Formation, which subcrop U Jurassic-Lower Cretaceous Main Unconformity in graben between Goodwyn and North Rankin horsts. Six third-order sequences within W. digitata, W. indotata and C. halosa dinoflagellate zones)

Tortopoglu, B. (2015)- The structural evolution of the northern Carnarvon Basin, northwest Australia. M.Sc. Thesis, Colorado School of Mines, Golden, p. 1-170.
(N Carnarvon Basin rift-dominated basin, with five phases of extension (Pre-Top Permian, Top Permian, Base Jurassic, Middle Jurassic, and Late Jurassic) and the Base Cretaceous inversion. Magnitude of rift phases increased during M and Late Jurassic extension)

Tovaglieri, F. (2013)- Depositional history and paleogeography of the Jurassic Plover Formation in Calliance and Brecknock fields, Browse Basin, North West Shelf, Australia: Ph.D. Thesis, University of Western Australia, p. 1-361 + Enclosures.
(online at: research-repository.uwa.edu.au/files/3245318/Tovaglieri_Federico_2013_Part_1.pdf)

(Sequence stratigraphc framework of E-M Jurassic Plover reservoirs in Calliance and Brecknock fields)

Tovaglieri, F. & A.D. George (2012)- Sedimentology and image-log analysis of the Jurassic deltaic Plover Formation, Browse Basin, Australian North West Shelf. AAPG Ann. Conv. Exhib., Long Beach, Search and Discovery Art. 50714, 19p. *(Abstract + Presentation)*
(online at: http://www.searchanddiscovery.com/documents/2012/50714tovaglieri/ndx_tovaglieri.pdf)
(Plover Fm E-M Jurassic syn-rift deltaic system, with 5 second-order sequences of ~5-9 Ma duration)

Tovaglieri, F. & A.D. George (2014)- Stratigraphic architecture of an Early-Middle Jurassic tidally influenced deltaic system (Plover Formation), Browse Basin, Australian North West Shelf. Marine Petroleum Geol. 49, p. 59-83.
(Stratigraphic architecture and evolution of major E-M Jurassic fluvio-deltaic system (Plover Fm). Five 3rd-order sequences record progradational (S1, S2 and S4) and retrogradational (S3 and S5) phases of delta evolution. Common S-directed sediment dispersal in S2 and S3 and increasingly complex with W-directions in S4 and S5. Two rift-related depositional phases separated by phase of uplift between S3- S4. See also corrigendum in Vol. 54, p. 139-140)

Tyler, I.M., R.M. Hocking & P.W. Haines (2012)- Geological evolution of the Kimberley region of Western Australia. Episodes 35, 1, p. 298-306.
(online at: www.episodes.org/index.php/epi/article/viewFile/59916/46873)
(History of Kimberley cratonic region in NW Australia began in Paleoproterozoic with rifting along N Australian Craton margin at 1910-1880 Ma, followed by plate collision as part of 1870-1790 Ma events that formed Diamantina Craton within supercontinent Nuna (Hooper Orogeny, Halls Creek Orogeny, etc.))

Van Aarssen, B.G.K., R. Alexander & R.I. Kagie (1998)- Higher plant biomarkers on the North West Shelf: application in stratigraphic correlation and palaeoclimate reconstruction. In: P.G. & R.R. Purcell (eds.) The sedimentary basins of Western Australia 2, Proc. Petroleum Expl. Soc. Australia (PESA) Symposium, Perth, p. 123-128.
(Biomarkers(retene, cadene, etc.) tied to higher land plants in Middle-Late Jurassic sequences on NW Shelf. Results show significant climate change in Oxfordian, probably led to dominance of conifer type trees. Palaeoclimate in Carnarvon Basin changed in cyclic fashion during Jurassic, coinciding with second-order sea level changes)

Van Aarssen, B.G.K., R. Alexander & R.I. Kagie (1998)- Molecular indicators for palaeoenvironmental changes. Petroleum Expl. Soc. Australia (PESA) Journal 26, p. 98-105.
(Similar to Van Aarssen et al. 1998, above)

Van Tuyl, J., T.M. Alves & L. Cherns (2018)- Pinnacle features at the base of isolated carbonate buildups marking point sources of fluid offshore Northwest Australia. Geol. Soc. America (GSA) Bull., 19p. *(in press)*
(online at: https://pubs.geoscienceworld.org/gsa/gsabulletin/article/530065/pinnacle-features-at-the-base-of-isolated)
(Seismic data show most Late Oligocene-Miocene isolated carbonate buildups in Browse Basin underlain by bright spots, dim spots and other evidence of fluid accumulation, suggesting buildups formed preferentially on pinnacles formed by mud volcanoes or methanogenic carbonates)

Van Tuyl, J., T.M. Alves & L. Cherns (2018)- Geometric and depositional responses of carbonate build-ups to Miocene sea level and regional tectonics offshore Northwest Australia. Marine Petroleum Geol. 94, p. 144-165.
(online at: https://www.sciencedirect.com/science/article/pii/S0264817218300801)
(Geometric/depositional responses of carbonate build-ups to Miocene sea-level change and regional tectonics from seismic data in Browse Basin and outcrops of Cariatiz Reef, SE Spain. Five Miocene sequence boundaries. Growth patterns suggest Messinian structural partitioning across Browse Basin, with local deformation associated with plate collision focused on preferentially oriented faults)

Woods, E.P. (1994)- A salt-related detachment model for the development of the Vulcan Sub-basin. In: P.G. & R.R.Purcell (eds.) The sedimentary basins of Western Australia, Proc. Petroleum Expl. Soc. Australia (PESA) Symposium, p. 259-274.
(Late Jurassic extensional structuring in Vulcan sub-basin (between Browse and Bonaparte) at or immediately after time of continental breakup to W. Deep salt layer (Silurian- Devonian?) may act as detachment surface. Salt-related detachment explains nature of deep grabens at Swan and Paqualin and also occurrence of salt diapirs in these grabens (627m in Paqualin 1 well, Swan diapir). Renewed normal faulting, tied to Timor collision, began in Late Miocene, peaking in Pliocene, not active today)

Wulff, K.J. (1992)- Depositional history and facies analysis of the Upper Jurassic sediments in the eastern Barrow Subbasin. The APEA Journal 32, 1, p. l04-122.

Wulff, K. & P. Barber (1995)- Tectonic controls on the sequence stratigraphy of Late Jurassic fan systems in the Barrow-Dampier Basin, North West Shelf. Australia. Petroleum Expl. Soc. Australia (PESA) Journal 23, p. 77-89.
(U Jurassic syn-rift sediments in Barrow-Dampier Basin subdivided into nine depositional sequences. Sequence boundary development related to tectonically-induced changes in basin architecture, associated with continental break-up of E Gondwanaland. Callovian-Oxfordian deposition whilst Barrow and Dampier were two separate sub-basins separated by intra-basinal arch; Kimmeridgian-Tithonian deposits more widespread)

Yeates, A.N., D.L. Gibson, R.R. Towner and R.W.A. Crowe (1984)- Regional geology of the onshore Canning Basin, W.A.. In: The Canning Basin, Western Australia, Petroleum Expl. Soc. Australia (PESA), p. 23-55.
(Onshore Canning Basin (W Australia) history began in E Ordovician ands largely completed by E Cretaceous. Up to M Triassic sedimentation in NW-trending depocenters; Jurassic-Cretaceous sequence relates to break-up of Gondwanaland, and global E Cretaceous rise in sea level)

Yang, X.M. & C. Elders (2016)- The Mesozoic structural evolution of the Gorgon Platform, North Carnarvon Basin, Australia. Australian J. Earth Sci. 63, 6, p. 755-770.
(Gorgon Platform on SE edge of Exmouth Plateau in N Carnarvon Basin. Four major sets of extensional faults, controlled by three different extensional events in E-M Jurassic, Late Jurassic and E Cretaceous, all creating unconformities)

IX.16. NE Australia margin ('Tasmanides') (20)

Babaahmadi, A., R. Sliwa, J. Esterle & G. Rosenbaum (2017)- The development of a Triassic fold-thrust belt in a synclinal depositional system, Bowen Basin (eastern Australia). Tectonics 36, p. 51-77.
(Decollements and resultant structures likely developed in response to mild contraction of E- C Bowen Basin synclinal depositional system during last phase of Permian-Triassic Hunter-Bowen orogeny)

Babaahmadi, A., R. Sliwa, J. Esterle & G. Rosenbaum (2017)- The evolution of a Late Cretaceous- Cenozoic intraplate basin (Duaringa Basin), eastern Australia: evidence for the negative inversion of a pre-existing foldï thrust belt. Int. J. Earth Sciences , p 1-16. *(in press)*
(Duaringa Basin in E Central Queensland is Late Cretaceous?- Paleogene basin (with M-L Eocene oil shales) that developed simultaneously with opening of Tasman and Coral Seas. Basin overlies Permian-Triassic fold-thrust belt. NNW-striking, NE-dipping Duaringa main boundary fault probably inversion of Triassic thrust)

Dixon, D.A. & G.J. Pope (1987)- Oil shale of the Duaringa Basin, Central Queensland. Fuel 66, 3, p. 305-308.
(Extensive oil shale deposits in Cenozoic Duaringa Basin of C Queensland. NNW-trending, 180 x 20km half-graben, superimposed on deformed E margin of Permo-Triassic Bowen Basin. Up to 1300m of flat-lying fluvio-lacustrine sediments, with oil shale of M-L Eocene age in two near-surface seams (Rundle and Stuart oil shale deposits) (see also Pope 2000))

Exon, N.F., P.J. Hill, Y. Lafoy, G. Burch, A. Post, C. Heine, P. Quilty, R. Howe & L. Taylor (2005)- The geology of the Kenn Plateau off northeast Australia: results of the Southern Surveyor Cruise SS5/2004 (Geoscience Australia Cruise 270). Geoscience Australia, Canberra, Record 2005/4, p. 1-172.
(online at: https://d28rz98at9flks.cloudfront.net/61747/Rec2005_004.pdf)
(In Late Cretaceous Kenn Plateau was part of Maryborough Basin to W and Capricorn Basin to N. It separated from Australia in earliest Paleocene- M Eocene by moving NE along Cato Fault Zone and rotating 45° CCW).

Fergusson, C.L. (2018)- Subduction accretion and orocline development in modern and ancient settings: implications of Japanese examples for development of the New England Orogen of eastern Australia. J. Geodynamics, p. *(in press)*
(Texas Orocline in S New England Orogen of E Australia nucleated during subduction of seamount chain, resulting in orogenic curvature of Carboniferous subduction complex. Subduction of seamount chain shown by abundant limestone associated with ocean island basalts amongst accreted turbidites in core of orocline)

Fielding, C.R., M.A. Martin & K.L. Bann (2015)- Stratigraphy and sedimentology of the Permian succession in the Southwest Bowen Basin, Queensland. In: Proc. Eastern Australian Basins Symposium (EABS), Petroleum Expl. Soc. Australia (PESA), p. 13-27.

Gibson, P.J. (1989)- Petrology of two Tertiary oil shale deposits from Queensland, Australia. J. Geol. Soc., London, 146, 2, p. 319-331.
(In E Central Queensland series of small E Paleogene rift basins with M-L Eocene lacustrine oil shale deposits. Petrography of oil shales in Lowmead and Duaringa Basins)

Glen, R.A., E. Belousova & W.L. Griffin (2016)- Different styles of modern and ancient non-collisional orogens and implications for crustal growth: a Gondwanaland perspective. Canadian J. Earth Sciences 53, 11, p. 1372-1415.
(online at: http://www.nrcresearchpress.com/doi/pdf/10.1139/cjes-2015-0229)
(Review of non-collisional, convergent margin orogens, commonly called accretionary orogens. Along margin of Australian Plate, Papua New Guinea accretionary orogen, SW Pacific Orogen, Tasmanides (Lachlan Orogen, outboard New England Orogen), etc. All non-collisional orogens involve continental growth, but only New England Orogen and to lesser extent New Guinea Orogen involve significant crustal growth)

Hashimoto, T., N. Rollet, K. Higgins, G. Bernandel & R. Hackney (2008)- Capel and Faust Basins: preliminary assessment of an offshore deepwater frontier region. In: J.E. Blevin et al. (eds.) Eastern Australasian Basins

Symposium III- Energy security for the 21st century, Sydney, Petroleum Expl. Soc. Australia (PESA), Spec. Publ., p. 311-315.
(Capel and Faust basins at NE margin of Tasman oceanic basin, between E Australia and New Caledonia at water depths of 1300-2500m. New data acquired by Geoscience Australia)

Hoffmann, K.L., N. F. Exon, P. G. Quilty & C. S. Findlay (2008)- Mellish Rise and adjacent deep water plateaus off northeast Australia: new evidence for continental basement from Cenozoic micropalaeontology and sedimentary geology. Proc. Eastern Australian Basins Symposium III Sydney, Petroleum Expl. Soc. Australia (PESA), p. 317-323.
(Mellish Rise, E of Queensland Plateau, buoyant block of continental crust in SW Pacific, in water depths ~1500- 2900m. Paleocene- Quaternary sediments in dredge samples. Common manganese crusts and nodules. Late Eocene tropical larger foram Biplanispira in dredge sample first in Australasian waters (but not figured))

Hoy, D. & G. Rosenbaum (2017)- Episodic behavior of Gondwanide deformation in eastern Australia: insights from the Gympie Terrane: episodic Gondwanide orogeny in Australia. Tectonics 36, 8, p. 1497-1520.
(Earliest deformation of Gympie Terrane of E Australia during final pulse of Permian- Triassic Hunter-Bowen orogenesis (235-230 Ma; ~ Carnian). No evidence for crustal suture, suggesting terrane accretion not main mechanism behind deformation. Gondwanide Orogeny more likely linked to plate-reorganization)

John, C.M., G.D. Karner, E. Browning, R.M. Leckie, Z. Mateo, B. Carson & C. Lowery (2011)- Timing and magnitude of Miocene eustasy derived from the mixed siliciclastic-carbonate stratigraphic record of the northeastern Australian margin. Earth Planetary Sci. Letters 304, p. 455-467.
(online at: https://www.geo.umass.edu/faculty/leckie/John%202011%20EPSL%20Marion%20SL.pdf)
(Marion Plateau carbonate platform 8 sequences (18.0, 17.2, 16.5, 15.4, 14.7, 13.9, 13.0, 11.9 Ma), controlled by glacio-eustasy as demonstrated by increases in δ18O (= deep-sea Miocene isotope events Mi1b, Mbi-3, Mi2, Mi2a, Mi3a, Mi3, Mi4, and Mi5), reflecting increased ice volumes primarily on Antarctica. Backstripping estimates combined with δ18O estimates yields sea-level fall amplitudes of 27m at 16.5 and at 15.4 Ma, 33m at 14.7 Ma, 59± 6 m at 13.9 Ma. Sea-level fell by 53-69 m between 16.5-13.9 Ma. Implies >90% of E Antarctic Ice sheet formed during M Miocene)

Korth, J. (1987)- Analytical studies on Australian oil shales. Ph.D. Thesis, University of Wollongong, p. 1-328.
(online at: http://ro.uow.edu.au/theses/1110)
(Analyses of M-L Eocene lacustrine oil shales of upper and lower seams of Duaringa deposit, Queensland. Telalginite (torbanite) with common green algae Botryococcus, Tasmanites and Gloeocapsomorpha; lamalginite (lamosite) mainly with planktonic Pediastrum)

Lindner, A.W. (1983)- Geology and geochemistry of some Queensland Tertiary oil shales. In: Symposium on Geochemistry and chemistry of oil shale, Seattle, p. 10-19.
(online at: https://web.anl.gov/PCS/acsfuel/preprint%20archive/Files/28_3_SEATTLE_03-83_0010.pdf)
(Duaringa Tertiary basin in NE Queensland E Tertiary rift basin, related to Tasman Sea- Coral Sea rifting. With algal-rich lacustrine oil shales (lamosites). Highest grade in Rundle deposits; 25-161m thick (see also Dixon 1987)

Pope, G.J. (2000)- An application of sequence stratigraphy in modelling oil yield distribution, the Stuart oil shale deposit, Queensland, Australia. M.Sc. Thesis Queensland University of Technology, p. 1-121.
(online at: https://eprints.qut.edu.au/16145/1/Graham_Pope_Thesis.pdf)
(M-L Eocene lacustrine oil shales of Stuart deposit in Rundle Fm of Duaringa half-graben, C Queensland coast)

Rey, P.F. & R.D. Muller (2008)- Late Cretaceous-Paleocene evolution of the East Gondwana margin, a new dynamic model for the formation of marginal basins. In: J.E. Blevin et al. (eds.) Eastern Australasian Basins Symposium III- Energy security for the 21st century, Sydney, Petroleum Expl. Soc. Australia (PESA), Spec. Publ., p. 267-269.
(At ~100 Ma E Gondwana cordillera started oceanward gravitational collapse, until opening of Tasman Sea from ~90 to 52 Ma. Collapse of cordilleran orogens, marginal basin opening and detachment of micro-

continents often considered consequence of slab rollback, but along E Gondwana margin Late Cretaceous change in plate motion probably caused switch from contractional to extensional tectonics)

Shaanan, U. & G. Rosenbaum (2018)- Detrital zircons as palaeodrainage indicators: insights into southeastern Gondwana from Permian basins in eastern Australia. Basin Research 30, Suppl. 1, p. 36-47.
(U-Pb ages from detrital zircon grains from E Permian sediments (~290-297 Ma) in southern New England Orogen. Over 80% of ages Late Carboniferous, from adjacent forearc sediments. Pre-Devonian detritus from SE Gondwanan craton, with peaks of 2000-1500 Ma, 1200-900 Ma (Grenvillian) and. 620-480 Ma)

Shaanan, U., G. Rosenbaum, D. Hoy & N. Mortimer (2018)- Late Paleozoic geology of the Queensland Plateau (offshore northeastern Australia. Australian J. Earth Sciences 65, 3, p. 357-366.
(Queensland Plateau (off NE Australia) submerged continental block. Detrital zircons from two drill cores that penetrated Paleozoic metasedimentary strata (ODP Leg 133) provide maximum depositional ages of ~319 and 299 Ma. Queensland Plateau probably formed in backarc basin, NE continuation of New England Orogen and/or E Australian Rift System)

Verard, C. & G.M. Stampfli (2013)- Geodynamic reconstructions of the Australides-1: Palaeozoic. Geosciences 3, 2, p. 311-330.
(online at: www.mdpi.com/2076-3263/3/2/311)
(Plate reconstruction of Australides (Australia-Antarctica-proto-Pacific) system from 600-200 Ma. Most geodynamic units of Australides exotic in origin, and many tectonic events of Delamerian Cycle, Lachlan SuperCycle, and New England SuperCycle regarded as occurring offshore Gondwana)

Verard, C. & G.M. Stampfli (2013)- Geodynamic reconstructions of the Australides-2: Mesozoicï Cainozoic. Geosciences 3, 2, p. 331-353.
(online at: www.mdpi.com/2076-3263/3/2/331)
(Plate reconstruction model of area between Pacific, Australian and Antarctic plates since 200 Ma)

X. PALEONTOLOGY, BIOSTRATIGRAPHY (483)

X.1. Quaternary-Recent faunas-microfloras and distribution (115)

Adisaputra, Mimin K. (2000)- Late Neogene planktonic foraminiferal biostratigraphy of two cores in Timor waters, Indonesia. Majalah Geologi Indonesia 24, 1, p. 39-50.

Adisaputra, Mimin K. & M. Hendrizan (2011)- Foraminifera perairan Balikpapan, Kalimantan Timur: lingkungan pengendapan dan pengaruhnya. J. Geologi Kelautan 9, 2, p. 119-133.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/205/195)
('Foraminifera from waters off Balikpapan, East Kalimantan: depositional environment and its effects'. 195 benthic and 34 planktonic foraminifera species in Makassar Straits seafloor samples off Balikpapan, between 18-562m depth. Asterorotalia trispinosa dominant around 20m, Heterolepa praecincta most abundant from ~50-300m, Karreriella brady and Uvigerina spp. common only >300m, etc. Cycloclypeus only at 71 and 83m. Abundant planktonic foraminifera Neogloboquadrina dutertrei below 100m, indicating rel. low salinity.)

Amijaya, H., Ngisomuddin & Akmaluddin (2010)- Characterization of July 17, 2006 tsunamiite at South coast of West Java. J. Southeast Asian Applied Geol. (UGM) 2, 1, p. 35-39.
(online at: https://journal.ugm.ac.id/index.php/jag/article/viewFile/7232/5672)
(Deposits of July 26 tsunami at Pangandaran Beach, W Java. Mainly f-m sand, ~10-12cm thick, separated from older beach sediment by erosional surface. Sedimentary structures parallel lamination and current ripples. No vertical fining trends. With transported shallow and deeper marine benthic foraminifera, incl. Ammonia, Elphidium, Amphistegina, Cibicides sp., Biginerina, Bolivina, Bathysiphon, Nodosaria and Quinqueloculina)

Anderson, J.A.R. (1963)- The flora of the peat swamp forests of Sarawak and Brunei, including a catalogue of all recorded species of flowering plants, ferns and fern allies. Singapore Gardens Bull. 20, p. 131-228.
(All modern coastal and deltaic peat swamps of N Borneo raised bog type. 243 plant/tree species, in 6 communities: 1) Mixed swamp forest, 2) Alan forest, 3) Alan bunga forest, 4) High pole forest, 5) Low pole forest, 6) Padang keruntum)

Aswan, Y. Zaim & Y. Rizal (2006)- Distribution of Quarternary freshwater molluscs fossils in Jawa. In: Y. Zaim et al. (eds.) S. Sartono: dari hominid ke delapsi dengan kontroversi, Penerbit ITB, Bandung, Chapter 9, p. 109-120.

Auliaherliaty, L., K.T. Dewi & Y.A. Priohandono (2004)- Foraminifera di Teluk Sepi- Blongas, Lombok selatan, Nusa Tenggara Barat dan kaitannya dengan faktor lingkungan. J. Geologi Kelautan 2, 3, p. 1-8.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/115/105)
(Seafloor sediment samples of 1-78m in Sepi-Blongas Bay, S Lombok, with 133 foraminiferal species, mainly Ammonia beccarii, Elphidium crispum, Pattelina, Amphistegina lessonii, Calcarina, Pyrgo, Quinqueloculina, etc.. Genus Calcarina with 15 species (?))

Baccaert, J. (1976)- Soritidae of the Lizard Island reef complex: a preliminary report. Annales Soc. Geologique Belgique 99, p. 237-262.
(Eight species of soritids, incl. Marginopora vertebralis)
(online at: http://popups.ulg.ac.be/0037-9395/index.php?id=5368&file=1&pid=5366)

Baccaert, J. (1986)- Foraminiferal bio- and thanatocoenoses of reef flats, Lizard Island, Great Barrier Reef, Australia: nature of substrate. Annales Soc. Royale Zoologique Belgique 116, 1, p. 3-14.

Baccaert, J. (1987)- Distribution patterns and taxonomy of benthic foraminifera in the Lizard Island reef complex, northern Great Barrier Reef, Australia. Ph.D. Thesis, Universite de Liege, 3 vols., 146p, 290p.

Chen, C. & H.L. Lin (2017)- Applying benthic foraminiferal assemblage to evaluate the coral reef condition in Dongsha Atoll lagoon. Zoological Studies 56, 20, p. 1-16.

(online at: http://zoolstud.sinica.edu.tw/Journals/56/56-20.pdf)
(Recent foraminifera distribution in Dongsha Atoll, northern S China Sea. Porcelaneous foraminifera dominant (76%, 48 species, miliolids). Fourteen hyaline species (incl. common Calcarina))

Cleary, D.F.R., L.E. Becking, N.J. de Voogd, W. Renema, M. de Beer, R.W.M. van Soest & B.W. Hoeksema (2005)- Variation in the diversity and composition of benthic taxa as a function of distance offshore, depth and exposure in the Spermonde Archipelago, Indonesia. Estuarine Coastal Shelf Science 65, p. 557-570.

Cleary, D.F.R. & W. Renema (2007)- Relating species traits of foraminifera to environmental variables in the Spermonde Archipelago, Indonesia. Marine Ecology Progress Series 334, p. 73-82.
(Dinoflagellate symbionts and an orbitoidal chamber arrangement in foraminifera linked to exposed reefs and hard substrate, whereas rhodophyte symbionts linked to sheltered reefs and sandy substrate. Etc.)

Coustillas, F. (1983)- Les facies recents de la plate-forme orientale de Kalimantan (Indonesie) et leur contenu micropaleontologique (foraminiferes benthiques). Doct. Thesis Universite de Bordeaux, p. 1-188.
('Recent facies of the eastern platform of Kalimantan and the micropaleontological content (benthic foraminifera)')

Dawson, J.L., S.G. Smithers & Q. Hua (2014)- The importance of large benthic foraminifera to reef island sediment budget and dynamics at Raine Island, northern Great Barrier Reef. Geomorphology 222, p. 68-81.
(Larger foraminifera Baculogypsina sphaerulata, Marginopora and Amphistegina contribute 55% of calcareous sediment produced on Raine Island reef)

Dawson, S. (2007)- Diatom biostratigraphy of tsunami deposits: examples from the 1998 Papua New Guinea tsunami. Sedimentary Geol 200, 3-4, p. 328-335.
(Variable and often chaotic diatom assemblages can be attributed to tsunami waves incorporating and depositing diatoms from intertidal and offshore habitats during runup and subsequent backwash. Tsunami sand deposits have high % of broken diatom valves and dominance of centric (circular) species)

Dewi, K.T. (2014)- Ostracoda from subsurface sediments of Karimata Strait as indicator of environmental changes. Bull. Marine Geol. 29, 1, p. 1-10.
(online at: ejournal.mgi.esdm.go.id/index.php/bomg/article/download/60/61)
(43 species of ostracods from 3 short seafloor cores of Sunda Shelf, in water depth 11-27m. Highest abundance/ diversity in upper 70 cm of cores. Main genera Actinocythereis, Hemicytheridea, Loxoconcha, Neocytheretta, Stigmatocythere, Neomonoceratina, Phlyctenophora, Argillloecia, etc. (see also Mostafawi 1992))

Dewi, K.T., I. Adhirana, Y.A. Priohandono & L. Gustiantini (2016)- Ostracoda sebagai indikator perubahan lingkungan perairan sekitar PLTU Tarahan, Teluk Lampung, Sumatera. J. Geologi Kelautan 14, 1, p. 1-12.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/335/263)
('Ostracoda as indicators of marine environmental changes off the Tarahan power plant, Lampung Bay, Sumatera'. Ostracods from surface sediments in Lampung Bay quite diverse and abundant, with 27 genera, dominated by Keijella, Hemicytheridea and Cytherella. Also locally abundant Bairdopillata)

Dewi, K.T., N.C.D. Aryanto & Y. Noviadi (2007)- Land-sea interactions in coastal waters off NE Kalimantan: evidence from microfaunal communities. Bull. Marine Geol. 22, 1, p. 1-15.
(online at: ejournal.mgi.esdm.go.id/index.php/bomg/article/download/1/1)
(Microfauna in seafloor samples in 14-43m deep water off Nunukan and Sebatik islands in NE Kalimantan with typical microfauna of shallow marine ostracoda (Hemicytheridea spp., Keijella spp., Cytherella) and foraminifera (Asterorotalia trispinosa, Operculina))

Dewi, K.T. & E. Saputro (2013)- Sebaran spasial foraminifera dalam kaitannya dengan kedalaman laut dan jenis sedimen di Teluk Bone, Sulawesi Selatan. J. Geologi Kelautan 11, 3, p. 165-173.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/240/230)

('Spatial distribution of foraminifera in relation to water depth and sediment types in Bone Bay, S Sulawesi'. Foraminifera from 23-85m water depth in N Bone Bay mainly Operculina spp., Heterolepa, Pseudorotalia. Absence of 'Sunda species' Asterorotalia trispinosa)

Dharma, B. (2005)- Recent & fossil Indonesian shells. Conch Books, Hackenheim, p. 1-424.

Faiz, N.N., R. Omar, M.N. Abd Malek, C. Li & Y. Liu (2016)- Taburan dan kepelbagaian Foraminifera bentik di dalam sedimen permukaan sekitar delta Sungai Pahang, Pahang, Malaysia. Sains Malaysiana 45, 5, p. 669-676.
(online at: www.ukm.my/jsm/pdf_files/SM-PDF-45-5-2016/02%20Noraswana%20.pdf)
('The distribution and diversity of benthic Foraminifera in surface sediment of Pahang River Delta, Pahang, Malaysia'. 82 species of Recent benthic foraminifera offshore Pahang River delta. Amphistegina lessonii and A. gibbosa most abundant, followed by Elphidium advenum, Operculina ammonoides and Asterorotalia pulchella. No specifics on water depth of samples or detailed distribution)

Fajemila, O.T., M.R. Langer & J.H. Lipps (2015)- Spatial patterns in the distribution, diversity and abundance of benthic foraminifera around Moorea (Society Archipelago, French Polynesia). PLoS ONE 10, 12, e0145752, p. 1-25.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0145752
(380 species of shallow benthic foraminifera from around Moorea)

Fauzielly, L. (2013)- Distribusi vertikal Ostracoda dan hubungannya dengan perubahan lingkungan di perairan Teluk Jakarta. Bull. Scientific Contr. (UNPAD) 11, 2, p. 108-117.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8292/3839)
(Vertical distribution of ostracods and relationship with environmental changes in Jakarta Bay waters'. Similar to Fauzielly et al. (2012), below)

Fauzielly, L., L. Jurnaliah & A.H. Hamdani (2014)- Distribusi foraminifera bentonik sedimen paleo-tsunami letusan Gunung Krakatau berdasarkan data inti bor U-6 Di daerah Ujungkulon, Banten. Bull. Scientific Contr. (UNPAD) 12, 2, p. 84-91.
(online at: http://repository.unpad.ac.id/21772/1/Distribusi-foraminifera-bentonik-sedimen...)
('The distribution of benthic foraminifera in sedimentary paleo-tsunami eruption of Krakatoa based on data from core U-6 in the Ujungkulon area, Banten'. Marine microfossils in onland sediments may indicate paleo-tsunami deposits. Sand with coral debris at 90-120cm in core from Ujung Kulon recognized as tsunami deposit. With 55 species of benthic foraminifera, dominated by Streblus beccarii, Planulina wuellerstorfi, Hyalinea balthica, Bulimina marginata, Bolivina spathulata, Elphidium, Uvigerina peregrina Cushman. Origin of tsunami sediments is (outer) shelf-bathyal and inner shelf lagoon)

Frerichs, W.E. (1967)- Distribution and ecology of benthonic foraminifera in the sediments of the Andaman Sea. Ph.D. Thesis University Southern California, Los Angeles, p. 1-269.
(Recent foraminifera from seafloor samples across Andaman Sea, between 13-3778m depth. Number of forams increases with depth to 1800m; below this affected by dissolution of calcareous foraminifera. Planktonic number increases with depth and distance from shore. Planktonic assemblages from shelf sediments have globose chambers (Globigerina, Globigerinoides, Globigerinita); in bathyal deposits also common Globorotalia and Sphaeroidinella. Radiolarian number increases with depth; not significant above middle bathyal depths. Benthic foraminifera five faunal provinces. Etc.)

Fujita, K. (2006)- Identification of coral reef environments based on foraminiferal death assemblages from Ishigaki Island, Okinawa, Japan. In: Proc. 10th Int. Coral Reef Symposium, Okinawa 2004, p. 528-535.
(Reef-flat foraminiferal assemblages characterized by dominant Calcarinidae, whereas fore-reef foraminiferal assemblages are characterized by various dominant species)

Fujita, K., M. Otomaru, P. Lopati, T. Hosono & H. Kayanne (2016)- Shell productivity of the large benthic foraminifer *Baculogypsina sphaerulata*, based on the population dynamics in a tropical reef environment. Coral Reefs 35, p. 317ï 326

Fujita, K., H. Shimoji & K. Nagai (2006)- Paleoenvironmental interpretations of Quaternary reef deposits based on comparisons of 10 selected modern and fossil larger foraminifera from the Ryukyu Islands, Japan. Island Arc 15, p. 420-436.

Gorog, A.J., M.H. Sinaga & M.D. Engstrom (2004)- Vicariance or dispersal? Historical biogeography of three Sunda shelf murine rodents (*Maxomys surifer, Leopoldamys sabanus* and *Maxomys whiteheadi*). Biological J. Linnean Society 81, p. 91-109.
(online at: https://academic.oup.com/biolinnean/article/81/1/91/2639894)
(DNA tests of three rain-forest-restricted murine rodents of Borneo, Sumatra, Java, Malay Peninsula and Indochina do not support hypothesis of migrations enabled by Late Pleistocene land bridges/ rainforest corridors, but suggest older history of divergent evolution since Pliocene fragmentation of Sunda block)

Grand Pre, C.A. (2011)- The application of macro- and microfossils to identify paleoearthquakes in Sumatra, Indonesia and to characterize geomorphic and ecological succession on a marsh platform after Hurricane Isabel in North Carolina, USA. Ph.D. Thesis University of Pennsylvania, p. 1-179.
(Study of Early Holocene coseismic subsidence in Aceh. Buried mangrove soil horizons overlain with sharp contact by 5-20 cm thick sand that tapered landward, with intertidal and shallow marine foraminifera (Ammonia, Asterorotalia, Pararotalia, Quinqueloculina, etc.) and probably tsunami deposit. Sands overlain by 1-3 m of silty clay with at base common Cerithidea cingulata, an opportunistic intertidal gastropod)

Gremmen, W.H.E. (1987)- Palynological evidence from Quaternary sediments in Southeast Asia, a review. Palaeohistoria 29, p. 77-84
(online at: http://ugp.rug.nl/Palaeohistoria/article/view/24871/22319)

Guptha, M.V.S. (1981)- Nannoplankton from Recent sediments off the Andaman Islands. Indian J. Marine Sci. 10, p. 293-295.
(online at: http://nopr.niscair.res.in/bitstream/123456789/39098/1/IJMS%2010(3)%20293-295.pdf)
(16 deep marine seafloor samples around Little Andaman, with 14 modern and 24 reworked Eocene-Pliocene nannofossil species. Modern species dominated by Gephyrocapsa oceanica)

Gustiantini, L., K.T. Dewi & E. Usman (2005)- Foraminifera di perairan sekitar Bakauheni, Lampung (Selat Sunda bagian utara). J. Geologi Kelautan 3, 1, p. 10-18.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/120/110)
('Foraminifera in the waters around Bakauheni, Lampung (northern Sunda Strait)' Abundant foraminifera along Lampung coast in N Sunda Strait, dominated by Asterorotalia trispinosa, Operculina, Pseudorotalia and Elphidium)

Gustiantini, L. & D. Ilahude (2015)- Foraminifera bentik dalam sedimen sebagai indikator kondisi lingkunan terumbu karang di perairan Pulau Cemara Besar dan Cemara Kecil, Kepulauan Karimunjawa, Jawa Tengah. J. Geologi Kelautan 10, 1, p. 35-38
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/213/203)
('Benthic foraminifera in sediment as indicators of coral reef environments in the waters of Pulau Cemara Besar and Cemara Kecil, Karimunjawa Islands, Central Java'. Benthic forams dominated by Calcarina, Amphistegina, Streblus and Reusella)

Gustiantini, L., K.A. Maryunani, R. Zuraida, C. Kissel, F. Bassinot & Y. Zaim (2015)- Distribusi foraminifera di Laut Halmahera dari Glasial Akhir sampai Resen. J. Geologi Kelautan 13, 1, p. 25-36.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/259/249)
('The distribution of foraminifera in the Halmahera Sea from the last Glacial to Recent'. Deep marine Late Pleistocene- Holocene planktonic and benthic foraminifera from core MD10-3339, SE of Halmahera)

Gustiantini, L. & E. Usman (2008)- Distribusi foraminifera bentik sebagai indikator kondisi lingkungan di perairan sekitar Pulau Batam- Riau kepulauan. J. Geologi Kelautan 6, 1, p. 43-52.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/149/139)
('Distribution of benthic foraminifera as indicators of environmental conditions in the waters around Batam Island, Riau archipelago'. High abundance of benthic foraminifera in Batam- Bintan waters, dominated by dominated by Asterorotalia trispinosa, Pseudorotalia annectens, Amphistegina radiata, Quinqueloculina cf. philippinensis, and Operculina ammonoides)

Hayward, B.W., S. Kawagata, H.R. Grenfell, A.T. Sabaa & T. O'Neill (2007)- Last global extinction in the deep sea during the mid-Pleistocene climate transition. Paleoceanography 22, PA3103, p. 1-14.
(20% of cosmopolitan deep-sea benthic foraminifera extinct during late Pliocene-M Pleistocene, with peak of extinctions during M Pleistocene Climate Transition (1.2-0.55 Ma). Family Stilostomellidae (30 species) wiped out, Pleurostomellidae (9 species) decimated. Pulsed declines in abundance, earlier in deepst water sites. Tied to demise of microbial food source due to increased cold and oxygenation of S-sourced deep water masses during major late Pliocene and E Pleistocene glacials)

Hendrizan, M., R.A. Troa, R. Zuraida & E. Triarso (2016)- Calcareous nannoplankton (marine algae) analysis in subsurface sediments of Andaman Sea. Bull. Marine Geol. 31, 2, p. 91-98.
(online at: http://ejournal.mgi.esdm.go.id/index.php/bomg/article/view/313/277)
(4m thick Quaternary clay sediment core BS36 in S Andaman Sea (Mergui-N Sumatra Basin). With 11 genera of calcareous nannofossils, dominated by Gephyrocapsa, Emiliania, and Helicosphaera)

Hohenegger, J. (2000)- Coenoclines of larger foraminifera. Micropaleontology 46, Suppl. 1, Advances in the biology of foraminifera, p. 127-151.
(Good review of depth distribution of modern larger foraminifera, mainly in W Pacific)

Hussain, S.M. (2017)- An overview of ostracoda studies from the freshwater, marginal marine and marine ecosystems of Andaman and Nicobar Islands and the coasts of India. In: P K Kathal et al. (eds.) Micropaleontology and its applications, Scientific Publishers, India, p.

Hussain, S.M., P. Ganesan, G. Ravi, S.P. Mohan & S.G.D. Sridhar (2007)- Distribution of ostracoda in marine and marginal marine habitats off Tamil Nadu and adjoining areas, SE coast of India and Andaman Islands: environmental implications. Indian J. Marine Sciences 36, 4, p. 369-377.
(online at: http://nopr.niscair.res.in/bitstream/123456789/68/1/IJMS%2036(4)%20(2007)%20369-377.pdf)

Hussain, S.M., R. Krishnamurthy, M.S. Gandhi, K. Ilayaraja, P. Ganesan & S.P. Mohan (2006)- Micropaleontological investigations of tsunamigenic sediments of Andaman Islands. Current Science 91, p. 1655-1667.
(online at: www.iisc.ernet.in/currsci/dec252006/1655.pdf)
(Diverse marine foraminifera and ostracods from likely tsunami deposits on Andaman Islands. Common Amphistegina., Operculina ammonoides, Calcarina, Textularia, Ammonia, etc. Also deeper marine elements)

Hussain, S.M., S.P. Mohan & M.P. Jonathan (2010)- Ostracoda as an aid in identifying 2004 tsunami sediments: a report from SE coast of India. Natural Hazards 55, p. 513-522.
(Presence of marine ostracods in 2004 coastal tsunami deposits)

Isnaniawardhani, V. (2006)- Biostratigrafi dan paleoekologi berdasarkan nannoplankton dan foraminifera daerah Perairan Madura sejak Pliosen hingga Resen. Ph.D. Thesis Inst. Teknologi Bandung (ITB), p. 1- . *(Unpublished)*
('Biostratigraphy and palaeoecology based on nannoplankton and foraminifera in the Madura waters from Pliocene to Recent'. 10 biozones in waters S of Madura. Climate trends: warm conditions characterized by nannoplankton Discoaster quinqueramus and foram Globorotalia tumida)

Isnaniawardhani, V. (2012)- Karakteristik sedimen dan mikroorganisma permukaan dasar laut perairan Madura bagian utara. Bull. Scientific Contr. (UNPAD) 10, 1, p. 18-30.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8275/3822)
('Characteristics and microorganisms of seafloor sediments north of Madura'. Clay and silt seafloor samples in water depths 5-77m with 20 nannoplankton species (mainly Emiliania huxleyi, Gephyrocapsa oceanica), 30 planktonic forams species (mainly Globigerinoides ruber) and 16 benthic foraminifera species (common Ammonia, Quinqueloculina, Eponides, Triloculina, Asterorotalia, Cibicides, Cancris, Elphidium, Textularia). Pseudorotalia, Cibicides and Anomalinella more abundant in N, away from coast. Abundance and diversity increase with depth. Gephyrocapsa mainly in samples closest to shoreline)

Jumnongthai, J. (1983)- Recent smaller foraminifera from the Gulf of Thailand. J. Geol. Soc. Thailand 6, 1 p. 39-53.
(online at: http://library.dmr.go.th/Document/J-Index/1983/88.pdf)
(Foram distribution in 18 samples from water depth 29-74m in N Gulf of Thailand >99% benthics (83% calcareous). Common Asterorotalia pulchella, Cellanthus craticulatus, Elphidium, Pseudorotalia spp., Quinqueloculina, Textularia, etc.))

Jumnongthai, J. (2001)- Brackish foraminifera from southern provinces along the Gulf of Thailand. Dept. Mineral Resources, Bangkok, Techn. Report No. GSD 254/2001, p.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/2001/1746.pdf)
(Brackish water foraminifera from five provinces along Gulf of Thailand 53 benthic species. Low salinity facies with Ammobaculites, Ammotium cassis, Arenoparella, Miliammina fusca and Trochammina. Higher salinity assemblages with more calcareous forms Elphidium, Pararotalia nipponica))

Jumnongthai, J. (2002) Recent brackish foraminifera from southern peninsular Thailand. J. Geol. Soc. Thailand 1, p. 35-46.
(online at: http://library.dmr.go.th/Document/J-Index/2002/136.pdf)
(92 species of brackish foraminifera in estuaries and coastal zones along Andaman Sea. Arenacous taxa Arenoparella mexicana, Haplophragmoids, Miliammini fusca and Trochammina dominant in mangrove forests; calcareous taxa Ammonia beccarii, Elphidium and Pararotalia nipponica dominant in coastal areas)

Kawagata, S., B.W. Hayward & A.K. Gupta (2006)- Benthic foraminiferal extinctions linked to late Pliocene-Pleistocene deep-sea circulation changes in the northern Indian Ocean (ODP sites 722 and 758). Marine Micropaleontology 58, p. 219-242.
(Late Pliocene- M Pleistocene decline and extinction of 63 species of elongate, bathyal-upper abyssal benthic foraminifera (Stilostomellidae, Pleurostomellidae, some Nodosariidae. Two Indian Ocean ODP sites show pulsed declines in Extinction Group abundance and richness, especially in glacial periods, with partial recoveries in interglacials. Glacial declines result of increased production of colder, well-ventilated Antarctic Bottom Water and Glacial North Atlantic Intermediate Water)

Kob, M.R.C. (1993)- Late Quaternary nannofossils from offshore Sabah, northwest Borneo. In: T. Thanasuthipitak (ed.) Proc. Int. Symposium Biostratigraphy of mainland Southeast Asia: facies & paleontology (BIOSEA), Chiang Mai 1993, Chiang Mai University, 2, p. 261-281.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1993/2298_2 ...)
(late Pleistocene- Recent calcareous nannofossils from 13m thick core KL139 in ~2700m water depth of Sabah Trough. Emiliana huxleyi, Gephyrocapsa oceanica and 'small Gephyrocapsa' >50% of total assemblages. Four zones: deeper zone C (Late Pleistocene Last Glacial Maximum?) with peak 'small Gephyrocapsa' represents rel. cool period, youngest zone A with peak G. oceanica rel. warm)

Lei, Y. & T. Li (2016)- Atlas of benthic foraminifera from China Seas, the Bohai Sea and the Yellow Sea. IUP Science Press, Beijing, Springer, p. 1-399.
(Descriptions of 183 species of mainly shallow marine foraminifera from northeen South China Sea)

Lessard, R.H. (1964)- Intertidal and shallow water foraminifera of the tropical Pacific Ocean. M.Sc. Thesis, University of Southern California, p. 1-112.
(online at: http://digitallibrary.usc.edu/cdm/ref/collection/p15799coll30/id/107855)
(Mainly on distribution of Baculogypsina and Tinoporus in western tropical Pacific)

Li, Z., Y. Saito, L. Mao, T. Tamura, Z. Li, B. Song, Y. Zhang, A. Lu, S. Sieng & J. Li (2012)- Mid-Holocene mangrove succession and its response to sea-level change in the upper Mekong River delta, Cambodia. Quaternary Research 78, 2, p. 386-399.
(Cores from upper Mekong River delta in Cambodia record transgressive sequence from floodplain freshwater marsh to tidal flat (~9.4- 6.3 ka), overlain by mangrove. At decelerated sea-level rise at ~8.3 ka pioneer (high-salinity tolerant) mangrove species Sonneratia alba and Sonneratia caseolaris appeared, then was replaced by regressive mangrove succession of increasing Rhizophora apiculata and Bruguiera spp.)

Maloney, B.K. (1998)- That elm again! Ulmus at Pea Bullok, North Sumatra, and regional comparisons. Blumea 43, p. 121-127.
(online at: http://repository.naturalis.nl/document/565696)
(Quaternay Ulmus pollen present in Pua Bulok swamp in N Sumatra. Ulmus not necessarily ndicator for seasonal dryness)

Maloney, B.K. & F.G. McCormac (1996)- Thirty thousand years of radiocarbon dated vegetation and climatic change in highland Sumatra. Radiocarbon 37, p. 181-190.
(Pollen analysis and 14C sequences from two Sumatra highland sites, Pea Bullok (Toba Plateau) and Danau di-Atas, spanning last glacial period. Strong indications of extensive forest clearance after ~2 ka)

Mamo, B.L. (2016)- Benthic foraminifera from the Capricorn Group, Great Barrier Reef, Australia. Zootaxa 4215, 1, p. 1-123.
(Taxonomy of 133 benthic foram species from Heron Island, One Tree Island, Wistari and Sykes Reefs)

Marquez, E.J. (2000)- The 1991 Mount Pinatubo eruption and Eastern South China Sea foraminifera: occurrence, composition and recovery. Island Arc 9, 4, p. 527-541.
(Pyroclastic materials from 1991 eruption of Mt Pinatubo resulted in decimation of most benthic foraminifera in E South China Sea. Samples above eruption layers in deep water cores much lower abundances, lower diversity and relative common of Quinqueloculina spp., probably form part of recolonization fauna)

Martin, S.Q. (2016)- Distribution and taxonomy of modern benthic foraminifera of the western Sunda Shelf (South China Sea) off Peninsular Malaysia. Masters Thesis, East Carolina University, p. 1-
(Distribution and taxonomy of 125 modern benthic foraminifera species from 54 seafloor samples in southern S China Sea, between 8-60m. Main assemblages across Sunda Shelf : (1) nearshore areas (<40m) dominated by symbiont-bearing Amphistegina lessonii, A. radiata; (2) inner shelf (40-100m), sandy mud substrates and abundant Heterolepa. dutemplei; (3) outer shelf (100-200m), muddy substrates and Uvigerina schwageri)

Matsumaru, K. & Y. Matsuo (1976)- Short note on the Recent benthic foraminiferids from the beach sediments of the subtropical and tropical islands in the Western Pacific region. J. Saitama University, Faculty of Education (Math. Nat. Science), 25, p. 15-26.

Minhat, F.I., B. Satyanarayana, M.L. Husain & V.V.V. Rajan (2016)- Modern benthic foraminifera in subtidal waters of Johor: implications for Holocene sea-level change on the East coast of Peninsular Malaysia. J. Foraminiferal Research 46, 4, p. 347-357.
(Modern subtidal benthic foraminifera on E coast of Johor 279 species, dominated by Asterorotalia pulchella (= A. tripinosa), Discorbinella bertheloti, Pseudorotalia indopacifica, Ammonia and Cavarotalia annectens. Agglutinated species Textularia pseudosolita, T. agglutinans, Bigenerina nodosaria and T. foliacea in middle-shelf (>20m), calcareous genera Elphidium, Pararotalia and Ammonia in inner-shelf (<20m))

Mohan, P.M., P. Dhivya & K. Narayanamurthy (2013)- Distribution of live planktonic and benthic foraminifera in the shelf off Port Blair and Hut Bay, Andaman Group of Islands, India. In: K. Venkataraman et al. (eds.) Ecology and conservation of tropical marine faunal communities, Springer-Verlag, Berlin, p. 19-42.
(189 shelfal marine foram species off Andaman Islands (no water depths of sample locations given))

Murray, J.W. & C.W. Smart (1994)- Distribution of smaller benthic foraminifera in the Chagos Archipelago, Indian Ocean. J. Micropalaeontology 13, 1, p. 47-53.
(online at: https://www.j-micropalaeontol.net/13/47/1994/jm-13-47-1994.pdf)
(Chagos Archipelago in C Indian Ocean close to the equator. Relatively high energy conditions in shallow waters around reefs. On oceanic side of atoll reefs Amphistegina lessonii dominant, with minor miliolidsand up to 20% planktonics. Lagoon assemblages dominated by Calcarina calcar, with minor miliolids)

Muruganantham, M. & P.M. Mohan (2015)- The assemblages of benthic foraminifera In the muddy and sandy sediments of Andaman Islands. J. Andaman Science Association 20, 2, p. 199-208.
(online at: http://asapb.org/15%20-%20The%20Assemblages%20of%20Benthic.pdf)
(28 species of tropical marginal- shallow marine benthic foraminifera around South Andaman Island)

Muruganantham, M., P. Ragaven & P.M. Mohan (2017)- Diversity and distribution of living larger foraminifera from coral reef environments, South Andaman Islands, India. J. Foraminiferal Research 47, 3 p. 252-257.
(Larger foraminifera at six reef sites (4-30 m) around South Andaman Islands 16 species, incl. Amphistegina lessonii, A. radiata and Calcarina spengleri)

Ngisomuddin, Akmaluddin & H. Amijaya (2007)- Benthic foraminifera as indicator of Recent tsunami deposit sources at Pangandaran coast, Ciamis and Parangendog coast, Yogyakarta. Proc. Joint Conv. 36th IAGI, 32nd HAGI, and 29th IATMI, Bali 2007, p. 1110a-d.
(Recent tsunami deposit from Pangandaran with Ammonia, Elphidium, Amphistegina, Cibicide., Biginerina. Bolivina, Bathysiphon, Nodosaria and Quinqueloculina, suggesting source from shallow to deep marine environents. Recent tsunami sediments at Parangendog Beach with Ammonia beccarii and Elphidium advenum, suggesting sediments came from lagoonal to shallow marine environment)

Nugroho, S.H. (2018)- State of knowledge on marine palynology in Indonesia. Proc. Global Colloquium on GeoSciences and Engineering, Bandung 2017, IOP Conf. Series, Earth Environm. Science 118, 012012, p. 1-7.
(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012012/pdf)
(Brief review of Quaternary (displaced) spores-pollen studies in marine environments in Indonesia)

Nurani, N., L. Jurnaliah & Winantris (2014)- Penentuan spesies foraminifera bentonik kecil dominan pada perairan Semarang, Provinsi Jawa Tengah. Bull. Scientific Contr. (UNPAD) 12, 1, p. 1-7.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8364/3885)
('Determination of small benthic foraminifera species dominant in the waters of Semarang, C Java Province'. Foraminifera in 20 samples from 38-54m in Java Sea N of Semarang dominated by Heterolepa (36%), Anomalina, Ammonia spp. (12%), Pseudorotalia, Quinqueloculina spp. (9%) and Asterorotalia trispinosa(6%))

Nurdin, N. & I.R. Silalahi (2014)- Distribusi foraminifera bentik di perairan Aceh. J. Geologi Kelautan 12, 1, p. 25-31.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/243/233)
('Distribution of benthic foraminifera in Acaeh waters'. Shallow marine foraminifera distribution off NW tip of Sumatra, in water depths of 7-170m. 45 species of benthic foraminifera, dominated by Amphistegina papillosa. Ammonia tepida dominant in N part of Weh island)

Ongkosongo, O.S.R., S. Soeka & Susmiati (1979)- Foraminifera Resen dari daerah kehidupan hutan bakau di Teluk Ambon. Proc. Seminar Ekosistem Hutan Mangrove, Jakarta 1978, p. 129-138.
('Recent foraminifera from mangrove forests in Ambon Bay' (see also Suhartati Natsir 2010))

Poliakova, A. (2015)- The Late Holocene history of vegetation, climate, fire dynamics and human impacts in Java and Southern Kalimantan. Doct. Thesis Georg-August Universitat, Gottingen, p. 1-186.
(online at: https://d-nb.info/1113875569/34)
(Collection ofpapers/ manuscripts of palynological studies in four shallow cores in Holocene deposits in Java Sea off NE Java (Solo River) and S Kalimantan (off Jelai and Pembuang rivers))

Poliakova, A., K.A.F. Zonneveld, L.S. Herbeck, T.C. Jennerjahn, H. Permana, C. Kwiatkowski & H. Behling (2017)- High resolution multi-proxy reconstruction of environmental changes in coastal waters of the Java Sea, Indonesia, during the late Holocene. Palynology 41, 3, p. 297-310.
(A 134-cm-long sediment core from ~50 km off Pembuang River mouth, S Kalimantan. Mixed terrestrial and marine organic matter, with low pollen-spore concentrations. Dinoflagellate cysts mainly Operculodinium and Spiniferites with minor Impagidinium (mainly I. strialatum). After ca. 2480 cal yr BP, bottom waters became increasingly ventilated. After 1530 cal yr BP, more pronounced influence of Pembuang River indicated by nutrient-sensitive Lingulodinium machaerophorum and Nematosphaeropsis labyrinthus)

Rajshekhar, C. (2013)- The Late Holocene foraminifera from Andaman Islands, Andaman Sea, Bay of Bengal. In: K. Venkataraman et al. (eds.) Ecology and conservation of tropical marine faunal communities, Springer Verlag, p. 3-18.
(S Andaman Island three distinct environments: rocky shore with Elpidium, Amphistegina; (2) sandy shore with common Calcarina and (3) intertidal muddy region with Trochammina inflata is common in intertidal clays)

Reeves, J.M., A.R. Chivas, A. Garcia & P. De Deckker (2007)- Palaeoenvironmental change in the Gulf of Carpentaria (Australia) since the last interglacial based on Ostracoda. Palaeogeogr. Palaeoclim. Palaeoecology 246, p. 163-187.
(Throughout last glacial cycle, region between Australia and New Guinea (now Gulf of Carpentaria) oscillated from open shallow marine conditions to freshwater lake behind Arafura sill. Six ostracod biofacies in last 130 ka: (1) open shallow marine with bairdiids, pectocytherinids, cytherettids; (2) shallow marine dominated by Cytherella and Hemikrithe; (3) marginal marine with Xestoleberis and Praemunita; (4) tidal channel dominated by Loxoconcha; (5) estuarine with Venericythere and Leptocythere; (6) non-marine facies: brackish lagoon/lake dominated by Cyprideis and Leptocythere and freshwater with Ilyocypris, Cyprinotus and Cypretta. Also morphological variations within species tied to paleoenvironments)

Renema, W. (2018)- Terrestrial influence as a key driver of spatial variability in large benthic foraminiferal assemblage composition in the Central Indo-Pacific. Earth-Science Reviews, p. *(in press)*

Romero, O.E., M. Mohtadi, P. Helmke & D. Hebbeln (2012)- High interglacial diatom paleoproductivity in the westernmost Indo-Pacific Warm Pool during the past 130,000 years. Paleoceanography 27, PA3209, p. 1-14.
(online at: http://onlinelibrary.wiley.com/doi/10.1029/2012PA002299/epdf)
(Late Pleistocene diatoms in core GeoB10038-4 off S Sumatra show highest paleoproductivity during interglacials, due to nutrient input after rise in sea level. In Marine Isotope Stage 5 response of diatom productivity and upwelling intensity to boreal summer insolation. Resting spores of Chaetoceros, typical of nutrient-rich waters, dominant during periods of highest diatom paleoproductivity)

Rugmai, W., P.J. Grote, C. Chonglakmani, R. Zetter & D.K. Ferguson (2008)- A Late Pleistocene palynoflora from the coastal area of Songkhla Lake, southern Thailand. Science Asia 34, p. 137-145.
(online at: http://scienceasia.org/2008.34.n2/scias34_137.pdf)

Rymer-Jones, F.W.O. (1874)- On some Recent forms of Lagenae from deep-sea soundings in the Java Seas. Trans. Linnean Soc. London, 30, 1, p. 45-69.
(On many 'varieties' of Lagena vulgaris (incl. Oolina) from seafloor samples at 1080 fathoms, 10 miles S of 'Sandalwood Island' (= probably Sumba, but lat-longs closer to South Bali; unlikely from Java Sea). Many now viewed as species. Associated with common Rotalia, Uvigerina, Bulimina, Globigerina, diatoms, ostracods, sponge needles, etc.)

Saraswat, R., M. Manasa, T. Suokhrie, M.S. Saalim & R. Nigam (2017)- Abundance and ecology of endemic *Asterorotalia trispinosa* from the western Bay of Bengal: implications for its application as a paleomonsoon proxy. Acta Geologica Sinica (English Ed.) 91, 6, p. 2268-2282.
(In samples from continental shelf and slope of W Bay of Bengal Asterorotalia trispinosa abundance ranges from 0-31%, with highest abundance near outfall region of Ganges-Brahmaputra Rivers and decreases away from river mouths. Abundance of A. trispinosa indicates warmer and marginally hyposaline environment)

Sathyanarayana, B., M.L. Husain, R. Ibrahim, S. Ibrahim & F.D. Guebas (2014)- Foraminiferal distribution and association patterns in the mangrove sediments of Kapar and Matang, West Peninsular Malaysia. J. Sustainability Science Management 9, p. 32-48.
(online at: www.ulb.ac.be/sciences/biocomplexity/pub/Satyanarayanaetal_2014_JSustainSciManage.pdf)
(28 foram species in mangrove surface sediment on W coast of Malay Peninsula. Calcareous forms mainly Ammonia beccarii and Buccella frigida. Agglutinated species mainly Arenoparrella and Haplophragmoides)

Sawai, Y., K. Jankaew,M.E. Martin, A. Prendergast, M. Choowong &, T. Charoentitirat (2009)- Diatom assemblages in tsunami deposits associated with the 2004 Indian Ocean tsunami at Phra Thong Island, Thailand. Marine Micropaleontology 73, 1, p. 70-79.
(Diatom assemblages in fining-upward m-f sandy deposits of 2004 tsunami at Phra Thong Island, Thailand: (1) lowermost sand mainly unbroken beach and subtidal species that live attached to sand grains; (2) shift to marine planktonic species in middle of the bed and (3) mix of freshwater, brackish, and marine species near top. Trends are consistent with expected changes in current velocities of tsunami through time)

Schonfield, J. (1994)- Biostratigraphy and assemblage composition of benthic foraminifera from the Manihiki Plateau, southwestern tropical Pacific. J. Micropalaentology 14, 1, p. 165-175.
(online at: https://www.j-micropalaeontol.net/14/165/1995/jm-14-165-1995.pdf)
(Deep water Late Pliocene- Pleistocene benthic foraminifera from Sonne cruise SO67 core on Manihiki Plateau in SW Tropical Pacific (2612m water depth). Dominated by Nodogenerina, Cibicidoides wuellerstorfi, Oridorsalis umbonatus, Pleurostomella, Dentalina, etc. Remarkable absence of 'high-productivity taxa' Bolivina, Bulimina, Chilostomella and Uvigerina, suggesting low flux of organic matter to sea floor)

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(Distribution of oceanic diatoms in W Philippine Basin. Ethmodiscus rex dominant species. 68 species in 4 assemblages, related with North Equatorial Current and Kuroshio Current patterns)

Sidiq, A., S. Hadisusanto & K.T. Dewi (2016)- Foraminifera bentonik kaitannya dengan kualitas perairan de wilayah barat daya Pulau Morotai, Maluku Utara. J. Geologi Kelautan 14, 1, p. 13-22.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/336/264)
('Benthic foraminifera and relation to water quality off southwest part of Morotai Island, North Moluccas'. Seafloor samples from 16-36m off Morotai, N Moluccas, with 28 species of benthic foraminifera, dominated by abundant Amphistegina spp. and Operculina spp. Also Alveolinella, Calcarina, Heterolepa, Baculogypsinoides, Elphidium, Peneroplis, Schlumbergerella and Sorites)

Somboon, J.R.P. (1990)- Palynological study of mangrove and marine sediments of the Gulf of Thailand. J. Southeast Asian Earth Sci. 4, 2, p. 85-97.

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(Example of occurrences of tube worms at cold gas seeps and hot hydrothermal vent sites in SW Pacific and S Java deepwater seafloor settings (also known from Sumatra forearc, etc.))

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(online at: http://pubs.usgs.gov/of/2012/1163/)
(Spectacular photographs of modern coastal marine diatoms, including Indonesian material on Plates 30-33 (Semarang, Sumatra))

Sugawara, D., K. Minoura, N. Nemoto, S. Tsukawaki, K. Goto & F. Imamur (2009)- Foraminiferal evidence of submarine sediment transport and deposition by backwash during the 2004 Indian Ocean tsunami. Island Arc 18, 3, p. 513-525.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1440-1738.2009.00677.x/epdf)
(Nearshore to offshore sediments from SW coast of Thailand clarify submarine sediment transport during 2004 Indian Ocean tsunami. Benthic foraminifera showed seaward migration after tsunami event (brackish agglutinated foraminifera in post-tsunami foreshore to offshore, transported offshore with tsunami backwash). Offshore planktonic and benthic species slight evidence of landward migration by tsunami)

Suhartati M. Natsir & K.T. Dewi (2015)- Foraminifera bentik terkait dengan kondisi lingkungan perairan sekitar Pulau Damar, Kepulauan Seribu. J. Geologi Kelautan 13, 3, p. 165-171.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/271/261)
('Benthic foraminifera related to marine environments around Damar Island, Pulau Seribu'. 64 species of benthic foraminifera from 11-37m depth around Damar Island reef, S part of Thousand Islands. Common forms associated with coral reef incl. Amphistegina lessonii, A. radiata, Sorites marginalis, Heterostegina and Calcarina calcar)

Suhartati M. Natsir, K.T. Dewi & S. Ardhyastuti (2017)- Keterkaitan foraminifera dan kedalaman perairan sebelah tenggara Pulau Seram, Maluku. J. Geologi Kelautan 15, 2, p. 73-80.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/389/424)
('The relation between foraminifera and water depth of waters SE of Seram Island, Moluccas'. Nine samples between 512-1177m water depth, with 95-100% planktonic foraminifera. Rare benthic foraminifera incl. Bulimina, Buliminella, Bolivinella)

Suhartati M. Natsir, A. Firman, I. Riyantini & I. Nurruhwati (2015)- Struktur komunitas foraminifera pada sedimen permukaan dan korelasinya terhadap kondisi lingkungan lepas pantai Balikpapan, Selat Makassar. J. Ilmu dan Teknologi Kelautan Tropis 7, 2, p. 671-680.
(online at: http://journal.ipb.ac.id/index.php/jurnalikt/article/view/11059/8774)
('Community structure of foraminifera in surface sediments and correlation with environmental conditions in offshore waters of Balikpapan, Makassar Strait'. Foraminifera from 6 seafloor samples off Balikpapan. (no water depths for samples (54-73m?), no species identifications))

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(online at: www.persee.fr/docAsPDF/befeo_0336-1519_1983_num_72_1_1458.pdf)
(Palynomorphs from soil material used for construction of base of Borobudur monument. Collected from alluvial deposits in open area, not covered by dense vegetation. Absence of marsh and aquatic elements like Typha and Nymphaea in samples suggests not derived from lake or marsh)

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(online at: http://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=1786&context=gradschool_dissertations)

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(online at: https://sites01.lsu.edu/faculty/swarny/wp-content/uploads/sites/30/2018/02/Thomas-et-al.-2018-QI.pdf)
(Palynological data indicate climatic conditions at sea level around Gulf of Papua remained warm, wet and stable for past 14.5 kyr, with sea surface T >14 °C)

Van Benthem Jutting, W.S.S. (1959)- Catalogue of the non-marine mollusca of Sumatra and of its satellite islands. Beaufortia, Zoological Museum Amsterdam, 7, 83, p. 41-191.
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(Malesian (= Indonesian) mountain flora reached Indnesian archipelago along three migration routes, called Sumatra, Luzon and Papuan tracks)

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(Re-description of some modern freshwater ostracod species from Sulawesi and Sumatra, originally described by Moniez (1892) (Strandesia, Hemicyprus, Cypretta))

Victor, R. & C.H. Fernando (1981)- Freshwater ostracods (Crustacea: Ostracoda) of the subfamily Cyprinotinae Bronstein, 1947 from Malaysia, Indonesia and the Philippines. Hydrobiologia 83, 1, p. 11-27.
(Recent Cyprinotus, Hemicypris and Heterocypris from ponds in W Indonesia, etc.)

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('The Pleistocene alluvial terraces of the Mekong (Cambodia), I. Homoxyxl silified woods collected between Stung-Treng et Snoul')

Vozenin-Serra, C. & C. Prive-Gill (1991)- Les terrasses alluviales pleistocenes du Mekong (Cambodge). II. Bois silicifies heteroxyles recoltes entre Stung-Treng et Snoul. Review Palaeobotany Palynology 68, 1/2, p.
('The Pleistocene alluvial terraces of the Mekong (Cambodia), II. Heteroxyxl silified woods collected between Stung-Treng et Snoul')

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(Trends in foraminifera assemblages along 80 km length of macrotidal river E of Darwin, N coast of Australia. Due to tidal transport and resuspension, most foraminiferal thanatocoenoses in river contain many small marine forms, while % of large and heavy marine forams, like Quinqueloculina, decreases upstream)

Wang, X., S. van der Kaars, P.P. Kershaw, M.I. Bird & F.A. Jansen (1999)- A record of fire, vegetation and climate through the last three glacial cycles from Lombok Ridge Core G6-4, Eastern Indian Ocean, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 147, 3-4, p. 241-256.
(Deepsea core SW of Sumba with ~300,000 yr sediment record)

Wicaksono, S.A., J.M. Russell & S. Bijaksana (2015)- Compound-specific carbon isotope records of vegetation and hydrologic change in central Sulawesi, Indonesia, since 53,000 yr BP. Palaeogeogr. Palaeoclim. Palaeoecology 430, p. 47-56.
(Carbon isotopic composition (δ13C) of terrestrial leaf waxes in sediment cores from LakeMatano spanning 53 kyr. During Marine Isotope Stages 1 and 3, more negative δ13Cwax values indicate closed-canopy rainforests dominated in Sulawesi, in wetter, less seasonal climate. More abundant open canopy vegetation and possible expansion of C4 grasses between 29-14 ka BP, indicating more arid climate in Marine Isotope Stage 2 (incl. Last Glacial Maximum). Higher elevations maintain rainforest refugia during regionally arid time intervals when C4 savannas and grasslands expanded at lower elevations)

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('Fungal spores in Recent sediments of the Mahakam delta from, East Kalimantan'. Terrestrial and marine fungal spores present in delta front sediments, incl. Monoporisporites, Inapertisporites, Biporipsilonites)

Winantris (2012)- Kelimpahan polen dan spora endapan channel Delta Mahakam. Bull. Scientific Contr. (UNPAD) 10, 2, p. 89-95.
(online at: http://jurnal.unpad.ac.id/bsc/article/view/8280/3827)
('Abundance of pollen and spores in channels deposits of the Mahakam Delta'. Abundance of pollen higher in tidal channel deposits than in distributary channels. Oncosperma tigillarium and Nypa fruticans palmae pollen dominate in distributary channels, Rhizophora and Avicennia mangrove pollen dominant in tidal channels)

Winantris & L. Jurnaliah (2018)- Pollen and foraminifera approaches to identify sediment sources in the river mouth Mahakam, East Kalimantan. J. Geoscience Engineering Environm. Technol. (JGEET) 2, 4, p. 242-248.
(online at: http://journal.uir.ac.id/index.php/JGEET/article/view/689/627)
(Shallow core from Mahakam River before delta plain. Common pollen, rel. rare, simple foraminifera (Oolina, Ramulina, Stictogongylus vandiemenensis, etc.))

Winantris, I. Syafri & A.T. Rahardjo (2012)- *Oncosperma tigillarium* merupakan bagian palino karakter delta plain di Delta Mahakam, Kalimantan. Bionatura-Jurnal Ilmu-ilmu Hayati dan Fisik 14, 3, p. 228-236.
(online at: http://jurnal.unpad.ac.id/bionatura/article/viewFile/7465/3426)
('Oncosperma tigillarium is part of the palino character of delta plain in Mahakam Delta, Kalimantan'. O. tigillarium pollen of coastal palm tree widespread in Recent delta plain samples, but absent in delta front, therefore good indicator of (upper) delta plain environment)

Yahya, K., S. Shuib, F.I. Minhat, O. Ahmad & A. Talib (2014)- The distribution of benthic foraminiferal assemblages in the north-west coastal region of Malacca Straits, Malaysia. J. Coastal Life Medicine 2, 10, p. 784-790.
(online at: www.jclmm.com/qk/201410/5.pdf)
(Benthic foram assemblages from shallow marine environments around NW Penang Island dominated by Ammonia (~80% of fauna), followed by Elphidium (~3%). Rare agglutinated taxa and Bolivina)

Yassini, I., B.G. Jones & M.R. Jones (1993)- Ostracods from the Gulf of Carpentaria, northeastern Australia. Senckenbergiana Lethaea 73, p. 375-406.

Yin, J., C. Liu, J. Zhang, X. Yang, J. Wu, W. Oschmann, F.T. Fursich, B. Zhu & H. Zhang (2018)- Distribution and constraining factors of planktonic and benthic foraminifers in bottom sediments of the southern South China Sea. Palaeogeogr. Palaeoclim. Palaeoecology, p. *(in press)*
(Water depth dominant factor controling foram assemblage composition and δ18O. Differences in proportion of agglutinated and porcelaneous tests in shallow-water zone controlled by terrestrial runoff from nearby river systems (Mekong and N Borneo rivers) and seasonal currents. Dominance of Melonis barleeanus at sites of active cold methane seepage in southern SCS)

Zhang, P., R. Zuraida, Y. Rosenthal, A. Holbourn, W. Kuhnt & J. Xu (2018)- Geochemical characteristics from tests of four modern planktonic foraminiferal species in the Indonesian Throughflow region and their implications. Geoscience Frontiers, 12p. *(in press)*
(online at: https://www.sciencedirect.com/science/article/pii/S1674987118300471?via%3Dihub)
(d18O and Mg/Ca of Globigerinoides ruber, Gs sacculifer, Pulleniatina obliquiloculata and Neogloboquadrina dutertrei from 60 coretop sediment samples from Indonesian Throughflow region suggest calcification within mixed layer for G. ruber (0-50m) and G. sacculifer (20-75 m), and within thermocline (~75-125m) for P. obliquiloculata and N. dutertrei)

Zhao, Q. & R.C. Whatley (1997)- Distribution of the ostracod genera *Krithe* and *Parakrithe* in bottom sediments of the East China and Yellow Seas. Marine Micropaleontology 32, 1, p. 195-207.
(Distribution closely linked to water masses)

Zhou, B. (1995)- Recent ostracode fauna in the Pacific off Southwest Japan. Mem. Faculty Science, Kyoto University, Ser. Geology Mineralogy, 57, 2, p. 21-98.
(online at: http://repository.kulib.kyoto-u.ac.jp/dspace/bitstream/2433/186675/1/mfskugm%20057002_021.pdf)

Zhou, B. & Q. Zhao (1999)- Allochthonous ostracods in the South China Sea and their significance in indicating downslope sediment contamination. Marine Geol. 156, p. 187-195.
(Modern distribution pattern of allochthonous ostracods in South China Sea: limited to continental shelf and slope, and around reef islands, suggesting ostracods have not travelled far from source areas. Turbidites probably principal agent responsible for downslope transport of ostracods)

X.2. Tertiary (30)

Adams, C.G. (1989)- Foraminifera as indicators of geological events. Proc. Geologists Assoc. 100, 3, p. 297-311.

Adisaputra, Mimin K. & M. Hendrizan (2008)- Hiatus pada kala Eosen-Miosen Tengah di Tinggian Roo, Samudra Hindia, berdasarkan biostratigrafi nannoplankton. J. Geologi Kelautan 6, 3, p. 154-166.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/159/149)
('Eocene- Middle Miocene hiatus at the Roo Rise, Indian Ocean S of East Java, based on nannoplankton biostratigraphy'. Late Miocene and Paleocene calcareous nannoplankton from Roo Rise piston core MD982156 from MD III-IMAGES IV Expedition)

Beets, C. (1986)- Notes on *Buccinulum* (Gastropoda, Buccinidae), a reappraisal. Scripta Geol. 82, p. 83-100.
(online at: http://repository.naturalis.nl/document/148781)
(Review of Eocene- Recent gastropod genus Buccinulum in Indo- West Pacific region, mainly from W Indonesia. New subgenus Samudra proposed, with type species B. djocdjocartae)

Bhaumik, A.K., A.K. Gupta, M.S. Raj, K. Mohan, S. De & S. Sarkar (2007)- Paleoceanographic evolution of the northeastern Indian Ocean during the Miocene: evidence from deep-sea foraminifera (DSDP Hole 216A). Indian J. Marine Science 36, 4, p. 332-341.
(online at: http://nopr.niscair.res.in/bitstream/123456789/57/1/IJMS%2036(4)%20(2007)%20332-341.pdf)
(Deepwater benthic forams at ODP Site 216A suggest shift in deep-sea ventilation at 15-14 Ma, coinciding with M Miocene cooling)

Evans, D., W. Muller, S. Oron & W. Renema (2013)- Eocene seasonality and seawater alkaline earth reconstruction using shallow-dwelling large benthic foraminifera. Earth Planetary Sci. Letters 381, p. 104-115.
(Reconstruction of M Eocene tropical sea surface T seasonality using Nummulites djokdjokartae from Nanggulan, C Java (~39-37 Ma). Results indicate 5-6 °C annual T range, implying greater seasonality in M-Eocene (Bartonian) than in modern time. Seasonal surface ocean cooling facilitated by enhanced Eocene tropical cyclone-induced upper ocean mixing, as suggested by recent modelling results)

Hanagata, S. & T. Nobuhara (2015)- Illustrated guide to Pliocene foraminifera from Miyakojima, Ryukyu island arc, with comments on biostratigraphy. Palaeontologia Electronica 18.1.3A, p. 1-140.
(online at: http://palaeo-electronica.org/content/pdfs/444.pdf)
(Extensive descriptions and illustrations of Pliocene open marine benthic and planktonic foraminifera from outcrop samples of SW Pacific island E of Taiwan)

Jacques, F.M.B., G. Shi, T. Su & Z. Zhou (2015)-A tropical forest of the middle Miocene of Fujian (SE China) reveals Sino-Indian biogeographic affinities. Review Palaeobotany Palynology 216, p. 76-91.
(M Miocene Fotan flora of S Fujian, just above basalt with 14.8 ± 0.6 Ma radiometric age, considered to represent tropical rainforest based on occurrence of Dipterocarpaceae and other tropical-subtropical elements, Closer affinities to Indian Neogene than other Chinese paleofloras. During M Miocene Climatic Optimum tropical and subtropical vegetation moved N to S Fujian)

Kase, T., Y. Kurihara, Y.M. Aguilar, H. Pandita, A.G.S. Fernando & H. Hayashi (2015)- A new cerithioidean genus *Megistocerithium* (Gastropoda; Mollusca) from the Miocene of Southeast Asia: a possible relict of Mesozoic ñEustomatidaeò. Paleontological Research 19, 4, p. 299-311.
(New, large cerithiform gastropod genus/ species Megistocerithium magoi described, based on specimens from M Miocene Nyalindung Fm of W Java and Philippines. Intertidal sandy mudflat dweller (mangove grazer?). M. magoi possibly relict of Mesozoic Eustomatidae)

Kiel, S. (2013)- Lucinid bivalves from ancient methane seeps. J. Molluscan Studies 79, 4, p. 346-363.
(online at: https://academic.oup.com/mollus/article/79/4/346/1014058/Lucinid-bivalves-from-ancient-methane-seeps)

(Lucina-type bivalves reported from late Jurassic- late Miocene methane-seep deposits worldwide. Elliptiolucina hetzeli associated with asphalt seeps in Late Miocene sediments of Buton, Indonesia (Martin, 1933, Beets 1942) and E Pliocene seep deposits of Leyte, Philippines (Kase et al. 2007, Majima et al. 2007))

Lei, Z.Q. (1997)-Tertiary palynological sequence and the related problems in Pearl River mouth basin. In: P. Dheeradilok et al. (eds.) Proc. Int. Conf. Stratigraphy and tectonic evolution of Southeast Asia and the South Pacific (GEOTHAI'97), Dept. Mineral Resources, Bangkok, 1, p. 218-222.
(online at: http://library.dmr.go.th/library/Proceedings-Yearbooks/M_1/1997/7641.pdf)
(Tertiary palynology zonation of Pearl River Mouth basin, northern South China Sea. Warmest paleoclimate in M Miocene (common tropical mangroves of Florschuetzia cf. levipoli- Dacrydiumites florinii assemblage), coldest in Late Oligocene (Alnipollenites- Pinuspoleenites assemblage). Tertiary biozonation similarities with SE Asia, but calibration of Oligo-Miocene Florschuetzia zones younger than Morley 1977)

Lelono, E.B. (2001)- Climatic effect to the distribution of the Late Paleogene indicator of pollen *Meyeripollis naharkotensis* in Western Indonesia. Lemigas Scientific Contr. 24, 2, p. 12-16.

Lelono, E.B. (2007)- Zonasi polen Tersier Indonesia Timur. Lembaran Publikasi Lemigas 41, 1, p. 1-8.
('Tertiary pollen zonation of East Indonesia'. Differences of pollen assemblages between Papua (Australian plate) and Sulawesi- Java (Sundaland/Asian plate) necessitate separate palynozonation for E Indonesia: (1) 1. Spinizonocolpites baculatus (Paleo-Eocene). (2) Metroxyllon salamonense (M Miocene), (3) Foveosporites spp; (4) Nothofagidites emarcida (Late Miocene; 3 sub-zones), (5) (6) Malvacipollis diversus (Pliocene), (7) 'Garcinia cuspidata type' (Late Pliocene) (8) Proteacidites spp. (Pleistocene))

Lelono, E.B. (2009)- The dispersal route of the Australian elements of *Dacrydium* and *Casuarina* from its origin to SE Asia. Lemigas Scientific Contr. 32, 3, p. 157-161.
(Australian pollen Dacrydium may have dispersed into SE Asia prior to E Oligocene via Ninety East Ridge and Indian plate, and subsequent distribution across Sunda region and Indochina was limited by paleoclimate, explaining why it is present in some areas of Sunda region, but not others. Dispersal of Casuarina remains unresolved; migration via India unlikely as it is not known from Indian subcontinent)

Lindley, I.D. (2004)- Some living and fossil echinoderms from the Bismarck Archipelago, Papua New Guinea, and two new echinoid species. Proc. Linnean Soc. New South Wales 125, p. 115-139.

Malz, H. (1981)- *Atjehella jacobi* n.sp., eine pliozane Ostracoden-Art von Java. Senckenbergiana Lethaea 62, p. 167-171.
(Atjehella jacobi n.sp., a Pliocene ostracod species from Java')

Novak, V. & W. Renema (2018)- Ecological tolerances of Miocene larger benthic foraminifera from Indonesia. J. Asian Earth Sci. 151, p. 301-323.
(online at: https://www.sciencedirect.com/science/article/pii/S1367912017306235)
(Paleoenvironmental models for distribution of Miocene larger foraminifera, based on cluster analysis of assemblages from E-M Miocene mixed carbonate-clastic series in Kutai Basin, E Kalimantan, and Serravallian Bulu Fm of C Java)

Poumot, C. (1989)- Palynological evidence for eustatic events in the Tropical Neogene. Bull. Centre Rech. Exploration Production Elf Aquitaine 13, 2, p. 437-453.

Prakash, U. (1971)- Fossil woods from the Tertiary of Burma. Palaeobotany 20, 1, p. 48-70.

Prakash, U. & M.B. Bande (1980)- Some more fossil woods from the Tertiary of Burma. Palaeobotany 26, 3, p. 261-78.

Reich, S., V. Warter, F.P. Wesselingh, H. Zwaan, L. Lourens & W. Renema (2015)- Paleoecological significance of stable isotope ratios in Miocene tropical shallow marine habitats (Indonesia). Palaios 30, 1, p. 53-65.
(Aragonitic shells of Burdigalian and Tortonian molluscs from C Java and E Kalimantan analyzed for δ18O and δ13C ratios. Depleted δ18O and δ13C ratios in brackish water samples. Also chemosymbiotic species show depleted δ13C ratios. Seagrass communities yield comparatively enriched δ13C ratios. Stable isotope ratios may provide additional evidence for distinguishing paleoenvironments)

Renema, W. (2015)- Spatiotemporal variation in morphological evolution in the Oligocene-Recent larger benthic foraminifera genus *Cycloclypeus* reveals geographically undersampled speciation. GeoResJ 5, p. 12-22.
(online at: www.sciencedirect.com/science/article/pii/S2214242814000217)
(Genus Cycloclypeus ranges from Oligocene- Recent, first appearing in E Rupelian of Java and Kalimantan (C. koolhoveni). Late Oligocene- Recent C. eidae to C. carpenteri lineage in Mediterranean and Indo- West Pacific provinces. C. annulatus derived from C. eidae as separate lineage in late Early-M Miocene)

Sharma, V. & L.B. Devi (2007)- Neogene oceanographic and climatic changes in the northern Indian Ocean: evidence from radiolaria. Indian J. Marine Science 36, 4, p. 361-368.
(online at: nopr.niscair.res.in/bitstream/123456789/...)
(E Neogene radiolaria from N Indian Ocean and Andaman-Nicobar islands show influx of colder water immigrant species in early Middle Miocene (~12.5- 16 Ma))

Sharma, V. & M.P. Ram (2003)- Early to Middle Miocene radiolarian assemblages and biostratigraphy, Andaman Islands, Northeast Indian Ocean. J. Palaeontological Soc. India 48, p. 1-39.
(online at: http://palaeontologicalsociety.in/vol48/v1.pdf)
(Ten low-latitude radiolarian events identified in E-M Miocene sections of Andaman- Nicobar islands)

Singh, R.K. & A.K. Gupta (2010)- Deep-sea benthic foraminiferal changes in the eastern Indian Ocean (ODP Hole 757B): their links to deep Indonesian (Pacific) flow and high latitude glaciation during the Neogene. Episodes 33, 2, p. 74-81.
(online at: www.episodes.org/index.php/epi/article/download/62122/48423)
(ODP Hole 757B, Ninetyeast Ridge, SE Indian Ocean, with well-oxygenated deep-sea benthic foraminifera (Cibicides cicatricosus, C. pseudoungerianus, Oridorsalis umbonatus) dominant in late Oligocene- E Miocene, but declining through M Miocene as Site 757 became under influence of Indonesian Throughflow with water masses from Pacific Ocean. Nuttallides umbonifera major increase at ~11 Ma, coinciding with increase in Nd isotope values, indicating substantial transport of deep Pacific water to Indian Ocean through Indonesian seaway. N. umbonifera decreases drastically during 3-2.8 Ma, coinciding with closure of Indonesian seaway and switch in shallow ITF source from warm, saline S Pacific to cool, fresh N Pacific thermocline water)

Tan Sin Hok (1930)- On *Cycloclypeus* its phylogeny and signification for the biostratigraphy in general and for the stratigraphy of the Tertiary of the Indo-Pacific region. Handelingen Nederlandsch-Indisch Natuurwetenschappelijk Congres 1930, p. 641ï 644.

Tobler, A. (1925)- Uber eine ostindische *Lepidocyclina* mit mehrkammeriger Nucleoconch. Eclogae Geol. Helvetiae 19, p. 269-274.
(online at: https://www.e-periodica.ch/digbib/view?pid=egh-001:1925-1926:19#284)
('On an East Indies Lepidocyclina with multi-chambered embryon'. Lepidocyclina (probably Eulepidina) from E Miocene at Sungi Tjengal, N margin of Gumai Mts, S Sumatra, with multi-chambered embryon (not unusual aberrant growth in orbitoidal foraminifera, with no apparent ecological or biostratigraphic significance; JTvG))

Van Cappelle, H. (1885)- Het karakter van de Ned.-Indische Tertiaire fauna. Doct. Thesis University of Leiden, p. 1-198.
('The nature of the Tertiary fauna of the Netherlands Indies'. Early attempt of interpretation of the nature of Indonesian Tertiary faunas by student of K. Martin)

Van der Vlerk, I.M. (1968)- Evolutie van een embryo. Geologie en Mijnbouw 47, 2, p. 121-125.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0TklUS0F0Zkt5T0k/view)
('Evolution of an embryon'. Evolution of Late Oligocene- Miocene Lepidocyclina embryon can be measured as 'degree of curvature', which can then be used for age determination and correlations. With example of values in East Java- Madura stratigraphy)

Van Gorsel, J.T. (1987)- Depositional sequence stratigraphy. Short Course, Indonesian Association of Geologists (IAGI), Jakarta, p. 1-180.
(Course notes for first sequence stratigraphy course in Indonesia)

Zachariasse, W.J., W.A. Berggren, W. Si & B.T. Huber (2017)- On the taxonomic identity of the planktonic foraminiferal species *Globorotalia barisanensis* Le Roy, 1939. J. Foraminiferal Research 47, 4, p. 389-398.
(online at: https://pdfs.semanticscholar.org/fc9d/05e55c75424d1fd9590ca8ec7cbfe39d4a51.pdf?_ga=2.250484229.209811469.1529357724-1507267566.1529357724)
(Holotype of Globorotalia barisanensis Le Roy 1939 from M Miocene Lower Palembang Fm in upper Kassikan section, Tapung Kiri River, C Sumatra, is non-keeled species, transitional between Gr. peripheroacuta and Gr praefohsi (zones N10-N11). Holotype should be viewed as senior synonym of Gr. peripheroacuta, but more practical to conserve latter name)

X.3. Jurassic- Cretaceous (8)

Belford D.J. & V. Scheibnerova (1971)- Turonian foraminifera from the Carnarvon Basin, Western Australia, and their palaeogeographical significance. Micropaleontology 17, p. 331-344.
(Presence of E-M Turonian planktonic foraminifera Praeglobotruncan stephani, P. hagni, P. imbricata, P. helvetica and Hedbergella spp from wells in Carnarvon Basin show Tethyan character)

Liard, T. & R. Liard (2016)- Mesozoic vertebrate footprints discoveries from ASEAN. In: Proc. 52nd Annual Session Coord. Comm. Geoscience Progr. E and SE Asia (CCOP), Bangkok, p. 40-51.
(online at: www.ccop.or.th/download/as/52as2.pdf)
(Mesozoic vertebrate footprints found in several SE Asia countries with Indochinese redbeds, incl. in six Late Triassic- E Cretaceous formations in NE Thailand. Also in Laos, Malay Peninsula Singapore (Sentosa), Cambodia)

Lucas, S.G. (2006)- The *Psittacosaurus* biochron, Early Cretaceous of Asia. Cretaceous Research 27, p. 189-198.
(E Cretaceous primitive ceratopsian dinosaur Psittacosaurus widespread in Asia, from W Siberia, Mongolia, China to Thailand, and possibly Japan. Psittacosaurus signifies Barremian-Albian time, ~105-125 Ma)

Munasri (2001)- Radiolarian research in some Mesozoic provinces in Indonesia. Berita Sedimentologi 16, p. 26-30.
(Brief review of radiolaria studies from Cretaceous of C Java (Karangsambung), M Cretaceous from S Sulawesi (Bantimala), Jurassic-Cretaceous from SE Kalimantan (Meratus Range), M-L Triassic and E Cretaceous from W Timor (Nefokoko, Kefamenanu, Kolbano) and M Jurassic from Rotti island)

Sahni, M. R. (1937)- Discovery of *Orbitolina*-bearing rocks in Burma, with a description of *Orbitolina birmanica* sp. nov. Records Geological Survey India 71, p. 360-375.

Sato, T. (1956)- Correlation du Jurassique inferieur japonais en basant sur les ammonites fossiles. J. Geol. Soc. Japan 62, 732, p. 490-503. *(Japanese with French abstract)*
(online at: www.jstage.jst.go.jp/article/geosoc1893/62/732/62_732_490/_pdf)
(Incl. circum-Pacific 'Aalenian' (Late Toarcian?) ammonite distribution map, showing distribution of Hammatoceras in E Indonesia)

Taylor, B.A. & D.W. Haig (2001)- Barremian Foraminifera from the Muderong Shale, oldest marine sequence in the Cretaceous of the southern Carnarvon Basin, Western Australia. Micropaleontology 47, p. 125-143.
(E Cretaceous Muderong Shale from S Carnarvon Basin outcrop and wells with restricted marine Ammobaculites spp.- Haplophragmoides- Miliammina- Verneuilinoides association)

Zhang, Q., A.P. Rasnitsyn, B. Wang & H. Zhang (2018)- Myanmarinidae, a new family of basal Apocrita (Hymenoptera: Stephanoidea) from mid-Cretaceous Burmese amber. Cretaceous Research 81, p. 86-92.
(online at: https://www.sciencedirect.com/science/article/pii/S019566711730366X)
(New family of wasps Myanmarinidae established from species discovered in M Cretaceous (E Cenomanian, ~99 Ma) Burmese amber from amber mines in Hukawng Valley of Kachin State, Myanmar)

X.4. Triassic (16)

Chablais, J. (2010)- Sedimentology and biostratigraphy of the Upper Triassic atoll-type carbonates of the Sambosan Accretionary Complex (Panthalassan domain; Japan). Doct. Thesis Universite Geneve, Sc.4212, p. 1-204.
(online at: https://archive-ouverte.unige.ch/unige:8438)

Chablais, J., R. Martini & T. Onoue (2010)- *Aulotortus friedli* from the Upper Triassic gravitational flow deposits of the Kumagawa River (Kyushu, southwest Japan). Paleontological Research 14, 2, p. 151-160.
(Involutinid benthic foram Aulotortus friedli reported from U Triassic (Norian-Rhaetian) carbonates from capped seamount in Sambosan Accretionary Complex. From shallow-water limestone clasts in debris flow along Kumagawa River)

Chablais, J., R. Martini, E. Samankassou, T. Onoue & H. Sano (2010)- Microfacies and depositional setting of the Upper Triassic mid-oceanic atoll-type carbonates of the Sambosan Accretionary Complex (southern Kyushu, Japan). Facies 56, p. 249-278

Chonglakmani, C. & J.A. Grant-Mackie (1984)- Handbook of Triassic index fossils (preliminary). Dept. Mineral Resources, Bangkok, 21p.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1984/24271.pdf)
(Selection of age-significant Triassic microfossils from Thailand and adjacent regions. Ammonites and thin-shelled molluscs (Daonella, Halobia, Monotis) most important. With 5 plates and range chart)

De Franceschi, D. & C. Vozenin-Serra (1997)- The Upper Vietnamese Triassic flora: palaeogeographical significance. Comptes Rendus Academie Sciences, Paris, ser. 2, 324, 4, p. 333-340.
(Vietnamese Triassic flora belongs to coastal floristic assemblage of SW Pacific. Affinities of plant-fossil assemblage with Krusin flora of NW Borneo)

Metcalfe, I. & R.S. Nicol (2007)- Conodont biostratigraphic control on transitional marine to non-marine Permian-Triassic boundary sequences in Yunnan-Guizhou, China. Palaeogeogr. Palaeoclim. Palaeoecology 252 p. 56-65.
(Permian- Triassic boundary defined by first appearance of conodont species Hindeodus parvus, also bivalve Claraia. In S Chian Permo-Triassic boundary marked by two volcanic ash beds)

Metcalfe, I., R.S. Nicoll & B.R. Wardlaw (2007)- Conodont index fossil *Hindeodus changxingensis* Wang fingers greatest mass extinction event. Palaeoworld 16, p. 202-207.
(Marine conodont fossil species, Hindeodus changxingensis restricted to very narrow stratigraphic interval from Permian-Triassic extinction event into very earliest Triassic ('disaster species'?). Geographically widespread in Tethyan Region)

Nicoll, R.S., I. Metcalfe & C.Y. Wang (2002)- New species of the conodont genus *Hindeodus* and the conodont biostratigraphy of the Permian-Triassic boundary interval. J. Asian Earth Sci. 20, 6, p. 609-631.
(Four new species of conodont genus Hindeodus just above Permian- Triassic boundary in S. China; boundary based on first appearance of Hindeodus parvus. Change in conodont biofacies at P-T boundary from Neogondolella (Clarkina)-dominated faunas to Hindeodus-dominated faunas, associated with increase in silt)

Peybernes, C. (2016)- Upper Triassic mid-oceanic shallow water ecosystems of the Panthalassa Ocean: insights from the Sambosan Accretionary Complex, Southwest Japan. Doct. Thesis Universite de Geneve, Sc 4914, p. 1-229.
(online at: https://archive-ouverte.unige.ch/unige:84250)
(U Triassic carbonates of Sambosan Accretionary Complex in SW Japan: (1) limestone clasts embedded in volcaniclastic matrix with microbialite-rich Ladinian?- Lower Carnian reef biota; (2) sponge-dominated Late Carnian- Norian (Rhaetian?) reefs (built on top of basalts of low-latitude Panthalassic seamount).

Paleogeographic affinities with S. Tethys. Limestone commonly as clasts in volcanoclastic breccias, probably mass-movement deposits from seamount collapse in mid-oceanic realm (very few ooids?))

Peybernes, C., J. Chablais & R. Martini (2015)- Upper Triassic (Ladinian?-Carnian) reef biota from the Sambosan Accretionary Complex, Shikoku, Japan. Facies 61, 4, p. 1-27.
(M-L Triassic (Ladinian?-Carnian) reef limestone from Sambosan Accretionary Complex, Shikoku Island, SW Japan, with scleractinian corals, calcified sponges, calcareous algae, foraminifera and microproblematica (older than previously identified reef limestones in Sambosan Complex))

Peybernes, C., J. Chablais, T. Onoue, G. Escarguel & R. Martini (2016)- Paleoecology, biogeography, and evolution of reef ecosystems in the Panthalassa Ocean during the Late Triassic: Insights from reef limestone of the Sambosan Accretionary Complex, Shikoku, Japan. Palaeogeogr. Palaeoclim. Palaeoecology 457, p. 31-51.
(Ur Triassic sponge-coral- Tubiphytes reef limestone from Sambosan Accretionary Complex at Shikoku Island, Japan, with two types of reefs, Ladinian?- E Carnian and Late Carnian-Rhaetian? Strong paleobiogeographic affinity of Late Triassic W Panthalassa reef biota with those of S Tethys Ocean)

Peybernes, C., J. Chablais, T. Onoue & R. Martini (2016)- Mid-oceanic shallow-water carbonates of the Panthalassa domain: new microfacies data from the Sambosan Accretionary Complex, Shikoku Island, Japan. Facies 62, 4, p. 1-27.
(During Late Triassic carbonate platforms expanded on continental shelves and island arcs in Tethys realm and coeval mid-oceanic shallow-water environments of Panthalassa domain. U Triassic limestone of Sambosan Accretionary Complex, SW Japan, suggests typical Sambosan platform probably carbonate bank with submerged margins and mosaic of microfacies in platform interior instead of atoll-type platform)

Stanley G.D. & T. Onoue (2015)- Upper Triassic reef corals from the Sambosan Accretionary Complex, Kyushu, Japan. Facies 61, 1, p. 1-27.
(Ten U Triassic coral taxa, incl. Retiophyllia, from limestones of Sambosan accretionary complex of Japan, with remains of reefs and carbonate sediment deposited on Pacific volcanic atolls. High degree of endemism; some paleogeographic connection with W Tethys, Pamir Mts and Timor (Craspedophyllia ramosa Roniewicz))

Van Voorthuysen, J.H. (1940)- Beitrag zur Kenntnis des inneren Baus von Schale und Sipho bei triadischen Ammoniten. Doct. Thesis, University of Amsterdam, p. 1-143.
(Study of internal structure of U Triassic ammonites from Timor (Tropitida, Placites spp., Cladiscitidae, Phylloceratidae and Arcestidae))

Vozenin-Serra, C. (1977)- Contribution a lôetude de la paleoflore du Sud-est Asiatique (Cambodge, Laos, Vietnam). These Doct. Etat., Universite de Paris, p. 1-310. *(Unpublished)*
('Contribution to the study of the paleoflora of SE Asia (Cambodia, Laos, Vietnam)')

X.5. Paleozoic (15)

Cantrill, R.C. (2003)- Aspects of Ordovician conodonts and the stratigraphy of Thailand, Malaysia, and Tasmania. Ph.D. Thesis, University of Tasmania, p. 1-158
(online at: http://eprints.utas.edu.au/19158/1/whole_CantrillRobinCrawford2003_thesis.pdf)
(Incl. Ordovician conodonts from shallow tropical Lower Setul Lst from Langkawi Island (Tremadoc- Ashgill), Thung Song Lst of mainland Thailand and Ko Tarutao, Karmberg Lst of central S Tasmania)

Cantrill, R.C. & C. Burrett (2003)- The Greater Gondwana distribution of the Ordovician conodont *Panderodus nogamii* (Lee) 1975. Courier Forschungsinstitut Senckenberg 245, 1, p. 407-421.
(Panderodus nogamii (formerly Scolopodus nogamii), first described from N Korea, also in Lw Ordovician of Thailand, Malaysia, N and S China, Australia and Argentina. It ranged through M- early U Ordovician and was restricted to shallow water carbonates in tropical- subtropical paleolatitudes of Greater Gondwana)

Cleal, C.J. (2017)- A global review of Permian macrofloral biostratigraphical schemes. In: S.G. Lucas & S.Z. Shen (eds.) The Permian Timescale, Geol. Soc., London, Spec. Publ. 450, p.
(Incl. mention of Djambi flora of Sumatra, which It may be regarded as transitional flora with taxa characteristic of both Euramerica (e.g. medullosaleans and marattialean ferns) and Cathaysia (e.g. Tingia, Cathaysiodendron) realms)

Dzulkafli, M.A., Basir Jasin & M.S. Leman (2016)- Taksonomi radiolaria dari genus *Pseudoalbeillella* berusia Perm dari Pos Blau, barat daya Kelantan, Semenanjung Malaysia. Bull. Geol. Soc. Malaysia 62, p. 13-21.
(online at: https://gsmpubl.files.wordpress.com/2017/04/bgsm2016003.pdf)
('Taxonomy of the Permian radiolarian genus Pseudoalbeilella from Pos Blau, SW Kelantan, Peninsular Malaysia. Seven species of Permian Pseudoalbaillella radiolarian genus in chert between Gua Musang and Cameron Highlands, SW of Kelantan. Association of Pseudoalbaillella with Hegleria mammilla indicates Pseudoalbaillella globosa Assemblage Zone (early M Permian; Roadian))

Edgell, H.S. (2004)- Upper Devonian and Lower Carboniferous Foraminifera from the Canning Basin, Western Australia. Micropaleontology 50, p. 1-26.
(Foraminifera from U Devonian reef complex and overlying Lower Carboniferous in N Canning Basin of NW Australia 20 species of tournayellids and endothyrids. Striking resemblance to microfaunas of Russia, Kazakhstan and South China)

Foster, C.B., G.A. Logan, R.E. Summons, J.D. Gorter & D.S. Edwards (1997)- Carbon isotopes, kerogen types and the Permian-Triassic boundary in Australia: implications for exploration. The APPEA J. 37, p. 472-489.
(Permian- Triassic boundary characterized by massive extinction of marine fauna. In non-marine sections in E Australia, top of coal measures used as top Permian. Carbon isotopic (δ13C) shift of either organic matter or carbonates may be used to delimit P-T boundary)

Hayasaka, I. (1917)- On the brachiopod genus *Lyttonia* with several Japanese and Chinese examples. J. Geol. Soc. Tokyo 24, p. 43-53.

Krassilov, V.A. (2000)- Permian phytogeographic zonality and its implications for continental position and climates. Paleontological Journal (Moscow) 34, Suppl. 1, p. 587-598.
(online at: http://paleobotany.ru/pdf/Krassilov%202000%20-%20Permian%20Phytogeographic%20Zonality%20and%20Its.pdf)
(Revised scheme of Permian plant geography. Contrary to prevalent opinion views Sumatra (Jambi) and West Irian Jaya floras as 'mixed Eurogondwana' floras, and mapped in 'subtropical humothermic belt' with 'Gondwanan' India- Australia floras)

Metcalfe, I. & Y. Isozaki (2009)- Current perspectives on the Permian-Triassic boundary and end-Permian mass extinction: Preface. J. Asian Earth Sci. 36, p. 407-412.

(End-Permian mass extinction nowwell dated at 252.6 ± 0.2 Ma (U-Pb) and Permian-Triassic GSSP level is dated by interpolation at 252.5 Ma. Conodonts evolved rapidly in first 1 million years following mass extinction leading to high-resolution conodont zones. Nature of double-phased Late Permian extinction (at Guadalupian-Lopingian boundary and P-T boundary, linked to large igneous provinces, suggests superplume activity that involved geomagnetic polarity change and massive volcanism)

Shen, S.Z. (2018)- Global Permian brachiopod biostratigraphy: an overview. In: S.G. Lucas & S.Z. Shen (eds.) The Permian timescale, Geol. Soc., London, Special Publ. 450, p. 289-320.
(Permian brachiopod successions in five major paleobiogeographical realms. For Gondwanaland and peri-Gondwanan regions including Cimmerian blocks, Bandoproductus, Cimmeriella characteristic of Cisuralian (E Permian). Lower Permian brachiopods from Mengkareng Fm in Sumatra (Crippa et al. 2014) viewed as Sakmarian in age and grouped with S Thailand- Malaysia Cimmerian/ Sibumasu faunas))

Smith, T.E., T. Bernecker, S. Bodorkos, J. Gorter, L. Hall, T. Hill, E. Holmes, A. Kelman, K. Khider, J. Laurie et al. (2017)- The impact of recalibrating palynological zones to the chronometric timescale: revised stratigraphic relationships in Australian Permian and Triassic hydrocarbon-bearing basins. AAPG/SEG 2017 Int. Conf. Exhibition, London, Search and Discovery Art. 51443, 9p. *(Poster Presentation)*
(online at: http://www.searchanddiscovery.com/documents/2017/51443smith/ndx_smith.pdf)
(Recalibration of Permian and Triassic spore-pollen palynozones and numerical ages from high-precision radiometric dating of tuffs)

Smith, T.E. & D. Mantle (2013)- Late Permian palynozones and associated CA-IDTIMS dated tuffs from the Bowen Basin, Australia. Geoscience Australia Record 2013/46, p. 1-39.
(onine at: https://d28rz98at9flks.cloudfront.net/72990/Rec2013_046.pdf)
(Calibration of Late Permian palyno-zones with radiometric ages of associated tuffs. Dulhuntyispora parvithola zone APP5 spans >5 Myrs (~254.4- 263 Ma). Latest Permian Playfordiaspora crenulata and Protohaploxypinus microcorpus palynozones APP6 between ~252-254.4 Ma) (see also Laurie et al. 2016))

Vachard, D. (2016)- Macroevolution and biostratigraphy of Paleozoic foraminifers. In: Stratigraphy and Timescales, 1, Chapter 4, Elsevier, p. 257-323.

Vachard, D. (2017)- Permian smaller foraminifers: taxonomy, biostratigraphy and biogeography. In: S.G. Lucas & S.Z. Shen (eds.) The Permian Timescale, Geol. Soc., London, Spec. Publ. 450, p.

Zhou, W., M. Wan, R.A. Koll & J. Wang (2017)- Occurrence of the earliest gigantopterid from the basal Permian of the North China Block and its bearing on evolution. Geological J., 2017, p. 1-10. *(in press)*.
(Gigantopterid plants characteristic floral element in Permian Cathaysian floras. However, in China oldest known occurrences later than in N America (Artinskian) and Sumatra/Indonesia (Asselian-Sakmarian). New gigantopterid Gigantonoclea cf. mira from basal Permian (Asselian) strata in N China Block represents oldest unequivocal evidence for gigantopterids)

X.6. Quaternary Hominids, Mammals and associated stratigraphy (299)

Amano, N., A.M. Moigne, T. Ingicco, F. Semah, R. DueAwe &T. Simanjuntak (2016)- Subsistence strategies and environment in Late Pleistocene- Early Holocene Eastern Java: evidence from Braholo Cave. Quaternary Int. 416, p. 46-63.
(Climatic shifts during Pleistocene- Holocene transition in Island SE Asia resulted in changes in landscapes, impacting vertebrate community composition and human subsistence economies. Braholo Cave in E Java with mainly arboreal fauna in Late Pleistocene - E-M Holocene, but older cave deposits dominated by animal taxa associated with open environments (bovids, cervids). Reflects forest expansion at onset of Holocene)

Ambrose, S.H. (1998)- Late Pleistocene human bottlenecks, volcanic winter, and differentiation of modern humans. J. Human Evolution 34, p. 623-651.
(Toba eruption on Sumatra may have caused human population bottleneck and modern human races may have differentiated abruptly only 70,000 years ago (see also commentary by Gathorne-Hardy 2003))

Ambrose, S.H. (2003)- Did the super-eruption of Toba cause a human population bottleneck? Reply to Gathorne-Hardy and Harcourt-Smith. J. Human Evolution 45, p. 231-237.
(~73 ka Toba eruption larger than previously estimated, and caused millennium of coldest temperatures of U Pleistocene. Genetic studies suggest real population bottleneck during first half of last glacial period, but no mass extinctions. We are descendants of few small groups of tropical Africans who united in face of adversity)

Ansyori, M.M. (2010)- Fauna from the oldest occupation layer in Song Terus cave, Eastern Java, Indonesia- biochronological significance of the Terus layer. Masters Thesis, Mus. Natl. Histoire Naturelle, Paris, p. 1-71.
(online at: http://hopsea.mnhn.fr/pc/thesis/M2_Ansyori_MIRZA.pdf)
(Oldest archeological assemblage in Song Terus cave in Weru, Pacitan, S Mountains of S Java ranges in age from ~300-80 ka (M-L Pleistocene). Late Pleistocene faunas of upper Terus Layer (80-120 ka) resemble Punung fauna of Badoux. Big fauna dominated by Cervidae, Bovidae and Suidae. Tropical forest environment)

Anton, S.C. (1997)- Developmental age and taxonomic affinity of the Mojokerto child, Java, Indonesia. American J. Physical Anthropology 102, 4, p. 497-514.
(Mojokerto child (Perning I), Java, discovered in 1936, has been assigned to Australopithecus and multiple species of Homo modjokertensis, etc. Developmental age range probably 4-6 years)

Anton, S.C. (1999)- Cranial growth in *Homo erectus*: how credible are the Ngandong juveniles? American J. Physical Anthropology 108, 2, p. 223-236.
(Ngandong 5 and 9 skulls are adults, 8 an older juvenile and 2 is a juvenile. Adult cranial contours and pattern of contour development similar between Ngandong adults and other H. erectus adults. Nothing to suggest that Ngandong transitional in vault shape between H. erectus and H. sapiens, despite relatively large brain)

Anton, S.C. (2002)- Evolutionary significance of cranial variation in Asian *Homo erectus*. J. Physical Anthropology 118, 4, p. 301-323.
(Principal components analysis of calvarial shape suggest regional differentiation between N Asian and SE Asian H. erectus. Most recent SE Asian fossils (e.g. Ngandong) conform to SE Asian pattern)

Anton, S.C. & C.C. Swisher (2003)- Early dispersals of *Homo* from Africa. Annual Rev. Anthropology 33, p. 271-296.
(Hominin presence outside Africa started at ~1.6-1.8 Ma (H. erectus). Includes discussion on reliability of ages of Sangiran hominid ('poo-poo everything'; JTvG). Earliest hominins at Sangiran older than 1.0 Ma and probably 1.3 Ma or older)

Aplin, K. & K.M. Helgen (2010)- Quaternary murid rodents of Timor Part I: New material of *Coryphomys buehleri* Schaub, 1937, and description of a second species of the genus. Bull. American Museum Natural History 341, p. 1-80.
(online at: http://digitallibrary.amnh.org/handle/2246/6077)

(Archeological excavations in E Timor in 1968- 2002 provided new material of Late Pleistocene and recently extinct gigantic murine (rat) Coryphomys (originally described by Hooijer 1965))

Argue, D., C.P. Groves, M.S.Y. Lee & W.L. Jungers (2017)- The affinities of *Homo floresiensis* based on phylogenetic analyses of cranial, dental, and postcranial characters. J. Human Evolution 107, p. 107-133.
(online at: www.sciencedirect.com/science/article/pii/S0047248417300866)
(Analyses of multiple morphological characteristics suggest H. floresiensis (~65-90ka) is closest to early hominins (>1.75 Ma; Homo habilis?), suggesting probably long-surviving relict of early hominin lineage, with hitherto unknown migration out of Africa. Not recent descendants of either H. erectus or H. sapiens)

Arif, J., Y. Kaifu, H. Baba, M.E. Suparka, Y. Zaim & T. Setoguchi (2002)- Preliminary observation of a new cranium of *Homo erectus* (Tjg-1993.05) from Sangiran, Central Jawa. Anthropological Science 110, 2, p. 165-177.
(New well-preserved hominid skull found in 1993 from Bapang (Kabuh) Fm at Tanjung village, Sangiran region, C Java. Relocated to basal or middle part of Bapang Fm)

Aziz, F. (2001)- New insight on the Pleistocene fauna of Sangiran and other hominid sites in Java. In: T. Simanjuntak et al. (eds.) Sangiran: man, culture and environment in Pleistocene times, Yayasan Obor Indonesia, Jakarta, p. 260-271.
(Same paper as Aziz, 2000)

Baab, K.L. (2010)- Cranial shape in Asian *Homo erectus*: geographic, anagenetic, and size-related variation. In: C.J. Norton & D.R. Braun (eds.) Asian Paleoanthropology: from Africa to China and beyond, Springer, Chapter 6, p. 57-79.
(No strong support for linear progression in neurocranial skull shape from Sangiran to Ngandong via Sambungmacan/Ngawi)

Baab, K.L. (2016)- The place of *Homo floresiensis* in human evolution. J. Anthropological Sci. 94, p. 5-18.
(online at: www.isita-org.com/jass/Contents/2016vol94/Baab/26829572.pdf)
(Two evolutionary scenarios for small-bodied Homo floresiensis on Flores in Late Pleistocene: (1) H. floresiensis was dwarfed descendent of H. erectus, or (2) remnant of older lineage, perhaps descended from H. habilis. Could be either)

Baab, K.L., K.P. McNulty & K. Harvati (2013)- *Homo floresiensis* contextualized: a geometric morphometric comparative analysis of fossil and pathological human samples. PlosOne 8, 7, e69119, p. 1-11.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0069119)
(Geometric morphometric analyses of LB1 cranium shows Homo floresiensis is distinct from healthy modern humans and from those with pathological conditions (hypothyroidism, Laron syndrome, microcephism), and is most similar to Homo erectus (but smaller))

Baab, K.L. & Y. Zaim (2017)- Global and local perspectives on cranial shape variation in Indonesian *Homo erectus*. Anthropological Science 125, 2, p. 67-83.
(online at: https://www.jstage.jst.go.jp/article/ase/125/2/125_170413/_pdf/-char/en)
(Skull shapes of Homo erectus from Sangiran, Ngandong, Sambungmacan, and Ngawi, and compared to H. erectus from outside of Java. Asian H. erectus fossils can be distinguished from African/Georgian ones. Late Indonesian H. erectus from sites like Ngandong, distinct from all other H. erectus groups, including older C Java fossils. Younger Sangiran fossils more closely approach Ngandong/Sambungmacan/Ngawi pattern)

Baba, H., F. Aziz & S. Narasaki (2000)- Restoration of the face of Javanese *Homo erectus* Sangiran 17 and re-evaluation of regional continuity in Australasia. In: W. Dong (ed.) Proc. 1999 Beijing Int. Symposium on paleoanthropology, Acta Anthropologica Sinica 19 (Suppl.), p. 34-40.
(Facial characteristic of restored Sangiran 17 skull do not support hypothesis of Thorne and Wolpoff of regional continuity between H. erectus and Late Pleistocene Australians)

Baba, H., F. Aziz & N. Watanabe (1990)- Morphology of the fossil hominid tibia from Sambungmacan, Java. Bull. National Science Museum, Tokyo, D15, p. 9-18.
(online at: http://ci.nii.ac.jp/naid/110000008554/en)
(Hominid tibial fragment Sm 2 collected in 1977 with other vertebrate bones from Sambungmacan, presumably from Kabuh equivalent beds. Rel. advanced character)

Bae, C.J. (2010)- The late Middle Pleistocene hominin fossil record of eastern Asia: synthesis and review. American J. Physical Anthropology 143, Suppl. 51, p.75-93.
(Traditionally, M Pleistocene hominin fossils that cannot be allocated to Homo erectus s.l. or modern H. sapiens in E Asia, classified as archaic, early, or premodern H. sapiens. Increasing number of M Pleistocene hominin fossils currently being assigned to H. heidelbergensis, but little evidence in E Asia to support assignment to H. heidelbergensis. Best to continue to use term archaic H. sapiens)

Bae, C.J. (2018)- Hominin distribution and density patterns in Pleistocene China: climatic influences. Palaeogeogr. Palaeoclim. Palaeoecology, p. *(in press)*
(Hominins during E - M Pleistocene appear restricted to C and S China. By advent of late M Pleistocene hominins found regularly in N China. Hominins restricted range due to climatic variation during E- early M Pleistocene, but more successful to adapt to changing climates in late M Pleistocene)

Balzeau, A. (2005)- Specificites des caracteres morphologiques internes du squelette cephalique chez *Homo erectus*. Doct. Thesis Museum Natl. Histoire Naturelle, Paris, p. 1-394.
(online at: http://hopsea.mnhn.fr/pc/thesis/PhD_Balzeau2005.pdf)
('Internal morphologic characteristics of Homo erectus skull')

Balzeau, A. (2013)- Thickened cranial vault and parasagittal keeling: correlated traits and autapomorphies of *Homo erectus*? J. Human Evolution 64, 6, p. 631-644.

Balzeau, A. & P. Charlier (2016)- What do cranial bones of LB1 tell us about *Homo floresiensis*? J. Human Evolution 93, p. 12-24.
(No support for attribution of holotype of Homo floresiensis (LB1) from Liang Bua, Flores, to H. sapiens)

Bartstra, G.J. (1978)- The Patjitan culture: a preliminary report on new research. In: F. Ikawa-Smith (ed.) Early Palaeolithic in South and East Asia, Mouton Publishers, The Hague, p. 29-36.
(Paleolithic 'Pacitanian' relatively advanced stone tools from along Baksoko River near Punung, S coast of E Java, first described by Von Koenigswald (1936). 1500 additional artifacts collected in 1972 excavations. Three fluvial terraces, all with stone artifacts but unfossiliferous. Pacitan culture may be work of Homo soloensis)

Bartstra, G.J. (1987)- Late *Homo erectus* or Ngandong man of Java. Palaeohistoria 29, p. 1-7.
(online at: https://ugp.rug.nl/Palaeohistoria/article/download/24867/22315)
(Review of Ngandong man ('Homo soloensis') from 'High Terrace' deposits of Solo river in Kendeng zone of Java, Generally regarded as last representative of Homo erectus in SE Asia. Associated with rich mammal fauna, mainly bovids, indicative of open forest environment. Oldest Solo terrace sediments in C Java must date from beginning of N-ward directed drainage pattern and probably Late Pleistocene in age. U-series ages from Ngandong bone samples mainly between ~40-80 ka. No in-situ stone implements, but nearby surface finds small chalcedony artefacts ('Ngandong Industry'))

Bartstra, G.J. (1994)- Indonesia in the period of *Homo habilis* and *Homo erectus*. In: S.J. de Laet et al. (eds.) History of humanity: prehistory and the beginnings of civilization, 1, UNESCO, Paris, p. 89-99.

Bartstra, G.J. (1994)- Indonesia in the period of *Homo sapiens neanderthalensis.* In: S.J. de Laet et al. (eds.) History of humanity: prehistory and the beginnings of civilization, 1, Chapter 17, UNESCO, Paris, p. 167-175.

Bartstra, G.J., D.A. Hooijer, B. Kallupa & M.A. Akib (1992)- Notes on fossil vertebrates and stone tools from Sulawesi, Indonesia, and the stratigraphy of the northem Walanae depression. Palaeohistoria 33/34, p. 1-18.

(online at: http://rjh.ub.rug.nl/Palaeohistoria/article/view/25054/22512)
(Pleistocene Archidiskodon-Celebochoerus vertebrate fauna and artifacts of the Cabenge Industry. Fossils and artifacts may not be contemporaneous. Singkang embayment/ Tempe depression separates SW peninsula of Sulawesi from rest of island and was covered by sea until recently)

Bellwood, P.S. (2017)- First Islanders: prehistory and human migration in island Southeast Asia, Wiley-Blackwell, p. 1-384.
(Recent review of history of hominids in SE Asia)

Bellwood, P.S. (2017)- *Homo erectus* and *Homo floresiensis-* Archaic hominins in island Southeast Asia. In: First Islanders: prehistory and human migration in island Southeast Asia, Wiley, Chapter 3, p. 34-85.
(Discussion of lithic stone tool industries reportedly associated with Homo erectus in various regions of island SE Asia. Two categories: (1) 'chopper/chopping-tool industries' characterized by Java Pacitanian industry and supposedly work of Homo erectus; (2) 'pebble and flake industries' more characteristic of early Homo sapiens)

Bibi, F. & G. Metais (2016)- Evolutionary history of large herbivores of South and Southeast Asia (Indomalayan Realm). In: F.S. Ahrestani & M. Sankaran (eds.) The ecology of large herbivores in South and Southeast Asia, Springer Verlag, p. 15-88.

Bocherens, H., F. Schrenk, Y. Chaimanee, O. Kullmer, D. Morike, D. Pushkina & J.J. Jaeger (2017)- Flexibility of diet and habitat in Pleistocene South Asian mammals:Implications for the fate of the giant fossil ape *Gigantopithecus*. Quaternary Int. 434, p. 148-155.
(Giant fossil ape Gigantopithecus blacki from SE Asia survived until ~100,000 years ago. Known only from isolated teeth and lower jaw fossils. Carbon isotopes of tooth enamel from N Thailand suggest Gigantopithecus was forest-dweller with vegetarian diet. Demise possibly due to forest reduction during glacial periods)

Bonde N. & B. Westergaard (2004)- Progress in hominid classification: cladistic approaches. In: Miscelanea en homenaje a Emiliano Aguirre, Paleoantropologia, p. 37-57.
(Elegant general review of hominid evolution)

Borel, A., R. Cornette & M. Baylac (2017)- Stone tool forms and functions: a morphometric analysis of modern humans' stone tools from Song Terus Cave (Java, Indonesia). Archaeometry 59, 3, p. 455-471.

Borel, A., C. Gaillard, M.H. Moncel, R. Sala, E. Pouydebat, T. Simanjuntak & F. Semah (2013)- How to interpret informal flakes assemblages? Integrating morphological description, usewear and morphometric analysis gave better understanding of the behaviors of anatomically modern human from Song Terus (Indonesia). J. Anthropological Archaeology 32, 4, p. 630-646.
(Analysis of thousands of Holocene (~11-5 ka) hominid stone tools from upper ('Keplek') levels of Song Terus cave in Southern Mountains of Central Java)

Bouteaux, A., A.M. Moigne & T. Jacob (2008)- Palaeontology, palaeoecology and taphonomy of Middle Pleistocene: mammals in the hominid site of Sangiran dome. In: E. Indriati (ed.) Recent Advances on Southeast Asian palaeoanthropology and archaeology, Int. Seminar on Southeast Asian Paleoanthropology, Yogyakarta, p. 160-168.

Bouteaux, A., A.M. Moigne, F. Semah & T. Jacob (2007)- Les assemblages fauniques associes aux sites a *Homo erectus* du dome de Sangiran (Pleistocene moyen, Java, Indonesie). Compt. Rendus Palevol 6, 3, p. 169-179.
('The faunal assemblages associated with Homo erectus sites at Sangiran (M Pleistocene, Java)'. Homo erectus in fluvial deposits outcropping in several localities. Thirteen taxa of M Pleistocene mammals determined. Lithic tools rare at these sites. Mechanical action of water responsible for accumulations)

Bouteaux, A., A.M. Moigne & K. Setiagama (2008)- Etudes archeozoologiques de sites javanais du Pleistocene: les sites de plein air du dome de Sangiran (Java central) et le site en grotte de Song Terus (Java est). In: Archaeozoology of the Near East VIII, Travaux Maison de l'Orient et de la Mediterranee, 49, p. 79-97.
(online at: www.persee.fr/doc/mom_1955-4982_2008_act_49_1_2702)
('Archeozoologic studies at Pleistocene sites of Java: Sangiran Dome (C Java) and Song Terus cava (E Java)')

Brandon-Jones, D. (1998)- Pre-glacial Bornean primate impoverishment and Wallace's Line. In: R. Hall & J.D. Holloway (eds.) Biogeography and geological evolution of SE Asia, Backhuys Publ., Leiden, p. 393-403.
(online at: http://searg.rhul.ac.uk/searg_uploads/2016/01/Brandon-Jones.pdf)

Brandt, R.W. (1976)- The Hoabinhian of Sumatra : some remarks. Modern Quaternary Research in Southeast Asia 2, p. 49-52.
('Hoabinhian' stone tools from Medan area, N Sumatra. Called 'sumatraliths', made of andesite. Named after E Holocene stone artifact assemblages from N Vietnam)

Brasseur, B., M.A. Courty, B. Deniaux, N. Fedoroff, B. Poreda & F. Semah (2007)- The geodynamic context of the ca. 0.8 Ma layers in the Sangiran Dome (Central Java. Indonesia): traces of the fall-event linked to the Australasian tektites strewn field? In: N.R. Catto (ed.) 17th INQUA Congress, The tropics: heat engine of the Quaternary, Cairns, Quaternary Int. 167-168, Supplement, p. *(Abstract only)*

Brongersma, L.D. (1958)- On an extinct species of the genus *Varanus* (Reptilia, Sauria) from the island of Flores. Zoologische Mededelingen 36, 7, p. 113-125.
(online at: www.repository.naturalis.nl/document/149846)
(Late Pleistocene(?) lizard Varanus hooijeri n.sp. from cave deposits on Flores, collected by T.L. Verhoeven. Associated with Mesolithic flake and blade industry)

Brown, P. (1992)- Recent human evolution in East Asia and Australasia. Philosophical Trans. Royal Soc. London, B, 337, p. 235-242.
(online at: www.peterbrown-palaeoanthropology.net/Brown%201992%20235-242.pdf)

Brown, P. (1994)- Cranial vault thickness in Asian *Homo erectus* and modern *Homo sapiens*. Courier Forschungs-Institut Senckenberg 171, p. 33-46.
(Thickened cranial vault bone argued to distinguished Homo erectus from H. sapiens, but considerable overlap with modern Australian aboriginal populations and (Chinese) archaic Homo sapiens)

Brown, P. (2012)- LB1 and LB6 *Homo floresiensis* are not modern human (*Homo sapiens*) cretins. J. Human Evolution 62, p. 201-224.
(Late Pleistocene Homo floresiensis from Liang Bua cave, Flores, associated with stone artefacts and bones of Stegodon. Recent arguments that characteristics of H. floresiensis consistent with dwarfism and delayed development in modern human (Homo sapiens) cretins deemed invalid: no modern human skeleton known with attributes of H. floresiensis)

Brown, P. & T. Maeda (2009)- Liang Bua *Homo floresiensis* mandibles and mandibular teeth: a contribution to the comparative morphology of a new hominin species. J. Human Evolution 57, 5, p. 571-596.
(Morphological and metrical comparisons of mandibles of Homo floresiensis from Liang Bua place them outside H. sapiens and H. erectus ranges of variation. Mandibles, cranial and postcranial anatomy, limb proportions and functional anatomy of wrist and shoulder in many respects closer to African early Homo or Australopithecus than to later Homo)

Brumm A., I. Kurniawan, M.W. Moore, Suyono, R. Setiawan, Jatmiko, M.J. Morwood & F. Aziz (2009)- Early Pleistocene stone technology at Mata Menge, Central Flores, Indonesia. In: F. Aziz et al. (eds.) Geology, palaeontology and archaeology of the Pleistocene Soa Basin, Central Flores, Indonesia, Chapter 4, Pusat Survei Geologi, Bandung, Spec. Publ. 36, p. 119-137.

(E Pleistocene stone tool assemblage from Mata Menge in Soa Basin, Flores, is oldest Palaeolithic stone assemblage in well-dated stratigraphic context in SE Asia. 91% of 459 artefacts made from volcanic rocks)

Brumm, A., M.C. Langley, M.W. Moore, B. Hakim, M. Ramli, I. Sumantri, B. Burhan, A.M. Saiful, L. Siagian, Suryatman, R. Sardi, A. Jusdi, Abdullah, A.P. Mubarak et al. (2017)- Early human symbolic behavior in the Late Pleistocene of Wallacea. Proc. National Academy Sciences USA 114, 16, p. 4105-4110.
(Leang Bulu Bettue cave and rock-shelter in SW Sulawesi with relicts of Late Pleistocene (~30-22ka) Homo sapiens. Include previously unknown items of personal ornamentation, portable art, etc., fashioned from body parts of endemic animals)

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Bulbeck, D., I. Sumantri & P. Hiscock (2004)- Leang Sakapao 1, a second dated Pleistocene site from South Sulawesi, Indonesia. In: S.G. Keates & J. Pasveer (eds.) Quaternary Research in Indonesia, Chapter 8, Modern Quaternary Research in Southeast Asia 18, p. 111-128.
(Rock shelter at base of limestone cliff in SW Sulawesi with evidence of Late Pleistocene (~31-20 ka) human habitation (stone artefacts, pottery, etc.)))

Chaimanee, Y. (1997)-Les rongeurs du Plio- Pleistocene de Thailand. Doct. Thesis University Montpellier II, p. 1-215.
(online at: http://library.dmr.go.th/Document/DMR_Technical_Reports/1997/546.pdf)
('The rodents of the Plio-Pleistocene of Thailand'. 20 Late Pliocene- Pleistocene rodent localities in Thailand, with 41 species, most of them extant species in Thailand or in Sundaland)

Chaimanee, Y. (1998)- Plio-Pleistocene rodents of Thailand. Thai Studies in Biodiversity 3, Bangkok, p. 1-303.
(Study of rodent fossils from 20 fissure fill and cave deposits. English version of 1997 French thesis)

Chaimanee, Y. (2004)- *Siamopithecus eocaenus*, anthropoid primate from the Late Eocene of Krabi, Thailand. In: C.F. Ross & R.F. Kay (eds.) Anthropoid origins: new visions, Kluwer/Springer, New York, Chapter 14, p. 329-356.
(Late Eocene primate Siamopithecus eocaenus from Krabi coal mine in Peninsular Thailand is anthropoid. Large primate, of body size estimated between 8-9 kg, with many shared dental characters with other Asian taxa such as Fondaungia, Amphipithecus, and Myanmarpithecus (amphipithecids))

Chaimanee, Y. (2009)- Diversity of Cenozoic mammals in Thailand; contribution to palaeoenvironments. J. Geol. Soc. Thailand 1, p. 11-16.
(online at: http://library.dmr.go.th/Document/J-Index/2009/2973.pdf)
(Oldest mammalian fossils of Thailand in late Eocene Krabi basin, Peninsular Thailand (27 taxa). Species association indicates humid tropical forest. Nong Ya Plong Late Oligocene locality with many groups of mammals, all new. Several M-L Miocene mammalian localities in N Thailand, incl. first hominoid fossils (orang-utan-like, 12, 8 Ma) in SE Asia. Pliocene and Pleistocene fossils were recovered from caves and fissure fills, with micromammals indicating cooler climate than today from Pliocene- M Pleistocene, with mixture of grasslands with forests. More humid climate with tropical rain forests appears after E Pleistocene, in relation with monsoon development and led to explosion of Rattus group in region)

Chaimanee, Y. & J.J. Jaeger (1993)- Pleistocene mammals of Thailand and their use in the reconstruction of the paleoenvironments of Southeast Asia. Spafa J. 3, p. 4-10.

Chaimanee, Y., J.J. Jaeger & V. Suteethorn (1993)- Pleistocene micromammals of Thailand: contribution to paleoenvironmental changes, biochronology and biodiversity. In: T. Thanasuthipitak (ed.) Int. Symposium Biostratigraphy of mainland Southeast Asia: facies and paleontology (BIOSEA), Chiang Mai University, 1, p. 125-136.

(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1993/6786.pdf)
(11 M-L Pleistocene localities in Thailand with 19 genera of rodents (squirrels, rats, mice))

Chaimanee, Y., V. Lazzari, M. Benammi, A. Euriat & J.J. Jaeger (2015)- A new small pliopithecoid primate from the Middle Miocene of Thailand. J. Human Evolution 88, p. 15-24.

Chaimanee, Y., R. Lebrun, C. Yamee & J.J. Jaeger (2011)- A new Middle Miocene tarsier from Thailand and the reconstruction of its orbital morphology using a geometric-morphometric method. Proc. Royal Society (London), B 278, p. 1956-1963.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3107645/pdf/rspb20102062.pdf)
(New species of nocturnal primate Tarsius from M Miocene of Mae Moh coal mine, N Thailand. (today Tarsius is endemic to islands of SE Asia)

Chaimanee, Y., T. Thein, S. Ducrocq, A.N. Soe, M. Benammi, T. Tun, T. Lwin, S. Wai & J.J. Jaeger (2000)- A lower jaw of *Pondaungia cotteri* from the Late Middle Eocene Pondaung Formation (Myanmar) confirms its anthropoid status. Proc. National Academy Sciences 97, 8, p. 4102-4105.
(online at: www.pnas.org/content/97/8/4102.full.pdf)

Ciochon, R.L. (2009)- The mystery ape of Pleistocene Asia. Nature 459, 7249, p. 910-911.
(Reports of fossil teeth, etc., of E Pleistocene humans in SE China (Longgupo, etc.) and interpreted as related to Homo erectus probably erroneous; instead belong to an unknown ape species, living in forested region)

Ciochon, R.L., V.T. Long, R. Larick, L. Gonzales, R. Grun, J. de Vos et al. (1996)- Dated co-occurrence of *Homo erectus* and *Gigantopithecus* from Tham Khuyen Cave, Vietnam. Proc. National Academy Sciences USA 93, p. 3016-3020.
(online at: www.pnas.org/content/93/7/3016.full.pdf)
(Tham Khuyen Cave deposits in N Vietnam with hominoid teeth dated as 475 ± 125 ka (electron spin resonance). Teeth represent Homo erectus and Gigantopithecus blacki. Co-occurrence demonstrates >1 million years of co-existence of these two species throughout E Asia in E-M Pleistocene)

Corlett, R.T. (2010)- Megafaunal extinctions and their consequences in the tropical Indo-Pacific. In: S.G. Haberle et al. (eds.) Altered ecologies: fire, climate and human influence on terrestrial landscapes, Terra Australis 32, ANU Press, Chapter 8, p. 117-131.
(online at: www.jstor.org/stable/pdf/j.ctt24h8rj.10.pdf)
(Global Quaternary Megafauna Extinction (QME) event eliminated 2/3 of all mammal genera, with most well-dated extinctions occurring between ~50-30 ka. Java probably had fully modern fauna by 120 ka. In Indo-Pacific hominin impacts probably major factor behind most large vertebrate extinctions and range restrictions in the past 130 kyrs and probably earlier ones)

Covert, H.H., M.W. Hamrick, T. Dzanh & K.C. McKinney (2001)- Fossil mammals from the Late Miocene of Vietnam. J. Vertebrate Palaeontology 21, p. 633-636.

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(online at: http://journal.frontiersin.org/article/10.3389/fevo.2016.00075/full)
(Late Pleistocene Deep Skull from Niah Cave in Sarawak the oldest (>50 ka) anatomically modern human from island SE Asia)

De Lumley, H., F. Semah & T. Simanjuntak (1993)- Les outils du Pithecanthrope. Les dossiers d'Archeologie 184, p.62-68.
('The tools of Pithecanthropus')

Demeter, F., A.M. Bacon, Nguyen Kim Thuy, Vu The Long, H. Matsumura, Ha Huu Nga, M. Schuster, Nguyen Mai Huong & Y. Coppens (2004)- An archaic *Homo* molar from Northern Vietnam. Current Anthropology 45, 4, p. 535-541.
(Human tooth from Ma U'Oi Cave, N Vietnam, interpreted as archaic Homo, with characteristics transitional between H. erectus and H. sapiens. Associated fauna characteristic of Stegodon-Ailuropoda (Panda) complex, of estimated late M Pleistocene- Late Pleistocene age)

Demeter, F., L.L. Shackelford, A.M. Bacon, P. Duringer, K. Westaway, T. Sayavongkhamdy et al. (2012)- Anatomically modern human in Southeast Asia (Laos) by 46 ka. Proc. Nat. Academy Sciences U.S.A. 109, 36, p. 14375ï 14380.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3437904/pdf/pnas.201208104.pdf)
(Modern human cranium from Tam Pa Ling (Cave of Monkeys), ~260 km NNE of Vientiane, Laos. Sediments minimum age of 51-46 ka. Maximum age of ~63 ka from U-dating of bone. Establishes evidence for fully modern humans in mainland SE Asia by ~50 ka)

Dennell, R.W. (2009)- The Palaeolithic settlement of Asia. Cambridge University Press, p. 1-548.

Dennell, R.W. (2014)- Hallam Movius, Helmut de Terra, and the line that never was; Burma 1938. In: K. Boyle et al. (eds.) Living in the landscape: essays in honour of Graeme Barker, McDonald Inst. Archaeological Research, Cambridge, p. 11-34.

Dennell, R. (2015)- Life without the Movius Line: the structure of the East and Southeast Asian Early Palaeolithic. Quaternary International 400, p. 14-22.
(Movius Line is no longer appropriate view of Early Paleolithic of E and SE Asia, and should be disregarded. E Asia not isolated throughout E-M Pleistocene, but open to immigration during interglacials. M Pleistocene 'Acheulean' stone tool assemblages possibly present in Ngebung (Sangiran) C Java)

Dennell, R.W. & W. Roebroeks (2005)- An Asian perspective on early human dispersal from Africa. Nature 438, 7071, p. 1099-1104.

De Terra, H. (1943)- The Pleistocene of Burma. In: Research on early man in Burma, Trans. American Philosophical Soc., N.S. 32, 3, p. 271-340.
(Five Pleistocene terraces along Irrawaddy River, unconformably over tilted Pliocene- E Pleistocene 'Upper Irrawaddy Beds'. Contain 'Anyathian' Paleolithic stone tools)

De Terra, H. & H.L. Movius (1943)- Research on early man in Burma, with supplementary reports upon the Pleistocene vertebrates and mollusks of the region, and Pleistocene geology and early Man in Java. Trans. American Philosophical Soc., N.S. 32, 3, p. 267-464.
(Results of American SE Asian Expedition for early Man)

Detroit, F. (2006)- *Homo sapiens* in Southeast Asian archipelagos: the Holocene fossil evidence with special reference to funerary practices in East Java. In: H.T. Simanjuntak et al. (eds.) Proc. Symp. Austronesian diaspora and the ethnogeneses of people in Indonesian archipelago, Solo, Indonesian Inst. Science (LIPI), Jakarta, p. 186-204.
(On Homo sapiens fossils from Gunung Sewu area, Southern Mountains of Java (Song Terus, Song Keplek, Goa Braholo), and their funeral practices)

De Vos, J., F. Aziz, E. Setiabudi, G.D. van den Bergh & E.Y. Patriani (2007)- A new vertebrate fossil locality near Sumberdadi, Mojokerto (East Java, Indonesia). In: Int. Senckenberg conference, Late Neogene and Quarternary biodiversity and evolution: regional developments and interregional correlations, Weimar 2006, 2, CFS Courier Forschungergebnisse Senckenberg 259, p. 175-180.
(Vertebrate fossils from new locality in sand quarry near Sumberdadi, ~30 km N of Mojokerto, E Java, include Stegodon trigonocephalus cf. ngandongensis, Bibos palaeosondaicus, Axis lydekkeri, Rusa sp. and crocodile remains. Advanced stage of Stegodon suggests late M - Late Pleistocene, comparable with Ngandong fauna)

Djubiantono, T. (1993)- Umur alat batu Kedungcumpleng di daerah Kaliuter, Solo, Jawa Tengah. Proc. 22nd Ann. Conv. Indon. Assoc. Geol. (IAGI), Bandung, 1, p. 292-303.
('Age of the Kedungcumpleng stone tools in the Kaliuter area, Solo, Central Java'. Pleistocene correlations and chronostratigraphy and correlations of sections in Kaliuter area, 30km N of Solo. Kedungcumpleng site in Jaramillo paleomagnetic episode (0.87-0.97 Ma), and considered site with oldest hominid stone tools in Java today)

Djubiantono, T., F. Semah, A.M. Semah, H. Saleki, C. Falgueres & G. Feraud (1994)- Pertanggalan radiometri pada lapisan pengandung *Homo erectus* di Ngebung (Jawa Tengah, Indonesia) hasil pendahuluan. Proc. 23rd Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 1, p. 184-191.
('Radiometric dating of the Homo erectus-bearing layer in Ngebung (Central Java, Indonesia), preliminary results'. Ngebung site at NW side of Sangiran Dome with rather variable results from different radiometric dating methods just above 'Grenzbank' layer: Ar/Ar of amphibole from tuff ~811 ± 25 ka; U/Th and ESR much younger)

Djubiantono, T. & F. Semah (1993)- L'evolution de la region de Solo au Quaternaire. In: Le Pithecanthrope de Java, Les dossiers d'Archeologie 184, p. 46-49.

Duangkrayom, J., S.Q. Wang, T. Deng & P. Jintasakul (2017)- The first Neogene record of *Zygolophodon* (Mammalia, Proboscidea) in Thailand: implications for the mammutid evolution and dispersal in Southeast Asia. J. Paleontology 19. 1, p. 179-193.
(online at: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/ etc)
(New material of Zygolophodon from Tha Chang sand pits in NE Thailand, of probably Late Miocene age, is first record of zygodont proboscidean in SE Asia)

Dubois, E. (1940)- The fossil human remains discovered in Java by G.H.R. von Koenigswald and attributed by him to *Pithecanthropus erectus* in reality remains of *Homo wadjakensis* (syn. *Homo soloensis*). Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 43, p. 494-496.

Dubois, E. (1940)- The fossil human remains discovered in Java by G.H.R. von Koenigswald and attributed by him to *Pithecanthropus erectus* in reality remains of *Homo sapiens soloensis*. Continuation. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 43, p. 842-854.

Dubois, E. (1940)- The fossil human remains discovered in Java by G.H.R. von Koenigswald and attributed by him to *Pithecanthropus erectus* in reality remains of *Homo sapiens soloensis*. Conclusion. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 43, p. 1268-1275.

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Durband, A. (2009)- Southeast Asian and Australian paleoanthropology: a review of the last century. J. Anthropological Sciences 87, p. 7-31.
(Review of study of hominids of SE Asia and Australia since work of Dubois. Populations represented by fossils from Sangiran and Ngandong, Java, went extinct without contributing genes to modern Australians)

Eckhardt, R.B., M. Henneberg, A.S. Weller & K.J. Hsu (2014)- Rare events in earth history include the LB1 human skeleton from Flores, Indonesia, as a developmental singularity, not a unique taxon. Proc. National Academy Sciences USA 111, 33, p. 11961-11966.
(online at: www.pnas.org/content/111/33/11961.full.pdf
(Homo floresiensis is regional variant of Homo sapiens. Abnormal features of specimen LB1 not necessarily typical of whole assemblage (disputed by Westaway et al. 2015))

Fairbairn, A.S., G.S. Hope & G.R. Summerhayes (2006)- Pleistocene occupation of New Guinea's highland and subalpine environments. World Archaeology 38, 3, p. 371-386.
(online at: http://palaeoworks-dev.anu.edu.au/wp-content/uploads/2012/08/Fairbairnetal2006.pdf)
(Human colonization of New Guinea Highlands pre-dated 35 ka. Plant food use dates from at least 31 ka, i.e. in earliest millenia of human presence. Humans persisted in intermontane valleys through Late Glacial Maximum)

Falgueres, C., F. Semah, H. Saleki & H. Widianto (2016)- Geochronology of early human settlements in Java: what is at stake? Quaternary Int. 416, p. 5-11.
(About challenges of chronological framework of early human settlements of Java, from oldest Lower Pleistocene Homo erectus up to dispersals after Last Glacial Maximum)

Fauzi, M.R., M.F.S. Intan & T. Simanjuntak (2015)- Karakter teknologi litik *Homo erectus* progresif berdasarkan himpunan artefak dari Situs Matar, Bojonegoro. Kalpataru, Majalah Arkeologi 24, 1, p. 1-11.
(online at: https://jurnalarkeologi.kemdikbud.go.id/index.php/kalpataru/article/view/41/18)
('Lithic technology characteristic of progressive Homo erectus based on artifact assemblage from Matar Site, Bojonegoro'. New Matar site on E banks of Solo River (equivalent of 20m terrace of Ngandong?) with stone tool assemblage of 'progressive Homo erectus'. Flakes and massive tools such as bola, spheroidal, polyhedrons, and chopper-chopping tools)

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('The industrial assemblage of Song Keplek, East Java; a new view on stone tools of modern man at the beginning of the Holocene in Indonesia'. Song Keplek stone tool assemblage from Punung area ~6000-4000 years old)

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(online at: www.persee.fr/docAsPDF/arch_0044-8613_2007_num_74_1_3914.pdf)
(Rel. long history of prehistoric stone tool making in Sumatra, incl. Acheuleen tools from Ogan River tributaries in S Sumatra, possibly from Homo erectus)

Forestier, H., D. Driwantoro, D. Guillaud, Budiman & D. Siregar (2006)- New data for the prehistoric chronology of South Sumatra. In: T. Simanjuntak et al. (eds.) Archaeology: Indonesian perspective, R.P. Soejono's Festschrift, LIPI Press, Jakarta, p. 177-192.
(online at: http://horizon.documentation.ird.fr/exl-doc/pleins_textes/divers17-07/010041012.pdf)

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(Review of major Late Paleolithic lithic (stone tool) assemblages in Indonesia and Philippines)

Forestier, H., T. Simandjuntak, F. Detroit & V. Zeitoun (2010)- Unite et diversite prehistorique entre Java et Sumatra. Archipel 80, p. 19-44.
(online at: www.persee.fr/docAsPDF/arch_0044-8613_2010_num_80_1_4175.pdf)
('Prehistoric unity and diversity of Java and Sumatra'. Prehistory of Indonesia from 20000- 5000 BP. Java marked by technical heterogeneity in produced stone tools, Sumatra more homogenous technical choices, with a unifacial pebble shaping which still belongs to Hoabinhian tradition)

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('The first indications of an Acheuleen facies in South Sumatra'. Paleolithic stone tools from Ogan River tributaries)

Forestier, H., T. Simanjuntak, D Guillaud, D Driwantoro, K. Wiradnyana, D. Siregar, R. Due Awe & Budiman (2005)- Le site de Togi Ndrawa, ile de Nias, Sumatra nord : les premieres traces dǘune occupation hoabinhienne en grotte en Indonesie. Comptes Rendus Palevol 4, p. 727ï 733.
(The Togi Ndrawa site, Nias Island, Noth Sumatra: the first record of a Hoabinhian cave settlement in Indonesia'. Late Pleistocene- E Holocene classic Hoabinhian pebble artefacts, forest and coastal fauna and human bones in Togi Ndrawa cave, NE Nias)

Forestier, H., H. Sophady, S. Puaud, R. Mourer, L. Billault, M. Philippe & V. Zeitoun (2014)- New evidence of old stone tools from the Mekong terraces, Cambodia. Comptes Rendus Palevol 13, p. 109-120.
(M Pleistocene terrace of the Mekong River S of SW Laos with stone tools. Terrace T.II contains coarse pebble formations, yielding most abundant lithic industry and also yielded abundant 0.77 Ma age tektites)

Gathorne-Hardy, F.J. & W.E.H. Harcourt-Smith (2003)- The super-eruption of Toba, did it cause a human bottleneck? J. Human Evolution 45, p. 227-230.
(No evidence to support hypothesis that Toba supereruption at 73.5 ka caused bottleneck in human, animal or plant populations)

Glover, I.C. (1981)- Leang Burung 2: an Upper Palaeolithic rock shelter in south Sulawesi, Indonesia. Modern Quaternary Research in Southeast Asia 6, Balkema, Rotterdam, p. 1-38.
(Late Pleistocene (~30ka) flaked stone tools from shelter at base of limestone cliff E of Tompokbalang in Maros District, S Sulawesi)

Grenet, M., J. Sarel, R. Fauzy, A.A. Oktaviana, B. Sugiyanto, J.M. Chazine & F.X. Ricaut (2016)- New insights on the late Pleistocene- Holocene lithic industry in East Kalimantan (Borneo): the contribution of three rock shelter sites in the karstic area of the Mangkalihat peninsula. Quaternary Int. 416, p. 126-150.

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Grimaud-Herve, D., F. Valentin, F. Semah, A.M. Semah & H. Widianto (1994)- Le femur humain Kresna 11 compare a ceux de Trinil. Comptes Rendus Academie Sciences, Paris 318, II, p. 1139-1144.
1994.
('The human femur Kresna 11 compared to those from Trinil'. Thigh bone named Kresna 11 discovered in 1992 from the 'Grenzbank' horizon in Sangiran Dome shows several Homo erectus features, similar to Trinil)

Grimaud-Herve, D. & H. Widianto (1993)- Les Hominides de Java. In: F. Semah & D. Grimaud-Herve (eds.) Le Pithecanthrope de Java a la decouverte du chainon manquant, Les dossiers d'Archeologie 184, p. 30-45.

Grimaud-Herve, D., H. Widianto & T. Jacob (2000)- Two new human fossil remains discovered in Sangiran (Central Java, Indonesia). In: W. Dong (ed.) Proc. 1999 Beijing Int. Symposium on paleoanthropology, Acta Anthropologica Sinica 19 (Suppl.), p. 41-45.
(Fragmented Homo erectus skull from Kabuh Beds at Grogol Wetan site. Ar-dating indicates 0.78 ± 0.29 Ma. Second hominid skull from Kabuh Beds at Bukuran site)

Harrison, T. (1978)- Present status and problems for Paleolithic studies in Borneo and adjacent islands. In: F. Ikawa-Smith (ed.) Early Palaeolithic in South and East Asia, Mouton Publishers, The Hague, p. 38-57.
(Few or no Paleolithic fossils found on Borneo (unlike Sulawesi, Java, etc.) and some may be Chinese drugstore imports. Niah cave in Sarawak rel. rich record of human and associated fossils dating to ~35 ka. MPleistocene tektites of coastal NW Brunei cannot be used for dating of 'Jerudong Terrace', as most or all are reworked into younger gravel terraces)

Hawkins, S., S. O'Connor, T.R. Maloney, M. Litster, S. Kealy, J.N. Fenner, K. Aplin et al. (2017)- Oldest human occupation of Wallacea at Laili Cave, Timor-Leste, shows broad-spectrum foraging responses to late Pleistocene environments. Quaternary Science Reviews 171, p. 58-72.
(online at: http://www.sciencedirect.com/science/article/pii/S0277379117302470)
(Laili Cave in Laleia, Timor-Leste, preserves oldest human occupation in Wallacea (~43-45 ka), earlier than other Pleistocene sites known in Wallacea. Pleistocene humans used abundant local chert and engaged in mobile broad-spectrum foraging)

Heaney, L.R. (1985)- Zoogeographic evidence for Middle and Late Pleistocene land bridges to the Philippine islands. Modern Quaternary Research in Southeast Asia 9, p. 127-143.
(In Sunda shelf region rel. widespread faunal distribution, corresponding stronlgy with M and Late Pleistocene land bridge formation. Number of species corresponds with size of island area. Elephant species rel. widespread in SE Asia Pleistocene, probably because they are strong swimmers and do not necessary indicate land bridges. Unlikely there was a land bridge between Asia and The Philippines, except M Pleistocene connection from NE Borneo to Palawan. Therefore unlikely that Homo erectus reached Philippines)

Heaney, L.R. (1986)- Biogeography of mammals in SE Asia: estimates of rates of colonization, extinction and speciation. Biological J. Linnean Soc. 28, 1-2, p. 127-165.

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(online at: www.pnas.org/content/111/33/11967.full.pdf)
(LB1 type specimen of Homo floresiensis ('hobbit') viewed as anomalous specimen in small-bodied Australomelanesian Homo sapiens population, possibly afflicted by Down syndrome. Conclusion disputed by Westaway et al. 2015)

Henneberg, M. & J. Schofield (2008)- The Hobbit trap. Money, fame, science, and the discovery of a ñnew species. Wakefield Press, Kent Town, S.A., p. 1-159.
(Book critical of Homo floresiensis ('hobbit') interpretations, claiming it to be much younger than reported and be 'normal' dwarfed Homo sapiens island population. Also 2011 2nd Edition)

Hertler, C., Y. Rizal & Y. Zaim (2007)- Habitat differentiation in the Pleistocene of Jawa- Introduction of the new Pleistocene fossil locality Majalengka. Courier Forschungsinstitut Senckenberg 259, p. 165-175.
(Pleistocene mammal faunas from Java three successive faunas based proboscidean genera: (1) E Pleistocene Mastodon- Geochelone fauna, (2) early M Pleistocene Stegodon- Homo erectus fauna and (3) late M Pleistocene Elephas- Homo sapiens fauna. Stegodon - Homo erectus fauna contains elements from successive migration waves and different ecological settings. Introduce model for endemic evolution in Java and newly discovered Pleistocene mammal locality in W Java)

Hooijer, D.A. (1947)- *Pithecanthropus, Meganthropus* en *Gigantopithecus*. Geologie en Mijnbouw 9, 12, p. 230-239.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0VWdxUXpJQl9fYlU/view)
(Review of Von Koenigswald (1940) and Weidenreich (1945) monographs on Java hominids)

Hooijer, D.A. (1948)- *Rhinoceros sondaicus* Desmarest from kitchen-middens of Bindjai Tamiang, North Sumatra. Geologie en Mijnbouw 10, 5, p. 115-116.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0alp1ZkJOMzhwQkU/view)
(Rhinoceros tooth from Paleolithic (Late Pleistocene?) refuse-heap at Binjai Tamiang, 15km from mouth of Tamiang River in N Sumatra. Mound composed of layers of Meretrix mollusc shells alternating with ashy layers with stone tools and remains of land mammals, fish and crabs). Evidence of cannibalism. Rhinoceros tooth comparable to material from Sibrambang cave (Padang Highlands))

Hooijer, D.A. (1948)- Prehistoric teeth of man and of the orang-utan from Central Sumatra, with notes on the fossil orang-utan from Java and Southern China. Zoologische Mededelingen, Leiden, 29, p. 175-301.
(online at: http://repository.naturalis.nl/document/150691)
(Study of collection of teeth excavated by Dubois in late 1880's from Lida Ajer and other caves in Padang Highlands, C Sumatra. Includes orang-utan skulls and some hominid teeth indistinguishable from modern humans (may be oldest known Homo sapiens in Indonesian region (~70ka;Westaway et al. 2017). Also extensive study of Pleistocene orang-utan teeth from Java and S China))

Hooijer, D.A. (1950)- The fossil hippopotamidae of Asia, with notes on the Recent species. Zoologische Verhandelingen, Leiden, 8, p. 3-124.
(online at: http://repository.naturalis.nl/document/148880)
(Review of fossil Hippopotamus from Asia. Three species in Pleistocene of Java, formerly recored as Hippopotamus antiquus, H. simplex and H. namadicus by Von Koenigswald here renamed Hippopotamus sivalensis koenigswaldi (E Pleistocene Djetis fauna, rel. small, Trinil, Mojokerto, Kedung Brubus), H. sivalensis sivajavanicus and H. sivalensis soloensis n.ssp (M-U Pleistocene, descended from H. koenigswaldi)

Hooijer, D.A. (1950)- Fossil evidence of Australomelanesian migrations in Malaysia? Southwestern J. of Anthropology 6, 4, p. 416-422.
(Presence of big-teeth humans resembling Australian aboriginals and Melanesians may once lived in Malaya-Indonesian region, as evidenced by Wajak man of Java (Dubois 1920) and subfossil man from Gua Lawa Sampung and Bojonegoro as described by Mijsberg (1932). View disputed by Von Koenigswald 1952)

Hooijer, D.A. (1957)- Three new giant prehistoric rats from Flores, Lesser Sunda Islands. Zoologische Medelingen 35, p. 229-314.
(online at: www.repository.naturalis.nl/document/150080)
(Three new forms of large Pleistocene rat fossils collected by Verhoeven in cave deposits at Liang Toge near Warukia, Manggarai, W Flores: Papagomys armandvillei besar, P. verhoeveni and Spelaeomys florensis. Associated with Mesolithic flake and blade industry)

Hooijer, D.A. (1960)- Quaternary gibbons from the Malay Archipelago. Zoologische Verhandelingen 46, 1, p. 1-42.
(online at: http://repository.naturalis.nl/document/148964)
(Apes (Pongidae) from the Indonesian region include Late Pleistocene gibbons (Symphalangus and Hylobates) from limestone caves in Padang Highlands, C Sumatra, collected by Dubois. Possibly also incave material from C Java (Pacitan) and Sarawak)

Hooijer, D.A. (1962)- Quaternary langurs and macaques from the Malay archipelago. Zoologische Verhandelingen 55, 1, p. 1-64.
(online at: www.repository.naturalis.nl/document/148851)
(Pleistocene monkeys (Presbytis, Trachypithecus, Macaca) from limestone caves in Padang Highlands , C Sumatra, and cave deposits on Java)

Hope, G.S. & S.G.Haberle (2005)- The history of the human landscapes of New Guinea. In: A. Pawley et al. (eds.) Papuan pasts: cultural, linguistic and biological histories of Papuan-speaking peoples, Australian National University, Canberra, p. 541-554.
(online at: http://palaeoworks.anu.edu.au/pubs/Hope&Haberle05.pdf)
(Humans have been in highland valleys of New Guinea for at least 30,000 years and presumably occupied savannah plains that then connected New Guinea to Australia for 50,000 years or more)

Hou, Yamei, R. Potts, B. Yuan, Z. Guo, A. Deino, W. Wang, J. Clark, G. Xie & W.W. Huang (2000)- Mid-Pleistocene Acheulean-like stone technology of the Bose Basin, South China. Science 287, 5458, p. 1622-1626.
(Stone artifacts from T4 terrace deposits in Bose basin, S China, associated with tektites dated to 803 ± 3 ka and represent oldest known cutting tools in E Asia, compatible with Acheulean technologies in Africa. Stone

tool- tektite horizon also contains abundant charcoal and silicified wood fragments, suggesting episode of forest burning initiated by tektite event)

Htike, Thaung & N.N. San (2014)- New discovery of anthracotheres (Mammalia, Artiodactyla) from the Middle Miocene of Sagaing Region, Upper Myanmar. Shwebo University Research J. 5, 1, p. 89-96.
(online at: https://umoar.mu.edu.mm/handle/123456789/155)
(Re-investigation of anthracotheres from M Miocene Male and Thanbinkan localities of Sagaing Region, Upper Myanmar. Four species recognized. Most are forest- dwelling brachyodont and bunodont species)

Hyodo, M. (2001)- The Sangiran geomagnetic excursion and its chronological contribution to the Quaternary geology of Java. In: T. Simanjuntak et al. (eds.) Sangiran: man, culture, and environment in Pleistocene times, Proc. Int. Colloq. Sangiran Solo- Indonesia, Solo 1998, Jakarta, Nat. Res. Centre Archaeology, p. 320-335.
(Sangiran geomagnetic excursion, characterized by westerly declinations, ranges from below T1 Tuff up to just above diatomite layer in Pucangan Fm. Age estimated 1.56-1.48 Ma. Good time marker for tectonic event in M Matuyama chron in C and E Java)

Hyodo, M., H. Nakaya, A. Urabe, H. Saegusa, S. Xue, J. Yin & X. Ji (2002)- Paleomagnetic dates of hominid remains from Yuanmou, China, and other Asian sites. J. Human Evolution 43, 1, p. 27-41.
(Geomagnetic data suggest Homo erectus-affinity Yuanmou, SW China, hominid remains from early Brunhes chron ~0·7 Ma). Hominid fossils from Sangiran and Mojokerto, Java, do not exceed 1·1 Ma in age)

Ibrahim, Y.K., L.T. Tshen. K.E. Westaway, E.O. Cranbrook, L. Humphrey, R.F. Muhammad, J.X. Zhao & L.C. Peng (2013)- First discovery of Pleistocene orangutan (*Pongo* sp.) fossils in Peninsular Malaysia: biogeographic and paleoenvironmental implications. J. Human Evolution 65, 6, p. 770-797.
(Nine isolated fossil Pongo teeth from Batu caves in Peninsular Malaysia are first fossil Pongo in Peninsular Malaysia, showing ancestral Pongo successfully passed biogeographical divide between mainland SE Asia and Sunda subregion before 500 ka. Pongo remains indicate prevailing forest habitat, implying that during Last Glacial Phase sufficient forest cover persisted in W coast plain of Peninsular Malaysia)

Ingicco, T. (2010)- Les primates quaternaires de Song Terus (Java Est, Indonesie): implications paleobiogeographiques et archeozoologiques pour l'Asie du Sud-Est. Doct. Thesis Museum Nat. Histoire Naturelle, Paris, p. 1-281.
('The Quaternary primates of Song Terus (East Java, Indonesia): paleobigeographic and archeozoological implications for SE Asia')

Ingicco, T., A.M. Moigne, K.F. Setiagama, N. Amano, A. Kusno, A. Mirza, F.S. Detroit, A.M. Semah & F. Semah (2014)- The fauna of Song Terus cave (East Java, Indonesia) and LGM impact on the Sunda shelf: is the Keplek fauna an impoverished Wajak fauna? In: N. Amano et al. (eds.) Southeast Asia: human evolution, dispersals and adaptations, 17th Congress UISPP, Burgos, p. 110-115.

Ingicco, T., G. van den Bergh, J. de Vos, A. Castro, N. Amano & A. Bautista (2016)- A new species of *Celebochoerus* (Suidae, Mammalia) from the Philippines and the paleobiogeography of the genus *Celebochoerus* Hooijer, 1948. Geobios 49, 4, p. 285-291.
(Celebochoerus is suid (pig familiy) with large upper tusks, previously only known from Plio-Pleistocene of Sulawesi. Canine fragment of Celebochoerus from Cagayan Valley, Luzon, named Celebochoerus cagayanensis n. sp.. Probable migration route from Philippines to Sulawesi, possibly out of Taiwan)

Jacob, T. (1966)- The sixth skull cap of *Pithecanthropus erectus*. American J, Physical Athropology 25, 3, p. 243-259.
(New find of skull cap of Pithecanthropus erectus from upper Trinil beds of Sangiran, C Java. Pithecanthropine characteristics, with cranial capacity ~975 cm3. Absence of cranial base does not necessarily indicate that specimen was victim of cannibalism)

Jacob, T. (1967)- Some problems pertaining to the racial history of the Indonesian Region. Doct. Thesis, Rijksuniversiteit Utrecht, p. 1-156. *(Unpublished)*

Jacob, T. (1974)- Studies on human variation In Indonesia. J. Natl. Medical Assoc. 66, 5, p. 389-399.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2609252/pdf/jnma00489-0061.pdf)

Jacob, T. (1977)- Evolution of man in Southeast Asia. Berkala Ilmu Kedokteran (J. Medical Sciences) 9, 4, p. 175-186.
(online at: https://journal.ugm.ac.id/bik/article/download/4724/3981)

Jacob, T. (1984)- The fossil skull cap from Sambungmachan and its implication to human evolution. Berkala Bioanthropologi Indonesia 1, p. 19-27.

Jaeger, J.J., A.N. Soe, O. Chavasseau, P. Coster, E.G. Emonet, F. Guy, R. Lebrun, A. Maung, A.A. Khyaw et al. (2011)- First hominoid from the Late Miocene of the Irrawaddy Formation (Myanmar). PLoS One 6, 4, e17065, p. 1-14.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0017065)
(Neogene fossil mammal fauna known in Irrawaddy Fm in C Myanmar for over a century. First hominoid fossil in Myanmar found together with Hipparion mammal fauna from Late Miocene Irrawaddy Fm (10.4- 8.8 Ma). New species of Khoratpithecus)

Janensch, W. (1911)- Die Reptilienreste (exkl. Schildkroten). In: M.Selenka & M. Blanckenhorn (eds.) Die Pithecanthropus-Schichten auf Java, Geologische und Palaontologische Ergebnisse der Trinil Expedition (1907 und 1908), Wilhelm Engelmann, Leipzig, p. 61-74.
('The reptilian remains, excluding turtles' of Trinil, C Java. Descriptions of Gavialis bengawanicus Dubois, Crocodilus ossifragus and varanus vertebrae)

Janssen, R. (2017)- Isotope records in vertebrate fossils: from the Cretaceous seas to Quaternary Sundaland. Ph.D. Thesis Vrije Universiteit, Amsterdam, p. 1-142.
(online at: https://research.vu.nl/en/publications/isotope-records-in-vertebrate-fossils-from-cretaceous-seas-to-qua)
(Includes chapter on carbon and Sr isotopes of teeth enamel of Pleistocene mammals from Trinil-Sangiran, C Java, and Padang Highlands))

Janssen, R., J.C.A. Joordens, D.S. Koutamanis, M.R. Puspaningrum, J. de Vos, J.H.J.L. van der Lubbe & H.B. Vonhof (2016)- Tooth enamel stable isotopes of Holocene and Pleistocene fossil fauna reveal glacial and interglacial paleoenvironments of hominins in Indonesia. Quaternary Science Reviews 144, p. 145-154.
(online at: https://research.vu.nl/ws/portalfiles/portal/41930773)
(Carbon and oxygen O- isotope composition of tooth enamel used to investigate diet and habitat of bovids, cervids and suids from Holocene and Pleistocene sites on Java and Sumatra. Data from Homo erectus bone samples possibly contaminated by diagenetic overprint. C4-dominated isotope signal suggests Trinil specimens in Dubois and Selenka collections were excavated from narrow stratigraphical interval representing dry, glacial climate state (similar in Sangiran))

Jungers, W., S.G. Larson, W. Harcourt-Smith, M.J. Morwood, T. Sutikna, Rokhus Due Awe & T. Djubiantono (2009)- Descriptions of the lower limb skeleton of *Homo floresiensis*. J. Human Evolution 57, 5, p. 538-554.

Kaifu, Y. (2006)- Advanced dental reduction in Javanese *Homo erectus*. Anthropological Science 114, 1, p. 35-43.
(online at: https://www.jstage.jst.go.jp/article/ase/114/1/114_1_35/_pdf/-char/ja)
(Postcanine tooth crowns of late E Pleistocene Homo erectus from Sangiran smaller than those of older H. erectus remains of same region. Javanese H. erectus still robust root systems, presumably primitive retention)

Kaifu, Y. (2017)- Archaic hominin populations in Asia before the arrival of modern humans, their phylogeny and implications for the ñSouthern Denisovansò. Current Anthropology 58, Suppl. 17, p. S418-S433.
(online at: http://www.journals.uchicago.edu/doi/pdfplus/10.1086/694318)
(Asian hominid fossil record scant, but suggests the presence of regionally different evolutionary lineages of archaic Homo in Pleistocene Asia. Javanese Homo erectus may be 'e southern Denisovans')

Kaifu, Y., F. Aziz & H. Baba (2005)- Hominid mandibular remains from Sangiran: 1952-1986 collection. American J. Physical Anthropology 128, 3, p. 497-519.
(Descriptions of 8 hominid mandibular and associated dental remains found between 1952-1986 from E Pleistocene deposits of Sangiran, C Java. All specimens are surface finds)

Kaifu, Y., H. Baba, T. Sutikna, M.J. Morwood, D. Kubo, E.W. Saptomo, Jatmiko, R. Due Awe & T. Djubiantono (2011)- Craniofacial morphology of *Homo floresiensis*: description, taxonomic affinities, and evolutionary implication. J. Human Evolution 61, p. 644-682.
(Description of LB1/1 Homo floresiensis cranium. Reductive trend in facial skeleton comparable to H. sapiens, but craniometrically different. LB1 most similar to older Homo erectus from Sangiran and Trinil, consistent with hypothesis that H. floresiensis evolved from early Javanese H. erectus with dramatic island dwarfism)

Kaifu, Y., E. Indriati, F. Aziz, I. Kurniawan & H. Baba (2010)- Cranial morphology and variation of the earliest Indonesian hominids. In: C.J. Norton & D.R. Braun (eds.) Asian Paleoanthropology: from Africa to China and beyond, Springer Science, Chapter 11, p. 143-157.
(Previous arguments suggest oldest Indonesian/ Sangiran hominids characterized by cranial robusticity, but hominids highly variable, with both robust and gracile morphotypes. Cranial size, shape and dentognathic morphology of earliest Indonesian hominids comparable to ~1.7 Ma early Homo erectus from E Africa)

Kaifu, Y., R.T. Kono, T. Sutikna, E.W. Saptomo, Jatmiko & R. Due Awe (2015)- Unique dental morphology of *Homo floresiensis* and its evolutionary implications. PLoS ONE 10, 11, e0141614, p. 1-27.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0141614)
(Dental remains of Homo floresiensis both primitive and advanced molar morphologies, a combination unknown in other hominin species. Consistent with alternative hypothesis that H. floresiensis derived from earlier Asian Homo erectus population and experienced size dwarfism in isolated insular setting)

Kapid, R., J. Arif & D.E. Irawan (2016)- A review on paleoenvironment suitability for hominid fossils and other early vertebrate faunas: a case from Pucangan and Kabuh Formations, Central and East Java, Indonesia. ScienceOpen Research 2016, DOI: 10.14293/S2199-1006.1.SOR-LIFE.AH9PUY.v1, p. 1-7.
(online at: www.scienceopen.com/)
(Sangiran, Ngawi and Mojokerto site in C and E Java. Vertebrate remains and hominid fossils mainly accumulated in continental sediments associated with lacustrine and fluvial systems)

Kealy, S., J. Louys & S. OôConnor (2015)- Islands under the sea: a review of early modern human dispersal routes and migration hypotheses through Wallacea. J. Island Coastal Archaeology 11, 3, p. 364-384.
(Review of possible Late Pleistocene human migration routes across Wallacea, the transitional island biogeographic zone between Sundaland (SE Asia) and Sahul (Australia-New Guinea))

Keates, S.G. (2004)- Notes on the Palaeolithic finds from the Walanae Valley, southwest Sulawesi, in the context of the Late Pleistocene of island Southeast Asia. In: S.G. Keates & J. Pasveer (eds.) Quaternary Research in Indonesia, Chapter 7, Modern Quaternary Research in Southeast Asia 18, Balkema, Leiden, p. 95-110.
(Stone artefacts from Walanae valley, SW Sulawesi, may represent earliest human (Homo sapiens) activity in early part of Late Pleistocene (first identified as Cabenge flake industry by Van Heekeren in late 1940's). With review of Late Pleistoce stone tool industries in other parts of Indonesia)

Keates, S.G. & G.J. Bartstra (2001)- Observations on Cabengian and Pacitanian artefacts from island Southeast Asia. Quartar 51/52, p. 9-32.

(online at: http://quartaer.eu/pdfs/2001/2001_01_keates.pdf)
(Paleolithic stone artefact collections from Walanae valley near Cabenge in Sulawesi and from Baksoka valley near Pacitan, S Java, date largely to Late Pleistocene)

Kidder, J.H. & A.C. Durband (2004)- A re-evaluation of the metric diversity within *Homo erectus*. J. Human Evolution 46, p. 299-315.

Kubo, D., R.T. Kono & Y. Kaifu (2013)- Brain size of *Homo floresiensis* and its evolutionary implications. Proc. Royal Society (London), B 280, 20130338, p.
(online at: http://royalsocietypublishing.org/content/royprsb/280/1760/20130338.full.pdf)
(Homo floresiensis from Late Pleistocene of Flores has extremely small endocranial volume (LB1 type specimen ~400cc). Hypotheses discussed: (1) H. floresiensis experienced dramatic brain size reduction from the Homo erectus (~1000 cc) in isolated insular setting; (2) species derived directly from more primitive and smaller-brained form such as Homo habilis (~600 cc) or Australopithecus (~400 cc))

Larick, R. & R.L. Ciochon (2015)- Early hominin biogeography in island Southeast Asia. Evolutionary Anthropology 24, p. 185-213.
(Modern review of hominid distribution in Indonesian region)

Larick, R., R.L. Ciochon & Y. Zaim, Sudijono, Suminto, Y. Rizal & F. Aziz (2000)- Lithostratigraphic context for Kln-1993.05-SNJ, a fossil colobine maxilla from Jokotingkir, Sangiran Dome. Int. J. Primatology 21, 4, p. 731-759.
(New subspecies of colobine monkey described by Jablonski and Tyler (1999) from near Krikilan, Sangiran dome, C Java, unlikely to be from Late Pliocene Lower Lahar volcanic breccia, but not found in situ, and probably from U Sangiran (Pucangan) or lower Bapang (Kabuh) Fms)

Lee, S.H. & D.G. Khorasani (2017)- Spread of hominins in Asia. eLS, p. 1-7.
(Review of migration of hominids in Asia. Earliest hominins in Asia almost as old as first appearance of genus Homo in Africa. Most fossil materials from Asia are without reliable dates)

Lenoble, A., V. Zeitoun, F. Laudet, A. Seveau & T. Doyasa (2008)- Natural processes involved in the formation of Pleistocene bone assemblages in continental South-East Asian caves : the case of the Cave of the monk (Chiang Dao Wildlife Sanctuary, Thailand). In: J.P. Pautreau et al. (eds.) 11th Int. Conf. Eurasea (EurASEAA 2006), Bougon 2006, Chiang Mai, p. 41-50.
(online at: https://hal.inria.fr/halshs-00423519/document)
(Large mammal assemblage typical of Ailuropoda-Stegodon fauna in Cave of the Monk, N Thailand. Fossiliferous layer with gnawed bones resulted from mid-size burrowing animals, probably porcupine)

Lim Tze Tshen (2013)- Quaternary *Elephas* fossils from Peninsular Malaysia: historical overview and new material. Raffles Bull. Zoology 2013, Suppl. 29, p. 139-153.
(online at: https://lkcnhm.nus.edu.sg/nus/pdf/PUBLICATION/..)
(Elephant fossils rare in Peninsular Malaysia. 19 specimens recorded, all isolated dental materials of presumed Late Pleistocene and Holocene age)

Louys, J. (2007)- Ecology and extinction of Southeast Asia's megafauna. Ph.D. Thesis University of New South Wales, Sydney, p. 1-290.
(online at: http://unsworks.unsw.edu.au/fapi/datastream/unsworks:1693/SOURCE02)
(On extinction of large Pleistocene mammal species in SE Asia)

Louys J. (2008)- Quaternary extinctions in Southeast Asia. In: A.M.T. Elewa (ed.) Mass extinction, Springer-Verlag, Heidelberg, p. 159-189.

Louys J. (2011)- Mammal community structure of Sundanese fossil assemblages from the Late Pleistocene, and a discussion on the ecological effects of the Toba eruption. Quaternary Int 258, p. 80-87.

Louys, J. (2016)- The giant rats of Timor. Australasian Science 37, 3, p. 24-26.
(Dog-sized giant rats coexisted with humans for 40,000 years on Timor)

Louys, J., G.J. Price & S. OôConnor (2016)- Direct dating of Pleistocene *Stegodon* from Timor Island, East Nusa Tenggara. PeerJ. 2016, 4, e1788, p. 1-16.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4793331/pdf/peerj-04-1788.pdf)
(U-series dating of stegodon tusk from Pleistocene Ainaro gravels near Atambua, Timor, indicate presence of stegodons in Timor at or before 130 ka, pre-dating earliest evidence of humans on island)

Lyras, G.A., M.D. Dermitzakis, A.A.E. van der Geer, S.B. van der Geer & J. de Vos (2009)- The origin of *Homo floresiensis* and its relation to evolutionary processes under isolation. Anthropological Science 117, 1, p. 33-43.
(online at: https://www.jstage.jst.go.jp/article/ase/117/1/117_080411/_pdf)
(Morphometric analysis of skulls separates H. floresiensis (LB1) from all H. sapiens, while not possible to separate H. floresiensis from H. erectus. Neolithic skulls from Flores within range of modern humans and not related to LB1)

Maringer, J. & T. Verhoeven (1970)- Die Steinartefakte aus der *Stegodon*-Fossilschicht von Mengeruda auf Flores, Indonesien. Anthropos 65, 1-2, p. 229-247.
('The stone artifacts from the Stegodon fossil beds of Mengeruda on Flores, Indonesia'. Pleistocene volcanoclastic fossiliferous beds on Soa Plateau, W Central Flores, contains Stegodon (Hooijer 1957), also Pleistocene tektites and variety of stone tools, similar to 'Sangiran industry' of C Java and 'Cabenge industry' of Sulawesi (now dated at Mata Menge site as ~880 ka: JTvG))

Maringer, J. & T. Verhoeven (1970)- Die Oberflachenfunde aus dem Fossilgebiet von Mengeruda und Olabula auf Flores, Indonesien. Anthropos 65, p. 530-565.

Maringer, J. & T. Verhoeven (1979)- Recent discovery of a Palaeolithic past in Flores, Indonesia, and its contribution to the research of most ancient Southeast Asia. East and West 29, p. 247-263.
(Discovery of Pleistocene mammalian fauna with Stegodon trigonocephalus and human stone tools at Olabula, Flores, by Verhoeven in 1957 were first East of Wallace Line)

Martin, J.E., E. Buffetaut, W. Naksri, K. Lauprasert & J. Claude (2012)- *Gavialis* from the Pleistocene of Thailand and its relevance for drainage connections from India to Java. PLoS ONE 7, 9, e44541, 14p.
(online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0044541)
(Occurrence of crocodilian Gavialis cf. bengawanicus in E Pleistocene of Tha Chang sandpit, Nakhon Ratchasima Province NE Thailand. Associated with Stegodon and other E Pleistocene mammal fauna. Scenario for dispersal of Gavialis from Indo-Pakistan to Indonesia. Dispersal by sea less likely than dispersal through fluvial drainages. (not much on geological setting and age control; G. bengawanicus Dubois also known from Trinil, C Java, associated with Stegodon- Homo erectus fauna; Dubois 1908, Delfino & De Vos, 2010; HvG)

Martin, R.D., A.M. MacLarnon, J.L. Phillips & W.B. Dobyns (2006)- Flores hominid: new species or microcephalic dwarf ? The Anatomical Record, A, 288A, 11, p. 1123-1145.
(online at: http://onlinelibrary.wiley.com/doi/10.1002/ar.a.20389/pdf)
(New hominids 'Homo floresiensis' from Flore, dated at ~18,000 yrs, very small but dentally adult. Commonly interpreted as insular dwarf derived from Homo erectus, but far too small to derive from Homo erectus by normal dwarfing. H. floresiensis most likely microcephalic Homo sapiens with advanced stone tools)

Marwick, B., C. Clarkson, S. O'Connor & S. Collins (2016)- Early modern human lithic technology from Jerimalai, East Timor. J. Human Evolution 101, p. 45-64.
(Jerimalai rock shelter in E Timor with large assemblage of Pleistocene stone artefacts and shell fish hooks dated to 42,000 yrs BP, one of oldest known sites of modern human activity in island SE Asia. Little change in lithic technology over 42,000 year sequence until addition of new types and raw materials in M Holocene.

Assemblage dominated by small chert cores and implements rather than pebble tools and choppers (common in island SE Asia as opposed to mainland SE Asia). Jerimalai assemblage resembles Liang Bua assemblage of Flores, associated with Homo floresiensis; both possibly created by modern humans)

Matsu'ura, S. (1986)- Fluorine and phosphate analysis of fossil bones from the Kabuh formation of Trinil. Bull. National Science Museum, Tokyo, D12, p. 1-9.
(online at: http://ci.nii.ac.jp/naid/110000008540/en)
(Bone samples from lower Kabuh Fm in Trinil area analysed for fluorine and phosphate for comparison with Sangiran other areas. No obvious conclusions?)

Medway, Lord (1972)- The Quaternary mammals of Malesia: a review. In: P. & M. Ashton (eds.) The Quaternary era in Malesia, Trans. 2nd Aberdeen-Hull Symposium Malesian Ecology, University of Hull Dept. Geogr. Misc. Ser. 13, p. 63-98.

Meijaard, E. & C.P. Groves (2006)- The geography of mammals and rivers in mainland Southeast Asia. In: M. Lehman & J.G. Fleagle (eds.) Primate biogeography- progress and prospects, Springer, New York, p. 305-330.
(Late Pliocene- E Pleistocene environmental changes in mainland SE Asia split up many tropical species leading to diversification, maintained during Pleistocene by further glacial periods. During last glacial maximum this may have led to isolation of rainforest-dependent species in several refugia. M Pleistocene catastrophic comet collision around 0.77 Ma, with centre of impact in E Thailand or E Cambodia/S Laos, may have caused widespread extinction in mainland SE Asia in area possibly >1 million km2)

Meijer, H.J.M., T. Sutikna, E.W. Saptomo, R. Due Awe, Jatmiko, S. Wasisto, H.F. James, M.J. Morwood & M.W. Tocheri (2013)- Late Pleistocene-Holocene non-passerine avifauna of Liang Bua (Flores, Indonesia). J. Vertebrate Paleontology 33, 4, p. 877-894.
(Liang Bua cave deposits, Flores, span last 95,000 years, with bird fossils throughout. Late Pleistocene assemblage with 23 taxa. Giant marabou Leptoptilos robustus and vulture Trigonoceps sp. now extinct)

Meijer, H.J.M., L.W. van den Hoek Ostende, G.D. van den Bergh & J. de Vos (2010)- The fellowship of the hobbit: the fauna surrounding *Homo floresiensis*. J. Biogeography 37, 6, p. 995-1006.
(Flores vertebrate fauna low species richness and disharmonic fauna, resulting from isolated position of island. H. floresiensis associated with common pygmy proboscidean Stegodon florensis insularis, giant rats (Papagomys armandvillei, P. theodorverhoeveni, Spelaeomys florensis) and other murids, bats, Komodo dragon (Varanus komodoensis, V. hooijeri), and large number of birds (incl. giant marabou Leptoptilos). Between fossil-bearing localities Ola Bula Fm (~ 900-800 ka) and Liang Bua (~95–0 ka) gap of ~700 kyr)

Mijares, A.S., F. Detroit, P. Piper, R. Grun, P. Bellwood, M. Aubert, G. Champion, N. Cuevas, A. De Leon & E. Dizon (2010)- New evidence for a 67,000-year-old human presence at Callao Cave, Luzon, Philippines. J. Human Evolution 59, 1, p. 123-132.
(Human third metatarsal from Callao Cave in N Luzon dated by U-series ablation as ~67 ka, making it oldest known modern human fossil in Philippines (and SE Asia?). Morphometric analysis indicates gracile structure, close to small-bodied Homo sapiens, but also within ranges of Homo habilis and H. floresiensis)

Mijsberg, W.A. (1932)- Recherches sur les restes humains trouves dans les fouilles de l'abris-sous-roche de Goewa-Lawa a Sampoeng et des sites prehistoriques a Bodjonegoro (Java). In: Hommage du Service Archeologie des Indes Neerlandaises au Premier Congres des Prehistoriens d'Extreme-Orient a Hanoi, Batavia, p. 39-54.
('Investigations on the human remains found in the excavations of the Gua Lawa rock shelter in Sampung and prehistoric sites in Bojonegoro (Java)'. Report on skeletal remains of 'big-teeth' prehistoric people from East Java, reminescent of Papua-Melanesian racial group)

Moigne, A.M., F. Semah & A.M. Semah, A.Bouteaux & R. Due Awe (2004)- Mammalian fossils from two sites of the Sangiran Dome (Central Jawa, Indonesia), in the biostratigraphical framework of the Jawanese Pleistocene. In: L.C. Maul & R.D. Kahlke (eds.) Late Neogene and Quaternary biodiversity and evolution:

Regional developments and interregional correlations, Proc. 18th Int. Senckenberg Conf., Weimar, Terran Nostra, Stuttgart, p. 176-178. *(Extended Abstract)*
(online at: www.senckenberg.de/fis/doc/abstracts/68_Moigne_etal_2.pdf)
(Brief review of Bukuran and Ngebung 2 sites, Sangiran. Ngebung 2 with 'late Trinil HK' mammalian assemblage and dated as beginning of M Pleistocene (~0.9 Ma?))

Moncel, M.H., M. Arzarello, E. Boeda, T. Bonilauri, B. Chevrier, C. Gaillard, H. Forestier, Y. Li, F. Semah & V. Zeitoun (2018)- Assemblages with bifacial tools in Eurasia (second part). What is going on in the East? Data from India, Eastern Asia and Southeast Asia. Comptes Rendus Palevol 17, 1-2, p. 61-76.
(online at: www.sciencedirect.com/science/article/pii/S1631068315002122)
(Review of Pleistocene stone tools in Asia, incl. Indonesia: Baturaja-S Sumatra, Pacitan-Java, Ngebung/ Sangiran-Java (part 1 of series was on stone tools in Europe))

Moncel, M.H., M. Arzarello, E. Boeda, T. Bonilauri, B. Chevrier, C. Gaillard, H. Forestier, Y. Li, F. Semah & V. Zeitoun (2018)- Assemblages with bifacial tools in Eurasia (third part). Considerations on the bifacial phenomenon throughout Eurasia. Comptes Rendus Palevol 17, 1-2, p. 77-97.
(online at: www.sciencedirect.com/science/article/pii/S163106831630032X)
(Bifacial stone tool technology believed to become widespread from 800-700 ka onwards, probably reaching Levant from Africa before moving toward Asia, then Europe. However, reality may be more complex. In Indonesia lithic pieces compatible with Acheulean traditions found without stratigraphic context in S Sumatra and associated with Homo erectus fossils at base of Kabuh Fm in Sangiran)

Moore, M.W. T. Sutikna, Jatmiko, M.J. Morwood & A. Brumm (2009)- Continuities in stone flaking technology at Liang Bua, Flores, Indonesia. J. Human Evolution 57, 5, p. 503-526.
(At Liang Bua, Flores, stratified unchanging artifact sequence spanning 95 kyr, with minor shift to unifacial flaking after 11 ka. Pleistocene pattern associated with Homo floresiensis skeletal remains. Holocene changes correlate with appearance of Homo sapiens)

Morley, M.W. (2017)- The geoarchaeology of hominin dispersals to and from tropical Southeast Asia: a review and prognosis. J. Archaeological Science 77, p. 78-93.
(Review of geoarchaeology of Late Pleistocene modern human dispersals into and out of SE Asia, incl. Indonesian localities Punung/ Wajak (Java) and Liang Bua (Flores))

Morwood, M.J., F. Aziz, G.D. van den Bergh, P.Y. Sondaar & J. De Vos (1997)- Stone artefacts from the 1994 excavation at Mata Menge, West Central Flores, Indonesia. Australian Archaeology 44, p. 26-34.
(online at: https://www.library.uq.edu.au/ojs/index.php/aa/article/download/996/994)
(1994 excavation in fluvial Ola Bula Fm at Mata Menge near Bajawa, C Flores, yielded M Pleistocene stone tool pieces (basalt and chert flakes) and faunal remains (large Stegodon, crocodile, giant rat). Likely Matuyama- Brunhes boundary (and tektites from same site reported by Maringer and Verhoeven 1970 (but below main fossil layers?))

Morwood, M.J. & W.L. Jungers (2009)- Conclusions: implications of the Liang Bua excavations for hominin evolution and biogeography. J. Human Evolution 57, p. 640-648.
(Liang Bua excavations on Flores stratified sequence of stone artifacts and faunal remains spanning ~95- 17 ka, and includes skeletal remains of Homo sapiens in Holocene and Homo floresiensis in Pleistocene. Small H. floresiensis not australopithecine and not dwarfing of ancestral H. erectus population, but probably late representative of small-bodied hominid lineage that exited Africa before emergence of Homo erectus)

Movius, H.L. (1943)- The stone age of Burma. In: Research on early man in Burma, Trans. American Philosphical Soc., N.S., 32, 3, p. 341-393.
(Paleolithic stone tools from 'Anyathian' M-U Pleistocene terraces of Irrawaddy River in Upper Myanmar (hand adzes, choppers, scrapers). Early Anyathian similarities with Pacitanian of S Java)

Mulvaney, D.J. (1970)- The Patjitanian industry: some observations. Mankind (Australian J. Anthropology) 7, 3, p. 184-187.
(Pacitanian stone tools from Java S Mountains contain both hand-axes and flake tools and may not be as old as previously suggested)

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(online at: http://berkalaarkeologi.kemdikbud.go.id/index.php/berkalaarkeologi/article/view/96/142)
('Giant primate of Java: a new Gigantopithecus specimen from Semedo'.Two enigmatic mandible speciments found in 2014 at Semedo, SE of Tegal, C Java. Morphologically similar, but twice size of common primate's jaw. Semedo specimens close to Gigantopithecus blacki)

Obendorf, P.J., C.E. Oxnard & B.J. Kefford (2008)- Are the small human-like fossils found on Flores human endemic cretins? Proc. Royal Society (London), B, 275, p. 1287-1296.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2602669/pdf/rspb20071488.pdf)
(Hominid fossils from Liang Bua, Flores, Indonesia, including nearly complete skeleton dated to 18 ka and assigned to new species are probably ME endemic cretins, part of an inland population of Homo sapiens)

OôConnell, C.A. & J.M. DeSilva (2013)- Mojokerto revisited: evidence for an intermediate pattern of brain growth in *Homo erectus*. J. Human Evolution 65, p.156-161.
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OôConnell, J.F. & J. Allen (2004)- Dating the colonization of Sahul (Pleistocene Australia- New Guinea): a review of recent research. J. Archaeological Science 31, p. 835-853.
(Date for arrival of human colonization of Sahul generally assumed to be at ~40,000 BP or 60,000 BP. Postulated arrival dates before~42-45 ka not well-supported by data)

OôConnor, S., J. Louys, S. Kealy & S.C. Samper Carro (2017)- Hominin dispersal and settlement East of Huxleyôs Line; the role of sea level changes, island size, and subsistence behavior. Current Anthropology 58, Suppl. 17, p. S567-582.
(online at: https://www.journals.uchicago.edu/doi/pdfplus/10.1086/694252)
(Pleistocene pre-sapiens hominins opportunistic omnivores, probably constrained to environments with plentiful fresh water animals and plants; therefore rel. difficult to migrate across island archipelago. Homo sapiens probably able to subsist on marine resources and more easily moved through islands E of Huxley Line)

OôConnor, S., M. Spriggs & P. Veth (2002)- Excavation at Lene Hara Cave establishes occupation in East Timor at least 30,000-35,000 years ago. Antiquity 76, p. 45-50.
(First discovery of Late Pleistocene flake-based stone tools from Timor, in Lene Hara cave, Timor Leste (one of rel. many Late Pleistocene occurrences of small 'flake tool industries' in caves and rock shelters across E Indonesia region)

Olsen, J.W. & R.L. Ciochon (1990)- A review of evidence for postulated Middle Pleistocene occupations in Viet Nam. J. Human Evolution 19, 8, p. 761-788.
(Several archeological localities across Vietnam originally interpreted as of M Pleistocene age, but age control of many localities unreliable)

Oppenheimer, S. (2009)- The great arc of dispersal of modern humans: Africa to Australia. Quaternary Int. 202, p. 2-13.
(Late Pleistocene dispersal of anatomically modern humans out of Africa. Routes obeyed limitations placed by drinking water and climate-permissive corridors. First spread N in Eemian interglacial (~125 ka). Reached Indonesian region by 75-81 ka. Crossed Wallace Line to reach Australia at least by 48 ka (possibly 60 ka)

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(online at: http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0013018&type=printable)
(LB1and LB6 skulls of 'Homo floriensis' most likely, endemic cretins from population of unaffected Homo sapiens. Consistent with recent hypothyroid endemic cretinism throughout Indonesia, including nearby Bali)

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(Fifteen Late Pleistocene small mammal species from cave in Ordovician limestone hill in S Thailand)

Pickford, M., H. Nakaya, Y. Kunimatsu, H. Saegusa, A. Fukuchi & B. Ratanasthien (2004)- Age and taxonomic status of the Chiang Muan (Thailand) hominoids. Comptes Rendus Palevol 3, 1, p. 65-75.
(Age of Lufengpithecus chiangmuanensis Chaimanee 2003 originally estimated as ~13-13.5 Ma, but previous studies suggest age closer to ~12-11 Ma. L. chiangmuanensis synonym of L. keiyuanensis Wu)

Polanski, J.M., H.E. Marsh & S.D. Maddux (2016)- Dental size reduction in Indonesian *Homo erectus*: implications for the PU-198 premolar and the appearance of *Homo sapiens* on Java. J. Human Evolution 90, p. 49-54.
(Recent recovery of hominin maxillary third premolar, PU-198 in collections from Punung Cave (E Java) was used to suggest Homo sapiens appeared on Java between 143-115, ka. However, PU-198 overlaps in premolar sizes between H. erectus and H. sapiens, and indicate reduction in premolar size between early and late Javan H. erectus. Question appearance of H. sapiens on Java between 143-115 ka)

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(online at: http://jurnalarkeologi.kemdikbud.go.id/index.php/kalpataru/article/view/47)
(The cultural development during Late Pleistocene-Early Holocene in the Indonesian Archipelago'. Review of Late Pleistocene- Early Holocene human culture in various parts of Indonesia)

Purnomo, A. (2008)- The sedimentation of Lake Guyang Warak (Punung-East Java, Indonesia). Annali dellôUniversita degli Studi di Ferrara Museologia Scient. Naturalistica. Spec. Vol. 2008, p. 151-154.
(Lake Guyang Warak, Punung, NW of Pacitan in S Mountains of C Java, close to famous Paleolithic Site Song Terus Cave. 6m long core shows almost same environment from at least 2000 BP)

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(DNA genomic sequence of Aboriginal Australians shows they are descendants of early human dispersal into E Asia, ~62,000- 75,000 yrs ago, separate from dispersal of ancestors of modern Asians 25,000- 38,000 yrs ago)

Reich, D., N. Patterson, M. Kircher, F. Delfin, M.R. Nandineni, I. Pugach, A.M. Ko, Y.C. Ko et al. (2011)- Denisova admixture and the first modern human dispersals into Southeast Asia and Oceania. American J. Human Genetics 89, 4, p. 516-528.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3188841/pdf/main.pdf)
(Ancestors of New Guineans, Aboriginal Australians, Near Oceanians, Polynesians, Fijians, E Indonesians, and Mamanwa ('negrito' group from Philippines) inherited part of ancestry from Denisovans, an archaic hominin group from Siberia. However, mainland E Asians, W Indonesians, Jehai (negrito group from Malaysia), and Onge (negrito group from Andaman Islands) have not)

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(Niah Caves in Sarawak home to oldest anatomically modern 'Deep Skull', now confidently dated as ~37.5 ka. First evidence for associated human activity at caves site goes back to ~50 ka)

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(At onset of Quaternary Homo erectus spread across Old World from Africa. Populations persisted in Far East until late in M Pleistocene, while H. erectus disappeared relatively early in West. Episode of hominid speciation in mid-Quaternary gave rise to anatomically more modern hominids called Homo heidelbergensis. Relationships of H. heidelbergensis to Neanderthals and recent humans still need clarification)

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(online at: https://journals.lib.washington.edu/index.php/BIPPA/article/viewFile/11800/10428)

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('Contribution to comparison of nuclear methods (230Th/234U, ESR and 40Ar/39Ar) to the dating of Pleistocene fossiliferous beds in the Sangiran dome, Java'. Proposed chronology for Sangiran dome: (1) volcanic breccia deposited between 2.05 ± 0.08 and 1.56 ± 0.05 Ma, followed by Pucangan Fm; (2) Grenzbank in upper limit of Jaramillo period at 0.9 Ma; (3) rapid sedimentation with archeological layer with some bones which supposedly burnt at ~0.8-0.9 Ma, before Brunhes/Matuyama magnetic reversal; (4) Notopuro mud-flow unit deposited at 150 ± 10 ka (incl. 0.8 Ma of tuff overlying Ngebung H. erectus occupation site))

Santa Luca, A.P. (1980)- The Ngandong fossil hominids: a comparative study of a Far eastern *Homo erectus* group. Yale University Publ. in Anthropology 78, New Haven, p. 1-175.
(Morphological study of Ngandong hominid skulls from Solo River 20m terrace at Ngandong, originally described as Homo soloensis Oppenoorth 1932. Here interpreted as advanced forms of Homo erectus ('Homo erectus s.l.', not H. erectus s.s.') (conclusion followed by many subsequent researchers, but validity questioned in older (Dubois 1937, Von Koenigswald 1956) and more recent studies, e.g., Zaitoun et al. 2010?, M. Westaway et al. 2015)

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(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1986/5083...)
(Review of hominid material from Pleistocene of Java and latest Pliocene- Pleistocene migration routes of hominids into Indonesian region from Asia. Migrations into Java probably aided by Pleistocene sealevel lowstands and exposed Sunda Shelf. Migrations into East Indonesia and Philippines probably not until Late Pleistocene)

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(online at: https://scholarspace.manoa.hawaii.edu/bitstream/10125/16759/1/AP-v9n1-96-110.pdf)
('The Paleolithic of East Cambodia'. Review of crude pebble-culture stone tools in terrace deposits along E bank of Mekong River, over distance of 200km (some made of silicified wood). At Chhep in conglomerates of oldest terrace deposits (40-45m), associated with tektites (tools below tektites; e.g. Sorensen 2001))

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Schwartz, J. (2016)- Beyond *Homo erectus*: Sangiran is key to deciphering the Asian human fossil record and re-evaluating *Homo*. In: F. Ribot Trafi (ed.) Homenaje al Dr. Jose Gibert Clols, una vida dedicada a la ciencia y al conocimiento de los primeros europeos. Publ. Diputacion de Granada, Granada, p. 93-110.
(Homo erectus widespread and highly variable species from which later hominids emerged. Review of relevant specimens from Sangiran, other Javanese sites and Zhoukoudian Lower Cave (China) shows concept 'erectus' masks evidence of taxic diversity in Asian hominid fossil record and raises questions about non-Asian specimens belonging to single species)

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('About the first human settlements in the South Pacific'. First arrivals of Homo sapiens in Australia >40ka, possibly 50-60 ka. Debate whether these anatomically modern H. sapiens came from recent 'out of Africa' migration (Out-of-Africa hypothesis) or evolved locally from last Indonesian H. erectus (multiregional hypothesis). Morphometric differences between most recent Indonesian H. erectus and 'robust' Australian fossil H. sapiens from Kow Swamp and Cohuna clearly distinct, questioning local direct evolution)

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(online at: http://hopsea.mnhn.fr/pc/brochures/2007HOPseaFI.pdf)
(Brief review of Pleistocene climate trends on Java. Between ~1 and 0.2 Ma climate rel. cooler and drier and yielding majority of hominid fossils)

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(Earliest Paleolithic implements in Java Island >1 Ma old, postdating oldest Homo erectus fossils. Acheulean-like tools in early M Pleistocene ('Sangiran flakes; 1.0-0.8 Ma), flake tools assemblages in late M/early U Pleistocene sites and development of cave occupations at end Pleistocene and E Holocene. Environment, mostly forested in E Pleistocene, changing climate during M Pleistocene, then at start of Late Pleistocene. Tectonic and volcanic activities affected local climate, paleogeography and floras. Associated vertebrate faunas reflect periods of contact with mainland (increased biodiversity) and periods of isolation (endemism))

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(The stratigraphic position of Ngebung 2 excavation site, Sangiran Dome)

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(online at: http://unesdoc.unesco.org/images/0022/002291/229174e.pdf)
(Review of 'journey' of Homo erectus and Homo sapiens across Indonesian archipelago since 1.5 Ma)

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Setiyabudi E (2009)- An early Pleistocene giant tortoise (Reptilia; Testudines; Testudinidae) from the Bumiayu area, Central Java, Indonesia. J. Fossil Research 42, 1, p. 1-11.
(Well-preserved ~1.75m long extinct testidinid tortoise from E Pleistocene lower Kali Glagah Fm, N of Bumiayu, originally collected by Van der Maarel 1932 and part of Java Satir Fauna of ~1.5Ma. Here identified as Megalochelys cf. sivalensis. Giant tortoise also known from Myanmar, Flores, etc.)

Setiyabudi, E., B. Prasthisto, I. Kurniawan & T. Jatmiko (2018)- The Early Holocene vertebrate faunas from Seropan Cave, Gunung Sewu, Yogyakarta, Indonesia. Indonesian J. Geoscience 5, 1, p. 33-45.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/404/253)

(Open woodland mammal fauna from Seropan Cave in Gunung Sewu karst area, Wonosari, with Cervus, Sus verrucosus, Bubalus, Panthera cf. pardus, etc.. C14 radiocarbon age dating gave date of 9,450 ± 400 yrs. BP)

Setiyabudi, E., A. Takahashi & Y. Kaifu (2016)- First certain fossil record of *Orlitia borneensis* (Testudines: Geoemydidae) from the Pleistocene of Central Java, Indonesia. Current Herpetology 35, 2, p. 75-82.
(Turtle fossil identified as Orlitia borneensis from Solo river bottom in Sambungmacan, eastern C Java, presumably eroded from M Pleistocene fluvial deposits one river bank. O. borneensis had wider distribution in past, but Java population would have become extinct by end of M Pleistocene)

Shutler, R. & F. Broches (1986)- The paleoanthropology of Pleistocene island Southeast Asia: a review. In: N. Thiramongkol (ed.) Proc. Workshop on Economic geology, tectonics, sedimentary processes and environment of the Quaternary in Southeast Asia, Haid Yai, Thailand 1986, IGCP 218/ Chulalongkorn University, Bangkok, p. 185-191.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1986/5083...)
(Brief review of Pleistocene Java mammal assemblages and issues regarding dating and interpretation)

Simanjuntak, T. (1995)- Mesolithique de lôIndonesie : une heterogeneite culturelle. LôAnthropologie 99, 4, p. 626-636.
('The Mesolithic of Indonesia: a cultural heterogeneity')

Simanjuntak T. (2001)- New insights on the tools of *Pithecanthropus*. In: T. Simanjuntak et al. (eds.) Sangiran: man, culture and environment in Pleistocene times, Yayasan Obor Indonesia, Jakarta, p. 154-170.

Simanjuntak, T., F. Semah & A.M. Semah (2014)- Tracking evidence for modern human behavior in Paleolithic Indonesia. In: Y. Kaifu et al. (eds.) Emergence and diversity of modern human behavior in Paleolithic Asia, Peopling of the Americas Publications, Texas A&M University Press, p. 158-170.
(Homo sapiens may have colonized Indonesian Archipelago in early U Pleistocene. Most reliable evidence only since ~45 ka (Paleolithic sites with artifacts in Gunung Sewu, S Java))

Siswanto & S. Noerwidi (2014)- Fosil Proboscidea fossils dai situs Semedo: hubungannya dengan biostratigrafi dan kehadiran manusia di Jawa. Jurnal Berkala Arkeologi 34, 2, p. 115-130.
(online at: http://balaiarkeologiyogya.com/berkalaarkeologi/article/view/20/37)
('Proboscidea fossils from Semedo site: its correlation with biostratigraphy and human arrival in Java'. Semedo site in Tegal district of C Java rich in vertebrate fossils, with high percentage and several species of Proboscidea (elephantoids): Sinomastodon bumiayuensis, Stegodon trigonocephalus, Stegodon 'pygmy' semedoensis, Stegodon hypsilophus, Elephas (Archidiskodon) planifrons and Elephas hysudrindicus)

Soejono, R.P. (1969)- The history of prehistoric research in Indonesia to 1950. Asian Perspectives 12, p. 69-91.
(online at: http://hl-128-171-57-22.library.manoa.hawaii.edu/bitstream/10125/16796/1/AP-v12n1-69-91.pdf)
(Review of archeological work in the Indonesian region before 1950, incl. Paleolithic-Neolithic stone tools, bronze drums and other object, megalithic remains, fossilized human remains)

Soejono, R.P. (1982)- New data on the Palaeolithic industry in Indonesia. In: M.A. de Lumley (ed.) Colloque Int. CNRS Lô*Homo erectus* et la place de lôHomme de Tautavel parmi les hominides fossiles, Nice p. 578-592.

Sorensen, P. (2001)- A reconsideration of the chronology of the Early Palaeolithic Lannathaian culture of North Thailand. Bull. Indo-Pacific Prehistory Assoc. (IPPA) 21, p. 138-141.
(online at: https://journals.lib.washington.edu/index.php/BIPPA/article/view/11773/10402)
(E Paleolithic sites with Lannathaian flaked pebble tools of Lampang Basin, N Thailand, probably 1.2- 0.8 Ma: in highest (oldest) Terrace 1 deposits, overlain by basalts older than Matuyama- Brunhes magnetic boundary (K-Ar dating of basalts unsuccessful))

Storm, P. (1992)- Two microliths from Javanese Wadjak Man. J. Anthropological Soc. Nippon 100, 2, p. 191-203.

(online at: https://www.jstage.jst.go.jp/article/ase1911/100/2/100_2_191/_pdf)
(Two hominid stone tools made from limestone, from rock shelter known as Wajak site on mountain slope in S Java, S of Mt Willis near village of Wajak, site of human skull first found by Van Rietschoten in 1888)

Storm, P. (1994)- De morfologie van *Homo modjokertensis*. Cranium 11, 2, p. 97-102.
(online at: http://natuurtijdschriften.nl/download?type=document&docid=523347)
(Mojokerto skull from E Java, described by Von Koenigswald (1936) as Pithecanthropus modjokertensis, is juvenile skull, but not possible to determine if early (Homo erectus erectus) or late (Homo erectus soloensis) Javanese form (Dubois 1940 considered this to be rel. young Homo wadjakensis= H. soloensis))

Suminto, M.J. Morwood, I. Kurniawan, F. Aziz, G.D. van den Bergh & D.R. Hobbs (2009)- Geology and fossil sites of the Soa Basin, Flores, Indonesia. In: F. Aziz et al. (eds.) Geology, palaeontology and archaeology of the Pleistocene Soa Basin, Central Flores, Indonesia, Chapter 2, Pusat Survei Geologi, Bandung, Spec. Publ. 36, p. 19-40.
(Flores classic Mata Menge site age: tuff sealing top of fossil layer (with Stegodon florensis and in-situ stone artefacts) with fission track age of 800 ± 70 Ma, while pink tuffaceous silt immediately below main fossil deposit dated as 880 + 70 ka. Tangi Talo site with pygmy Stegodon sondaari and giant tortoise and FT age 900 ± 70 ka. Around 680 ka lake increased in size one leading to deposition of thin-bedded freshwater limestones of Upper limestone. Tektite at surface of Dozu Dhalu site with in-situ artefact and Stegodon florensis)

Suraprasit, K., Y. Chaimanee, H. Bocherens, O. Chavasseau & J.J. Jaeger (2013)- Systematics and phylogeny of middle Miocene Cervidae (Mammalia) from Mae Moh Basin (Thailand) and a paleoenvironmental estimate using enamel isotopy of sympatric herbivore species. J. Vertebrate Paleontology 34, 1, p. 179-194.
(New species of primitive deer Lagomeryx and Stephanocemas from late M Miocene (13.4-13.2 Ma) coal layers of Mae Moh Basin, N Thailand. Paleoenvironmental studies of Mae Moh mammalian taxa (cervid, bovid, suid, rhinoceros and proboscidean indicate range of habitats from woodlands to grasslands in a C3-plant-dominated environment. Isotopic samples support herbivores lived in a low-seasonal climate)

Suraprasit, K., Y. Chaimanee, T. Martin & J.J. Jaeger (2011)- First castorid (Mammalia, Rodentia) from the Middle Miocene of Southeast Asia. Naturwissenschaften 98, 4, p. 315-328
(late M Miocene age Steneofiber fossils from coal mines in Mae Moh and Chiang Muan, N Thailand)

Suraprasit, K., Y. Chaimanee, O. Chavasseau & J.J. Jaeger (2015)-Middle Miocene bovids from Mae Moh Basin, Northern Thailand: The first record of the genus Eotragus from Southeast Asia. Acta Palaeontologica Polonica 60, 1, p. 67-78.
(online at: https://www.app.pan.pl/archive/published/app60/app20120061.pdf)
(Bovid fossils from late M Miocene (~13.3 Ma) of Mae Moh Basin of NW Thailand, assigned to new species Eotragus lampangensis n.sp.. First report of Eotragus from SE Asia. Foraged mainly between grassland and forest)

Suraprasit, K., J.J. Jaeger, Y. Chaimanee, O. Chavasseau, C. Yamee, P. Tian & S. Panha (2016)- The Middle Pleistocene vertebrate fauna from Khok Sung (Nakhon Ratchasima, Thailand): biochronological and paleobiogeographical implications. ZooKeys 613, p. 1ï 157.
(online at: http://zookeys.pensoft.net/articles.php?id=8309)
(Rich late M Pleistocene vertebrate fauna with 15 mammal and 10 reptile species in fluvial terrace deposits of Khok Sung, NE Thailand. No Ailuropoda, but with Gavialis bengawanicus. Fauna comparable to three other late M Pleistocene faunas, one with age >169 ka. In M Pleistocene of SE Asia two faunal associations: Java and mainland SE Asia. Thailand pathway for Sino-Malayan migration event from S China to Java)

Sutikna, T., M.W. Tocheri, M.J. Morwood, E.W.Saptomo, Jatmiko, R.D. Awe, Sri Wasisto, K.E. Westaway, M. Aubert et al. (2016)- Revised stratigraphy and chronology for *Homo floresiensis* at Liang Bua in Indonesia. Nature 532, 7599, p. 366-369.

(Skeletal remains of H. floresiensis and deposits containing them dated as 100- 60 ka; stone artefacts range from ~190-50 ka. Not clear if H. floresiensis survived after 50 ka and potentially encountered modern humans on Flores or other hominins dispersing through SE Asia)

Tattersall, I. & J.H. Schwartz (2009)- Evolution of the genus *Homo*. Annual Review Earth Planetary Sci. 37, p. 67-92.
(General review of hominid evolution in last ~2 Myrs. Heterogeneity among 'early African Homo erectus' and no clear link to Asian Homo erectus group. Pithecanthropus (now Homo) erectus now reckoned to be ~0.7- 1.5 Myr old. First truly cosmopolitan Homo is H. heidelbergensis, known from Africa, Europe and China 600 kyr ago. Homo sapiens originated in Africa)

Thein, Z.M.M., T. Htike, A.N. Soe, C. Sein, M. Maung & M. Takai (2017)-. A review of the investigation of primate fossils in Myanmar. In: A.J. Barber et al. (eds.) Myanmar: geology, resources and tectonics, Geol. Soc., London, Memoir 48, Chapter 9, p. 185-206.
(Fossil primates in Late Eocene Pondaung Fm in C Myanmar. Two large-bodied primates, Pondaungia cotteri and Amphipithecus mogaungensis. Some authorities believed they are primitive anthropoids, others regarded them as adapiforms or non-primate)

Thorne, A. & M.H. Wolpoff (1981)- Regional continuity in Australasian Pleistocene hominid evolution. American J. Physical Anthropology 55, 3, p. 337-349.
(Study of Sangiran 17 Homo erectus skull, interpreted to show similarities with Late Pleistocene Australian hominid)

Tiauzon, A. (2011)- Lithic technology in Song Terus during the late Middle Pleistocene and the early Upper Pleistocene. M.Sc. Thesis, Museum Nat. Histoire Naturelle, Paris, p. 1-96.
(online at: http://hopsea.mnhn.fr/pc/thesis/M2%20Archie_TIAUZON.pdf)

Tougard, C. (1998)- Les faunes de grands mammiferes du Pleistocene moyen terminal de Thailande dans leur cadre phylogenetique, paleoecologique et biochronologique. Doct. Thesis Montpellier, p. 1-170. *(Unpublished)*
(The large mammal faunas of late Middle Pleistocene from Thailand in a phylogenetic, paleocological and biochronological framework'. Late M Pleistocene (~170 ka) large mammal fauna with giant panda, Ailuropoda Hyena, Crocuta, Orang-utang, Pongo pygmaeus Sus barbatus, etc.)

Tougard, C., Y. Chaimanee, V. Suteethorn, S. Triamwichanon & J.J. Jaeger (1996)- Extension of the geographic distribution of the giant panda (Ailuropoda) and search for the resons for its progressive disappearance in Southeast Asia during the latest Middle Pleistocene. Comptes Rendus Academie Sciences, Paris, Ser. IIA, 323, p. 973-979.
(Giant panda in latest M Pleistocene of N Thailand. Progressively disappears in SE Asia related to increase in temperature and rainfall)

Turvey, S.T., J.J. Crees, J. Hansford, T.E. Jeffree, N. Crumpton, I. Kurniawan, E. Setiyabudi et al. (2017)- Quaternary vertebrate faunas from Sumba, Indonesia: implications for Wallacean biogeography and evolution. Proc. Royal Society (London), B, 284, 20171278, p. 1-10.
(online at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5577490/pdf/rspb20171278.pdf)
(New vertebrate fossil deposits on Sumba. Pleistocene deposit at Lewapaku in interior highlands may be close to 1 Ma old, with small Stegodon sumbaensis Sartono, tooth of Varanus komodoensis and fragments of giant murids. Holocene cave deposits at Mahaniwa (~2000-3500 BP) with large rats and extinct frugivorous Varanus hooijeri. Sumba Quaternary vertebrate fauna comparable fauna of Flores)

Tyler, D.E., N. Jablonski & S. Sartono (1995)- Earliest known monkey fossil from the Indonesian Archipelago: an announcement. In: J.R.F. Bower & S. Sartono (eds.) Palaeo-anthropology: evolution and ecology of Homo erectus, Pithecanthropus Centennial Foundation, Leiden University, p. 213-216.
(Monkey fossil from Sangiran. See also Jablonski & Tyler1999 and Larick et al. 2000: not as old as assumed?)

Tyler, D.E., G.S. Krantz & S. Sartono (1995)- The taxonomic status of the '*Meganthropus*' cranial (Sangiran 31) and the '*Meganthropus*' occipital fragment III. In: In: J.R.F. Bower & S. Sartono (eds.) Palaeo-anthropology: evolution and ecology of *Homo erectus*, Pithecanthropus Centennial Foundation, Leiden, 1, p. 189-202.

Van Den Bergh, G.D., I. Kurniawan, M.J. Morwood, C.J. Lentfer, Suyono, R. Setiawan & F. Aziz (2009)- Environmental reconstruction of the Middle Pleistocene archaeological/ palaeontological site Mata Menge, Central Flores, Indonesia. In: F. Aziz et al. (eds.) Geology, palaeontology and archaeology of the Pleistocene Soa Basin, Central Flores, Indonesia, Chapter 4, Pusat Survei Geologi, Bandung, Spec. Publ. 36, p. 59-94.
(M Pleistocene paleontological- archeological Mata Menge site in Soa basin represents lake shore deposits, aged ~0.80- 0.88 Ma. Common Stegodon florensis bones from aged animals that probably died natural death. Despite abundance of stone artefacts in same layers no evidence for butchering. FT age of overlying white tuff 0.75 ± 0.07 Ma (Morwood et al. 1998). Fossils all in 0.5- 1.3m thick 'Unit B'; overlying Unit C tuffaceous siltstone and sand unfossiliferous)

Van der Geer, A.A.E., G.D. van den Bergh, G.A. Lyras, U.W. Prasetyo, R. Awe Due, E. Setiyabudi & H. Drinia (2016)- The effect of area and isolation on insular dwarf proboscideans. J. Biogeography 43, 8, p. 1656-1666.

Van Heekeren, H.R. (1958)- The bronze-iron age of Indonesia. Verhandelingen Kon. Inst. Taal Land Volkenkunde 22, p. 1-158.
(online at: www.oxis.org/books/verhandelingen/heekeren-1958.pdf)
(Review of numerous archeological objects from 'Bronze-Iron Age' period, which follows Neolithic in Indonesia)

Van Heekeren, H.R. (1972)- The stone age of Indonesia, 2nd Ed.. Verhandelingen Kon. Inst. Taal Land Volkenkunde 61, The Hague, p. 1-247.
(online at: http://booksandjournals.brillonline.com/content/books/9789004286917)

Van Stein Callenfels, P.V. (1936)- L'industrie osseuse de Ngandong. L'Anthropologie 46, p. 359-362.
('The bone tools industry of Ngandong', C Java)

Van Weers, D.J. (1985)- *Hystrix gigantea*, a new fossil porcupine species from Java (Rodentia: Hystricidae). Senckenbergiana Lethaea 66, p. 111-119.
(Fossil porcupine molars from Sangiran (C Java), collected by Von Koenigswald. Three assigned to new species (Hystrix gigantea n. sp.), one may belong to Hystrix brachyura Linnaeus)

Van Weers, D.J. (1992)- *Hystrix vanbreei* n. sp., a new fossil porcupine from the Pleistocene of Java, with notes on the extant species of the Indonesian Archipelago. Senckenbergiana Lethaea 72, p. 189-197.
(Isolated porcupine teeth and two mandible fragments collected by Van Koenigswald from M Pleistocene of Sangiran, C Java, represent new species Hystrix vanbreei. Also present at Trinil)

Van Weers, D.J. (2003)- The porcupine *Hystrix (Acanthion) brachyura punungensis* subsp. nov. from Late Pleistocene fissure deposits near Punung, Java. Scripta Geol. 126, p. 217-225.
(online at: http://repository.naturalis.nl/document/46244)
(Cheek teeth and mandibular fragment of porcupines from Late Pleistocene fissure deposits near Punung considered new subspecies, Hystrix brachyura punungensis subsp. nov. M Pleistocene specimens allocated to Hystrix brachyura subsp.; those from the Holocene to Hystrix javanica)

Verhoeven, T. (1953)- Eine Mikrolithenkultur in Mittel- und West-Flores. Anthropos 48, p. 597-612.
(First paper on Pleistocene hominid artifacts from Flores (mainly surface scatters); see also Bednarik 2000)

Verhoeven, T. (1958)- Proto-Negrito in den Grotten auf Flores (Indonesie). Anthropos 53, 1-2, p. 229-232.
('Proto-Negrito in the caves of Flores'. Late Pleistocene or E Holocene hominid remains)

Verhoeven, T. (1958)- Pleistozane Funde in Flores. Anthropos 53, p. 264-265.

(First report of E Pleistocene Stegodon fossils associated with hominid stone tools in Flores)

Volmer, R., C. Hertler & A. van der Geer (2015)- Niche overlap and competition potential among tigers (*Panthera tigris*), sabertoothed cats (*Homotherium ultimum, Hemimachairodus zwierzyckii*) and Merriamȏs Dog (*Megacyon merriami*) in the Pleistocene of Java. Palaeogeogr. Palaeoclim. Palaeoecology 441, 4, p. 901-911.
(M Pleistocene site of Sangiran where tigers co-occurred with machairodonts (Hemimachairodus zwierzyckii and Homotherium ultimum) and large Merriam's Dog (Megacyon merriami). Tigers did not increase body mass before Ngandong faunal level)

Von Koenigswald, G.H.R. (1934)- Die Spezialisation des lncisivengebisses bei den javanischen Hippopotamidae. Proc. Kon. Nederl. Akademie Wetenschappen, Amsterdam, 37, 9, p. 653-659.
(online at: www.dwc.knaw.nl/DL/publications/PU00016621.pdf)
('The specialization of the incisors of Javanese Hippopotamidae'. Several species of Pleistoceen hippopotamids with reduced incisor teeth)

Von Koenigswald, G.H.R. (1952)- Evidence of a prehistoric Australo-melanesoid population in Malaya and Indonesia. Southwestern J. of Anthropology 8, 1, p. 92-96.
(Comment on Hooijer (1950) paper of same title, who suggested presence of big-teeth people resembling Australian aboriginals and Melanesians may once lived in Malaya-Indonesian region. vK disputes this)

Wang, W., C.J. Bae, S. Huang, X. Huang, F. Tian, J. Mo, Z. Huang, C. Huang, S. Xief & D. Li (2014)- Middle Pleistocene bifaces from Fengshudao (Bose Basin, Guangxi, China). J. Human Evolution 69, p. 110-122.
(Paleolithic handaxes dated at 803 ka based on association of Australasian tektites. Tektites all from between mottled sandy red clay in upper Terrace 4 at 185.95-187.06m asl. Tektites fresh, with sharp edges do not look redeposited (but in-situ nature of tektites questioned by Langbroek 2015))

Wang, W. & C.J. Bae (2015)- How old are the Bose (Baise) Basin (Guangxi, southern China) bifaces? The Australasian tektites question revisited. J. Human Evolution 80, p. 171-174.
(Disagree with Langbroek (2015) comments on Wang et al. (2014). The 275 tektites from stone artifact-bearing laterite of upper Terrace 4 show no signs of abrasion and are in-situ, while tektites from younger gravel bed in T3 do show rounding)

Wang, W., S.J. Lycett, N. von Cramon-Taubadel, J.J.H. Jin & C.J. Bae (2012)- Comparison of handaxes from Bose Basin (China) and the Western Acheulean indicates convergence of form, not cognitive differences. PlosOne 7, 4, e35804, p. 1-7.
(In Bose Basin stone artefacts, including handaxes, limited to middle and upper units of 4th terrace, associated with tektites dated by 40AR/39AR to 803 ± 3 ka old and also limited to 4th terrace. Rel. relatively high levels of shape variability in Bose handaxes)

Wang, W., J.Y. Mo & Z.T. Huang (2008)- Recent discovery of handaxes associated with tektites in the Nanbanshan locality of the Damei site, Bose basin, Guangxi, South China. Chinese Science Bull. 53, 6, p. 878-883.
(176 stone artifacts in laterized sediments of top of Terrace 4 of Youjiang River at Nanbanshan, Bose basin, S China. Two handaxes associated with 155 fresh, unabraded and sharp-edged tektite pieces (average length 29 mm) in 60cm thick horizon, suggesting tektites buried immediately after airfall event, and artifacts and tektites deposited simultaneously 803 ka. More stone artifacts unearthed above tektite layer, indicating early humans survived event)

Wang, W., R. Potts, B.Y. Yuan, W.W. Huang, C. Hai, R.L. Edwards & P. Ditchfield (2007)- Sequence of mammalian fossils, including hominid teeth, from the Bubing Basin caves, south China. J. Human Evolution 52, 4, p. 370-379.

Westaway, K.E. & C.P. Groves (2009)- The mark of ancient Java is on none of them. Archaeology in Oceania 44, 2, p. 84-95.

(Suggested links between Javanese E Pleistocene Homo erectus and Australian Late Pleistocene Homo sapiens crania (Thorne, etc.) questionable. Hybridization of two species unlikely: no chronological overlap and phylogenetic analysis indicate no close genetic relationship between Ngandong-like population from Java and late Pleistocene Australian fossils from Willandra Lakes)

Westaway, M.C., A.C. Durband, C.P. Groves & M. Collard (2015)- Mandibular evidence supports *Homo floresiensis* as a distinct species. Proc. National Academy Sciences USA 112, 7, p. E604-E605.
(online at: www.pnas.org/content/112/7/E604.full.pdf)
(Mandibular characteristics of Homo floresiensis from Liang Bua, Flores, close to early hominins, and not pathological H. sapiens as suggested in Henneberg et al. and Eckhardt et al. 2014 papers)

Westaway, M.C., A. Durband & D. Lambert (2015)- Human evolution in Sunda and Sahul and the continuing contributions of Professor Colin Groves. In: A.M. Berle & M.F. Oxenham (eds.) Taxonomic tapestries: the threads of evolutionary, behavioural and conservation research, ANU Press, p. 249-276.
(online at: www.jstor.org/stable/pdf/j.ctt169wd9c.16.pdf)
('Late' Homo erectus from sites like Ngandong/ Sambungmacan/ Ngawi, Java, often viewed as advanced H. erectus or sometimes as 'archaic' H. sapiens, but may be separate species Homo soloensis. Etc.)

Westaway, K.E., J. Louys, R. Due Awe, M.J. Morwood, G J. Price, J.X. Zhao, M. Aubert, R. Joannes-Boyau, T.M. Smith et al. (2017)- An early modern human presence in Sumatra 73,000-63,000 years ago. Nature 548, 7667, p. 322-325.
(Reinvestgation of Lida Ajer cave in Padang Highlands, W Sumatra, which yielded Late Pleistocene human teeth (Dubois 1890), associated with rich rainforest fauna. Enamel-dentine junction morphology, enamel thickness and comparative morphology show that teeth belong to anatomically modern humans (Homo sapiens). Dating of bone-bearing sediments and U-series/ electron spin resonance dating of Pongo mammalian teeth place modern humans in Sumatra between 73-63 ka. Evidence of rainforest occupation by H. sapiens at ~70 ka is ~20 ka earlier than assumed timing of dispersal of modern humans across SE Asia)

Wibowo, U.P., E. Setiyabudi & I. Kurniawan (2018)- A *Stegodon* mandible from Cipanaruban, Subang, West Java; description and its position in the Java vertebrate biostratigraphy. J. Geologi Sumberdaya Mineral 19, 1, p. 9-14.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/126/333)
(Mandible of Stegodon trigonocephalus at Cipanaruban River near Pasir Cabe paleontological site (Von Koenigswald 1935), ~6 km E of Subang. Presumably part of Cisaat Fauna, E Pleistocene)

Wibowo, U.P., I.Y.P. Suharyogi & E. Setiyabudi (2017)- The enigma of the existence of vertebrate fossils in the Flores Island. Proc. Joint Conv. HAGI-IAGI-IAFMI-IATMI (JCM 2017), Malang, 3p. *(Extended Abstract)*
(Fossil analyses indicate Pleistocene vertebrate faunas on Flores fauna most likely from Java, not Sulawesi (characteristics of Stegodon, giant tortoise and hominids that look like descendants of Homo erectus)

Wolpoff, M.H. (1984)- Evolution in *Homo erectus*: the question of stasis. Paleobiology 10, 4, p. 389-406.
(Analyses of Homo erectus fossils, incl. Indonesian material. Shows evolutionary changes in increased cranial capacity and mandibular and dental features. Late end of H. erectus range difficult to define, as evidenced by difficulty in agreeing on whether Ngandong (C Java) samples are H. erectus or H. soloensis or H. sapiens)

Wolpoff, M.H., A.G. Thome, J. Jelinek & Y. Zhang (1984)- The case for sinking *Homo erectus*. 100 years of *Pithecanthropus* is enough! In: J.L. Franzen (ed) 100 years of *Pithecanthrops*, the *Homo erectus* problem. Courier Forschungsinst. Senckenberg, Frankfurt, 171, p. 341-361.
(Homo erectus and Homo sapiens part of single evolving lineage in past two million years)

Yudha, D.S. (2008)- Reevaluation du crane Ngawi 1 (*Homo erectus*, Java, Indonesie), apports de lôimagerie 3D et des analyses multivariees. Master Thesis Quaternaire et Prehistoire, Museum Nat. Histoire Naturelle, Paris, p. 1-55.
(online at: http://hopsea.mnhn.fr/pc/thesis/M2_DONAN_S_Y.pdf)

('Reevaluation of the Ngawi 1 skull (Homo erectus, Java, Indonesia); 3D imaging and multivariate analyses'. M-L Pleistocene Ngawi 1 skull found in 1987 morphologically close to 'late Homo erectus' Ngandong and Sambungmacan hominids. Morphological characteristics of Ngawi skull not directly comparable to Chinese (Sinanthropus) and African Homo erectus (H. ergaster), but one African individual (Olduvai 9) fits well in Ngangong-Ngawi group)

Zaim, Y. (2004)- A new discovery of *Stegodon* in Early Pleistocene sediments from the Sumedang area (West Jwawa, Indonesia). 18th. Int. Senckenberg Conf., Weimar 2004, 1p. *(Abstract only)*
(online at: www.senckenberg.de/fis/sngconf18/doc/abstracts/115_Zaim.pdf)
(Summary of Zaim 2002 paper. Dwarf Stegodon tooth from E Pleistocene of W Java, probaby of Satir or Ci Saat fauna indicates E Pleistocene island in this part of W Java)

?Zaim, Y., Y. Rizal, Suminto, A. Bettis, R.L. Ciochon & R. Larick (2002)- Vertebrate fossils from the Lower Lahar, Sangiran Formation, Central Java, Indonesia. Buletin Geologi ?

Zanolli, A. (2013)- Additional evidence for morpho-dimensional tooth crown variation in a new Indonesian *H. erectus* sample from the Sangiran Dome (Central Java). PlosOne 8, 7, e67233, p. 1-15.
(online at: http://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0067233&type=printable)
(Fifteen new Homo erectus fossil dental remains found in last two decades in Kabuh Fm of Sangiran Dome area, some from excavation of human occupation floors in basal Kabuh Fm)

Zanolli, A. (2014)- Molar crown inner structural organization in Javanese *Homo erectus*. American J. Physical Anthropology 156, 1, p. 148-157.
(Study of 7 Homo erectus permanent molar crowns from late E- early M Pleistocene Kabuh Fm of Sangiran, C Java. Features differ from penecontemporaneous African H. erectus/ergaster and H. heidelbergensis, as well as in Neanderthals, but occur in recent human populations)

Zeitoun, V. (2000)- Revision de lôespece *Homo erectus* (Dubois, 1893). Bull Memoires Soc. Anthropologie de Paris, N.S., 12, 1-2, p. 1-200.
('Reappraisal of the species Homo erectus'. Mainly on details of skull morphology)

Zeitoun, V., V. Barriel & H. Widianto (2016)- Phylogenetic analysis of the calvaria of *Homo floresiensis*. Comptes Rendus Palevol 15, 5, p. 555-568.
(online at: www.sciencedirect.com/science/article/pii/S1631068316000130)
(Metrics of calvariae of human fossils from Liang Bua, Flores, indicate LB1 is included in Homo erectus clade, and less similar to Sambungmacan-Ngandong-Ngawi group. H. floresiensis not pathological modern human)

Zeitoun, V., W. Chinnawut, R. Debruyne & P. Auetrakulvit (2015)- Assessing the occurrence of *Stegodon* and *Elephas* in China and Southeast Asia during the Early Pleistocene. Bull. Soc. Geologique France 186, 6, p. 413-427.
(Critical review of validity of associations of Stegodon and Elephas in E Pleistocene of China and SE Asia)

Zeitoun, V., A. Lenoble, F. Laudet, J. Thompson, W.J. Rink & T.D. Asa (2008)- Taphonomy and paleoecological significance of the *Ailuropoda-Stegodon* complex of Ban Fa Suai (Northern Thailand). In: J.P. Pautreau et al. (eds.) 11th Int. Conf. Eurasea (EurASEAA 2006), Bougon 2006, Chiang Mai, p. 51-57.
(online at: https://halshs.archives-ouvertes.fr/halshs-00423522/document)
(Sino-malayan fauna of Von Koenigswald (1938), more commonly termed Ailuropoda (giant panda) - Stegodon fauna complex viewed as indicator of tropical upper M Pleistocene in SE Asia. Also contains primates Gigantopithecus and Pongo, Sus, Bos, Cervus, Hylobates, Tapirus, etc.. Cave of the Monk mixed assemblage?)

Zeitoun, V., H. Widianto & T. Djubiantono (2007)- The phylogeny of the Flores Man: the cladistic answer. In E. Indriati (ed.) Proc. Int. Seminar Southeast Asian paleoanthropology: Recent advances on Southeast Asian paleoanthropology and archaeology, Gadjah Mada University, Yogyakarta, p. 54-60.

Zhang, P., W. Huang & W. Wang (2010)- Acheulean handaxes from Fengshudao, Bose sites of South China. Quaternary Int. 223-224, p. 440-443.
(Acheulian lithic assemblage rich in handaxes from Fengshudao (Guangxi province, S China), adjacent to N Bose basin. Age from tektite dating ~800 ka. Artifacts manufactured from quartzite, sandstone, volcanic rocks, chert and quartz)

Zin-Maung-Maung-Thein, Thaung-Htike, T. Tsubamoto, M. Takai, N. Egi & Maung-Maung (2006)- Early Pleistocene Javan rhinoceros from the Irrawaddy Formation, Myanmar. Asian Paleoprimatology 4, p. 197-204
(online at: http://repository.kulib.kyoto-u.ac.jp/dspace/handle/2433/199762)
(Rhinoceros sondaicus (Java rhino) discovered in upper part of E Pleistocene Irrawaddy Fm. Species widespread in upper M Pleistocene- U Pleistocene of Laos, Vietnam, Cambodia, Thailand, Java, Sumatra, and Borneo, and probably originated in E Pleistocene in continental Asia)

Zin-Maung-Maung-Thein, M. Takai, T. Tsubamoto, Thaung-Htike, N. Egi & Maung-Maung (2008)- A new species of Dicerorhinus (Rhinocerotidae) from the Plio-Pleistocene of Myanmar. Palaeontology 51, 6, p. 1419-1433.
(online at: http://onlinelibrary.wiley.com/doi/10.1111/j.1475-4983.2008.00813.x/epdf)
(Skull and mandible of Dicerorhinus gwebinensis n.sp. from upper Irrawaddy sediments (Plio-Pleistocene) in C Myanmar. More similar to extant species D. sumatrensis (Sumatran rhinoceros) than to other species of genus)

Zin-Maung-Maung-Thein, M. Takai, T. Tsubamoto, N. Egi, Thaung-Htike, T. Nishimura, Maung-Maung & Zaw-Win (2010)- A review of fossil rhinoceroses from the Neogene of Myanmar with description of new specimens from the Irrawaddy sediments. J. Asian Earth Sciences 37, p. 154-165.
(8 species of fossil rhinoceros in Neogene of C Myanmar: M-L Miocene 'Diceratherium' naricum, Brachypotherium spp., etc. Latest Miocene -Pleistocene onset of extant genera Rhinoceros and Dicerorhinus. Dispersed to island SE Asia from continental Asia during E-M Pleistocene periods of low eustatic sea level)

XI. HYDROCARBONS, COAL, MINING (66)

XI.1. Hydrocarbon Occurrences/ Assessment (9)

Holloway, N. (2011)- SE Asia exploration, still going strong or heading for eclipse? Proc. 2011 SE Asia Petroleum Expl. Soc. (SEAPEX) Conf., Singapore, 18, p. 1-38. *(Abstract + Presentation)*
(IHS review. SE Asia still attrctive for independents)

Ramdhan, A.M., L.M. Hutasoit & E. Slameto (2018)- Lateral reservoir drainage in some Indonesiaƞs sedimentary basins and its implication to hydrodynamic trapping. Indonesian J. Geoscience 5, 1, p. 65-80.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/394/255)
(Lateral reservoir drainage is hydrodynamic flow type driven by differences in overpressure and can lead to hydrodynamically tilted hydrocarbon-water contacts. Tilted contacts present in fields in Lower Kutai Basin, Arun Field in N Sumatra, Vorwata Field in Bintuni and BD Field of East Java)

Satyana, A.H. (2016)- Review of Indonesia's petroleum exploration 2000-2015: where from. Proc. IPA 2016 Technical Symposium, Indonesia exploration: where from- where to, Indon. Petroleum Assoc. (IPA), Jakarta, 28-TS-16, p. 1-26.
(In Indonesia 974 exploration and appraisal wells drilled from 2002-2015, 617 onshore and 357 offshore. Of 676 new field wildcats 310 encountered hydrocarbons, adding in-place resources of 18,500 MMBOE. Discoveries in W Indonesia in 5 plays: (1) Paleogene rift sections of Sumatra, W Java, W Natuna; (2) pre-Cenozoic fractured basement in S Sumatra, W Java, E Java; (3) Oligo-Miocene carbonate build ups of E Java and U Kutai; (4) Mio-Pliocene deep-water turbidites of N Makassar and Tarakan; (5) Mio-Pliocene growth-faults of delta progradation of Tarakan Basin. In E Indonesia in 2 plays (Jurassic and Miocene). With details on significant discoveries and dry wells)

Siddayao, C.M. (1980)- The off-shore petroleum resources of South-East Asia- potential conflict situations and related economic considerations. Oxford University Press, Kuala Lumpur, p. 1-205.

Siddiq, F., Z.M. Rubianto, J. Prasetyo & S. Damayanti (2018)- Evaluation and assessment of all play and resources of petroleum system Indonesia to optimize big resources exploration for big oil and gas discoveries in Indonesia. Proc. 42nd Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA18-267-G, 13p.
(Play assessment: 563 plays in 1954 prospects and 2173 leads in 43 sedimentary basins in Indonesia. Total in-place resources at P90 is 45.5 BBO and 155 TCF (cut-off of big resources is 500 MMBO for oil, 1 TCF for gas). Current oil production in Indonesia ~810,000 BOPD, against demand of >1.5 MMBOD)

Situmorang, B. (1986)- Offshore exploration for hydrocarbons in Indonesia. Lemigas Scientific Contr. 9, 2, p. 3-8.
(Brief review of hydrocarbon exploration in Indonesia until 1985)

US Energy Information Administration (EIA) (2015)- Technically recoverable shale oil and shale gas resources: Thailand. EIA/ARI World Shale Gas and Shale Oil Resource Assessment Report XXII, p. 1-18.
(online at: www.eia.gov/analysis/studies/worldshalegas/pdf/Thailand_2013.pdf)

Widarsono, B. (2014)- Porosity versus depth characteristics of some reservoir sandstones in Western Indonesia. Scientific Contr. Oil and Gas, Lemigas, Jakarta, 37, 2, p. 87-104.
(online at: www.lemigas.esdm.go.id/publikasi/read/scientific/1/)
(Porosity depth models derived from core samples from 549 wells in 8 producing sedimentary basins in W Indonesia)

Widarsono, B., A. Muladi & I. Jaya (2007)- Vertical-horizontal permeability ratio in Indonesian sandstone and carbonate reservoirs. Proc. Simp. Nasional IATMI, July 2007, UPN Yogyakarta, IATMI 2007-TS-09, 20p.
(Permeablity anisotropy in both sandstones and carbonate rocks inwells in Indonesia (KV/KH) generally below 1.2. Carbonate rocks greater portion of data above 1.2)
(online at: www.iatmi.or.id/assets/bulletin/pdf/2007/2007-09.pdf)

XI.2. Hydrocarbon Source Rocks, Oils and Gases (9)

Astawa, I.N., D. Setiady, P.H. Wijaya, G.M. Hermansyah & M.D. Saputra (2016)- Indikasi gas biogenik di perairan Delta Mahakam, Provinsi Kalimantan Timur. J. Geologi Kelautan 14, 2, p. 103-114.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/354/282)
('Indications of biogenic 'swamp gas' in waters of the Mahakam Delta. Numerous indications of biogenic methane in shallow seismic profiles and cores in shallow sediments of Mahakam Delta distributary channels)

Astawa, I.N., P.H. Widjaja & W. Lugra (2011)- Pola sebaran gas charged sediment dasar laut di perairan Sidoarjo, Jawa Timur. J. Geologi Kelautan 9, 2, p. 66-77.
(online at: http://ejournal.mgi.esdm.go.id/index.php/jgk/article/view/201/191
('The distribution pattern of gas charged sediment in seabed of waters of Sidoarjo, East Java'. Belt of biogenic shallow gas-charged sediments on shallow seismic profiles off Porong Delta, Madura Straits)

Marty, D.G. & J.E. Garcin (1987)- Presence de bacteries methanogenes methylotrophes dans les sediments profonds du detroit de Makassar (Indonesie). Oceanologica Acta 10, 2, p. 249-253.
(online at: http://archimer.ifremer.fr/doc/00109/22074/19716.pdf)
('Occurrence of methylotrophic methane-producing bacteria in deep-sea sediments from Makassar Strait (Indonesia)'. Competition between sulfate reducing and methane producing bacteria one of main factors controlling biogenic methane genesis in anoxic marine sediments. Methylotrophic methanogenic bacteria found in shallow marine sediments, and methanogenic bacteria able to produce methane from methylamines in sediments from oceanic trench at depth of 2000m in Makassar Strait)

Murtrijito, N.A., F.M. Naibaho & W. Ashuri. (2014)- Shale gas: geological perspective of Baong Formation for future chances of North Sumatra Basin; compared to Fort Worth Basin in USA. Majalah Geologi Indonesia 28, 1, p. 41-49.
(online at: www.bgl.esdm.go.id/publication/index.php/dir/article_detail/719)
(Interbedded black shale and limestone of M Miocene Baong Fm in N Sumatra Basin similarities with Barnett Shale of Fort Worth Basin, therefore Baong Fm may also become commercial gas resource)

Permana, A.K. (2017)- Aplikasi petrologi organik dalam analisis cekungan dan eksplorasi hidrokarbon pada beberapa cekungan di Indonesia dan Australia. J. Geologi Sumberdaya Mineral 18, 3, p. 117-135.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/235/289)
('Application of organic petrology in basin analysis and hydrocarbon exploration in several basins in Indonesia and Australia'. Brief review of organic petrology in Miocene of S Sumatra, Triassic of W Timor and Permian-Triassic of Bowen Basin, NE Australia)

Prabowo, B. & G.B. Sulistyo (1999)- Organic geochemical study for hydrocarbon generation identification. Proc. 28th Ann. Conv. Indon. Assoc. Geol. (IAGI), Jakarta, 2, p. 79-98.
(Geochemistry of 22 oils from C Sumatra basin. Two groups, both sourced from lacustrine facies in Pematang Fm: (1) Minas, Oki and Libo fields (with botryococcane, heavy C-isotopes, etc.); (2) Kotabatak area, Kotagaro, Nusa, NW Minas (Telisa Fm) (no botryococcane, light C-isotopes, etc.))

Pramana, A.A., S. Rachmat, D. Abdassah & M. Abdullah (2012)- A study of asphaltene content of Indonesian heavy oil. Modern Applied Science 6, 5, p.
(online at: http://ccsenet.org/journal/index.php/mas/article/view/15690/11133)

Satyana, A.H. (2017)- Regional petroleum geochemistry of Indonesian basins: updated, and implications for future exploration. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-555-G, 32p.
(Comprehensive review of petroleum geochemistry of Indonesian basins. Oils of W Indonesian basins three broad families: (1) lacustrine (C Sumatra, Sunda-Asri, partly W Natuna, and W Sulawesi offshore/N Makassar Straits);(2) fluvio-deltaic (S Sumatra, W Java, E Java, Barito, Kutai, Tarakan), and (3) marginal-shallow marine (N Sumatra. W Sulawesi onshore). Most oils from E Indonesia basins marginal-shallow marine;

sourced from Neogene (Salawati, Banggai), Jurassic (Bintuni), Triassic-Jurassic (Timor, Buton, Seram, Timor). Both thermogenic and biogenic gases)

Satyana, A.H. (2017)- Future petroleum play types of Indonesia: regional overview. Proc. 41st Ann. Conv. Indon. Petroleum Assoc. (IPA), Jakarta, IPA17-554-G, 33p.
(Review of 8 future hydrocarbon play types (proven and unproven) in Indonesia: (1) Paleogene synrift and pre-Tertiary Basement (Sumatra-Java-Natuna-Barito); (2) Neogene delta and deepwater of E Kalimantan-Makassar Straits, (3) Paleogene synrift and postrift of W Sulawesi offshore-Bone-Gorontalo; (4) Gondwanan Mesozoic sections of Sumatra-Java-Makassar Straits; (5) Paleogene-Neogene sub- and intra-volcanic of Java-W Sulawesi, (6) collided Mesozoic Australian passive margin sediments (Gorontalo-Buton-Banggai-Sula-Outer Banda Arc-Lengguru-Central Ranges of Papua); (7) Paleozoic of Arafura Sea- S Papua; (8) Neogene Pacific province of North Papua)

XI.3. Coal (20)

Adhi, R.N., A. Pujobroto, C.K.K. Gurusings, U. Kuntjara, D.N. Sunuhadi et al. (2004)- National resources and reserves of mineral, coal, and geothermal. Indonesian Direct. Gen. Geology and Mineral Resources, Special Publ. 103, p. 1-130.

Biagioni, S., V. Krashevska, Y. Achnopha, A. Saad, S. Sabiham & H. Behling (2015)- 8000 years of vegetation dynamics and environmental changes of a unique inland peat ecosystem of the Jambi Province in central Sumatra, Indonesia. Palaeogeogr. Palaeoclim. Palaeoecology 440, p. 813-829.
(Study of 7.3m peat core a 733 cm-long core from Air Hitam peatland in Jambi Province. In last ~7800 years site covered by dipterocarp-swamp mixed rainforest during first 2000 years, after which freshwater swamp taxa more important, in particular Durio trees. At ~4500 years ago swamp vegetation shifted to pole forest with Pandanus thickets in response to change from minerotrophic to ombrotrophic conditions)

Bowe, M. & T.A. Moore (2015)- Coalbed methane potential and current realisation in Indonesia. In: AAPG Asia Pacific Region GTW, Opportunities and advancements in coal bed methane in the Asia Pacific, Brisbane, Search and Discovery Art. 90234, 5p. *(Extended Abstract)*
(Estimates for CBM potential ranged up to 450 TCF, but realisation of resource limited so far. Main CBM targets Miocene coal seams in S Sumatra and Kutai Basins. S Sumatra coal seams generally thicker (5-25 m) than Kutai Basin and laterally continuous over 10s of km. 54 PSCs since 2008. 84 CBM core and pilot wells drilled by 18 operators. Gas contents generally higher in Kutai Basin (2-10 m3/t) than in S Sumatra Basin (<3 m3/t). Gas saturations tend to be >80% at depths >300m. Gas dominated by biogenically-derived methane)

Casdira, R. Budiana & E.R. Tantoro (2014)- Coal Bed Methane exploration in Sumatera. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 461-466.
(Although gas resource probably huge, CBM is yet to be proved that it can be produced economically)

Barret, R.A. (1999)- Plio-Pleistocene sedimentation and biogenic gas generation Waropen and Ramu Basins, NeuGuinea (Irian) Island, In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p.

Daulay, B., B. Santoso & N.S. Ningrum (2015)- Evaluation of selected high rank coal in Kutai Basin, East Kalimantan, relating to its coking properties. Indonesian Mining J. 18, 1, p. 1-10.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/301/186)

Esterle, J.S. (1999)- Can peats be used to discriminate local subsidence from regional tectonism? Examples from Sarawak, Malaysia and Sumatra, Indonesia. In: H. Darman & F.H. Sidi (eds.) Tectonics and sedimentation

of Indonesia, FOSI-IAGI-ITB Regional Seminar to commemorate 50th anniversary of Van Bemmelen's Geology of Indonesia, Bandung 1999, p. 24-28.
(Holocene peats of E Sumatra and Sarawak started forming at ~6000 BP and are models for formation of coal measures. Two modes of peat accumulation, one where it keeps up with clastic sedimentation (rel. high preservation potential), and one where it outstrips clastic sedimentation (rel. poor preservation potential))

Friederich, M.C., T.A. Moore & R.M. Flores (2016)- A regional review and new insights into SE Asian Cenozoic coal-bearing sediments: why does Indonesia have such extensive coal deposits? Int. J. Coal Geology 166, p. 2-35.
(SE Asia Cenozoic coal-bearing basins grouped in five regions: N Sundaland, S Sundaland, Philippines, W Myanmar and E Indonesia; first three discussed here. Most significant coal deposits of SE Asia in Neogene of S Sundaland (Borneo, Sumatra), over extensive coastal plains in regressive setting. Coal deposits of N Sundaland (i.e. SE Asian continental) in small disconnected non-marine grabens, and are areally restricted. S Sundaland resided mainly within ± 10° of equator, with paleoclimate conducive to ever-wet conditions. N Sundaland resided >10°N of equator, probably monsoonal with annual dry periods. Etc.)

Friederich, M.C. & T. van Leeuwen (2017)- A review of the history of coal exploration, discovery and production in Indonesia: the interplay of legal framework, coal geology and exploration strategy. Int. J. Coal Geology 178, p. 56-73.
(Review of geologic setting and 160 years history of coal exploration and commercial production in Indonesia. Coal exploration and production of Eocene and Miocene coal started in late 1800's in SE Kalimantan and W and S Sumatra. Very limited production from World War 2 until 1980s when modern coal mining industry started to develop. In 2005 Indonesia became world's largest coal exporter)

Harrington, J. (2016)- CBM Indonesia- dull past, bright future. In: 2016 Technical Symposium Where from, where to, Indon. Petroleum Assoc. (IPA), Jakarta, p.

Korasidis, V.A., M.W. Wallace & B. Jansen (2017)- The significance of peatland aggradation in modern and ancient environments. Palaios 32, 10, p. 658-671.
(Modern and ancient Cenozoic peat cycles commonly evolve from inundated wetland assemblages to more elevated and well-drained forest. Changing floral compositions result from changes in substrate wetness during peatland aggradation in high rainfall settings. Includes some discussion of SE Asian peatlands)

Page, A., A. Hooijer, J. Rieley, C. Banks & A. Hoscilo (2012)- The tropical peat swamps of Southeast Asia. In: D. Gower et al. (eds.) Biotic evolution and environmental change in Southeast Asia, Cambridge University Press, Chapter 16, p. 406-433.

Prijono, A. (1988)- Review of coal development in Indonesia. In: Proc. First Asia/ Pacific mining conference, Thailand, 27p.

Santoso, B. (2015)- Petrologi batu bara Sumatra dan Kalimantan: jenis, peringkat dan aplikasi. Lembaga Ilmu Pengetahuan Indonesia (LIPI) Press, Jakarta, p. 1-132.
('Petrology of coals from Sumatra and Kalimantan: types, ratings and applications')

Santoso, B. (2017)- Petrographic characteristics of selected Tertiary coals from Western Indonesia according to their geological aspects. Indonesian Mining J. 20, 1, p. 1-30.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/178/110)
(Tertiary coals from W Indonesia (Sumatra, Kalimantan, Java) similarities and differences. Coals dominated by vitrinite (detrovitrinite,telovitrinite), common liptinite (resinite, cutinite, suberinite) and rare inertinite (semifusinite, sclerotinite, inertodetrinite) and mineral matter. Differences reflect differences in climate and peat conditions. Vitrinite reflectance variations caused by variations in burial and effects of igneous intrusions)

Sanusi, S., A. Kuswandi, Radian M. Jufri & K.S. Anggarini (2014)- Evaluation of Coalbed Methane potential of Muara Enim Formation in the Muara Enim Area, South Sumatera. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 467-483.
(Three well drilling program for CBM evaluation in Late Miocene lignite- sub-bituminous coals of Muara Enim Fm indicates favourable gas content: average 3.55 m3/t (125.31 scf/t) at depth of 410- 812m)

Suparka, S., M. Djuwansah & S. Siregar (1996)- Peat in Indonesia: a dilemma of utilization and environmental impact. In: B. Ratanasthien & S.L. Rieb (eds.) Proc. Int. Symposium on Geology and Environment, Chiang Mai, Thailand, p. 109-121.
(online at: http://library.dmr.go.th/Document/Proceedings-Yearbooks/M_1/1996/)

Van Diest, P.H. (1871)- De kolenrijkdom der Padangsche Bovenlanden en de mogelijkheden van de voordeelige ontginning. Stemler, .Amsterdam, p. 1-76.
(online at: https://books.googleusercontent.com/books/..)
('The coal resources of the Padang Highlands and the possibilities of profitable exploitation'. Historic economic evalution of Ombilin coalfield in West Sumatra. Ombilin coals relatively high in carbon (79-80%) and low in ash (0.27-0.95%), Sulfur 0.34-0.87%)

Zetra, Y., H.S. Kusuma, F. Riandra, I.B. Sosrowidjojo & R.Y. Perry Burhan (2018)- The oxygenated biomarker as an indicator of origin and maturity of Miocene brown coal, Sangatta coal mines, East Kalimantan. Indonesian J. Geoscience 5, 2, p. 107-116.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/289/260)

Zulkifley, M.T.M., Ng T.F., W.H. Abdullah, J.K. Raj, S.P. Param, R. Hashim & M.A. Ashraf (2013)- Distribution, classification, petrological and related gochemical (SRA) characteristics of a tropical lowland peat dome in the Kota Samarahan-Asajaya area, West Sarawak, Malaysia. Open Geosciences (C. European J. Geoscience) 5, 2, p. 285-314.
(online at: www.degruyter.com/downloadpdf/j/geo.2013.5.issue-2/s13533-012-0130-y/s13533-012-0130-y.pdf)
(Lateral variations in Plaie peat forest W of Samarahan, Sarawak. Peat thickness 0.2-2.3m, increasing to W)

XI.4. Minerals, Mining (28)

Abidin, H.Z. & A.S. Hakim (2005)- Endapan sulfida masif volkanogenik: ciri dan sebarannya di Indonesia. Publikasi Ilmiah Pendidikan dan Pelatihan Geologi. 1, 1, p. 47-57.
('Volcanogenic Massive Sulphide deposits: characteristics and distribution in Indonesia'. Reprinted in Metalogeni Sundaland I (2014), p. 263-273. Polymetallic Massive Sulfide deposits always associated with volcanics and sediments. VMS deposits in Indonesia two types (1) Kuroko-type Sangkaropi (S Sulawesi, Cu-Pb-Zn), (2) Lerokis and KaliKuning (Wetar), with stratabound Au-Ag bodies of sedimentary exhalative origin)

Agoes, E. (1988)- Uranium exploration in Indonesia. In: Proc. Conf. Uranium deposits in Asia and the Pacific; geology and exploration, Jakarta 1985, Int. Atomic Energy Agency (IAEA), Vienna, IAEA-TC-543/12, p. 167-178.
(Radioactive minerals found in several areas in W and E Indonesia)

Andrew, R.L. (1995)- Porphyry copper-gold deposits of the southwest Pacific. Mining Engineering 47, 1, p. 33-38.

Gryc, G., W.O. Addicott, F. Sidlauskas et al. (1999)- Mineral-resources map of the Circum-Pacific region, Northwest Quadrant. U.S. Geol. Survey (USGS) Circum-Pacific Map 46, 1:10M scale.
(online at: https://pubs.usgs.gov/cp/46/plate-1.pdf)

Hammarstrom, J.M., A.A. Bookstrom, C.L. Dicken, B.J. Drenth, S. Ludington, G.R. Robinson, B.T. Setiabudi et al. (2013)- Porphyry copper assessment of Southeast Asia and Melanesia. U.S. Geol. Survey Scientific Investigations Report 2010-5090-D, p. 1-332.
(online at: http://pubs.usgs.gov/sir/2010/5090/d/sir2010-5090d_text.pdf)
(Regional review of volcanic and magmatic arc systems of SE Asia, known porphyry copper occurrences and probabilistic assessment of areas with potential porphyry copper resources. Estimate of undiscovered copper resources in study area (~288 Mt) is ~3.5 times amount of copper in identified resources (84 Mt))

Harahap, B. & R. Yuniarni (eds.) (2015)- Metalogeni Sundaland, vol. II. Kumpulan karya tulis ilmiah Prof. Dr. Hamdan Zainal Abidin. Badan Geologi, Bandung, p. 1-338.
(‘Metallogeny of Sundaland, vol. II'. Second reprint collection of scientific papers by Prof. Dr. H.Z. Abidin from 1994-2005)

Harjanto, S., S. Virdhian & E. Afrilinda (2013)- Characterization of Indonesia Rare Earth minerals and their potential processing techniques. Conf. Tools for Materials Science & Technology 2013, Montreal, 9p.
(In Indonesia REE minerals monazite, xenotime and zircon are associated with tin, uranium and gold in alluvial deposits. REE range from 30-400 ppm in sands on Bangka and Belitung REE minerals, and are by-product of tin ore mining and extraction. Also: lower grade monazite and xenotime as alluvial in Kampar and Riau Islands, REE minerals in uranium alluvial in W Kalimantan)

Imai, A., T. Ikuno, K. Sanematsu, T. Sueoka, K. Watanabe (2009)- Rare Earth Elements in weathered crusts of granitic rocks in Southeast Asia tin belt (

Irzon, R., I. Syafri, J. Hutabarat & P. Sendjadja (2016)- REE comparison between Muncung Granite samples and their weathering products, Lingga Regency, Riau Islands. Indonesian J. Geoscience 3, 3, p. 149-161.
(online at: https://ijog.geologi.esdm.go.id/index.php/IJOG/article/view/344/226)
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(Review of coastal iron sand deposits in Indonesia. Black or gray iron sands in Sumatra, Java, Bali and Nusatenggara Islands largely derived from denudation of andesite and 'Old Andesite Fm' enriched in magnetite and ilmenite minerals. Coastal zones, especially S parts of Neogene Sunda Banda magmatic arc from N Sumatra to E Indonesia, potential areas for iron sand deposits)

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('Occurrences and exploitation of gold in the Netherlands East Indies (after a presentation by S.J. Truscott,..')
(Brief review of gold mining regions of Sumatra, Kalimantan (W Kalimantan near Samba, C Kalimantan in source areas of Kahayan and Kapuas Rivers and SE Kalimantan) and N Sulawesi, as known in 1902)

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(online at: https://babel.hathitrust.org/cgi/pt?id=nyp.33433089972370;view=1up;seq=489)
('The occurrence and exploitation of iron ore in the Netherlands colonies'. Very brief listing of known iron ore occurrences in Indonesia: Gunung Besi (Sumatra; hematite), Teluk Betung (S Sumatra; magnetite), Banyumas (Java; iron sand) Gunung Tambaga (SE Kalimantan; hematite). None producing. All of questionable commercial value)

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(online at: http://pubs.usgs.gov/cp/42/report.pdf)

Rochani, S., Pramusanto, Sariman & R.I. Anugrah (2008)- The current status of iron minerals in Indonesia. Indonesian Mining J. 11, 2, p. 1-17.
(online at: http://jurnal.tekmira.esdm.go.id/index.php/imj/article/view/590/452)
(Indonesia iron resources include (1) primary iron ore (hematite, magnetite; 17%), (2) iron sand; commonly used for cement industries (8%) and (3) lateritic iron ore (limonite, from weathered ultrabasic rocks) used as coal liquefaction catalyst (75%). With listings of main iron sand deposits (10) and lateritic deposits (10) and primary iron ore deposits (10))

Sainsbury, C.L. (1969)- Tin resources of the world. U.S. Geol. Survey Bull. 1301, p. 1-55.
(online at: https://pubs.usgs.gov/bul/1301/report.pdf)
(With brief reviews of tin deposits of Indonesia, Malaysia, Thailand, Burma)

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(online at: http://iopscience.iop.org/article/10.1088/1755-1315/118/1/012075/pdf)
(In Indonesia potential sources of REE in tin mining residues of Bangka islands, but REE from monazite and xenotime difficult to extract and contain high radioactivity. Granitoids in Sumatra, Sulawesi, Kalimantan and Papua may have weathering crusts with REE-bearing allanite and titanite)

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(REE most likely associated with Mesozoic granitic rocks in W Indonesian, i.e. Tin islands (Bangka, Belitung, Bintan and Singkep) and west C Kalimantan. Tin islands similar geology with REE-producing China and SE Asia granite belts)

Subandrio, A.S. (2014)- Mesozoic-Cenozoic iron ore mineralization associated with magmatism in the Indonesian Sundaland Region. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 425-447.
(Iron ore deposits widespread in Sumatra and Kalimantan, but little explored. 'Banded' iron ore deposits probably related to Mesozoic submarine hydrothermal activity described from Subullusalam (Aceh, N Sumatra), Tanggamus (Lampung, S Sumatra) , Kendawangan (W Kalimantan; ore mined from late Mesozoic Pinoh meta-sedimentary complexes), and Balaisebut iron ore mineralization (NE of Pontianak, NW Kalimantan, in Sanggau area))

Sunarya, Y. & J. J. Bache (1995)-Previous epithermal gold mines in Indonesia. Direktorat Sumberdaya Mineral, Spec. Publ. 80, p.

Syaeful, H., K. Setiawan W., I.G. Sukadana & A. Gunawan (2014)- Rare Earth Element exploration in Indonesia. In: I. Basuki & A.Z. Dahlius (eds.) Sundaland Resources, Proc. Indon. Soc. Econ. Geol. (MGEI) Ann. Conv., Palembang, p. 205-217.
(REE Regions in Indonesia with potential REE resources in Bangka Belitung, Kalimantan and W Sulawesi)

Van den Broek, J. (1921)- Onze koloniale Mijnbouw, IV. Tinmijnbouw. Tjeenk Willink, Haarlem, p. 1-95.
('Our colonial mining industry, IV, Tin mining'. Early popular overview of tin mining in Bangka, Belitung and Singkep, Indonesia. Main tin ore cassiterite. Banka mining since ~1710, Belitung (Billiton) since 1851 and Singkep since 1860. All mining in alluvial deposits, eroded from granites. Max. depth of exploitation ~100m)

Wacaster, S. (2015)- The mineral industry of Indonesia. In: 2013 Minerals Yearbook, Indonesia, U.S. Geol. Survey, p. 12.1-12.7.
(online at: https://minerals.usgs.gov/minerals/pubs/country/2013/myb3-2013-id.pdf)
(Listing of minerals produced in Indonesia in 2013. No geology)

Whitehouse, J. (2011)- Manganese resource potential Banda arc region, Eastern Indonesia. Stratum Resources Pty Ltd, non-confidential report, p. 1-31.
(N Flores and Timor with many scattered occurrences of manganese)

Wijayanti, K., M.F. Rosana, E.T. Yuningsih, R.I. Sulistyawan (2017)- Karakteristik jasper merah di Pulau Jawa bagian selatan berdasarkan analisis SEM dan XRF. J. Geologi Sumberdaya Mineral 18, 1, p. 25-32.
(online at: http://jgsm.geologi.esdm.go.id/index.php/JGSM/article/view/82/123)
('Characteristics of red jasper in S Java based on SEM and XRF analysis'. Red, yellow and green jasper widespread in Indonesia. Red jasper most common, especially in S Mountains of Java. All S Java samples same cryptocrystalline texture. Red color from Fe, Cr, and V. High Ti content in Pacitan red jasper)

XII. HISTORIC INTEREST, LINKS (22)

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(In memoriam of G.L. Smit Sibinga, professor of physical geography in Amsterdam. Published series of (underappreciated?) papers on tectonics of Indonesian archipelago in 1920's and 1930's. Early supporter of Wegener's theory of horizontal movements of continents)

Barnard, T.P. (2013)- Thomas Diasô journey to Central Sumatra in 1684. In: Harta Karun. Hidden treasures on Indonesian and Asian European history from the VOC Archives in Jakarta, document 1, Arsip Nasional Republik Indonesia, Jakarta, p. 1-33.
(online: https://sejarah-nusantara.anri.go.id/media/dasadefined/HartaKarunArticles/HK001/Doc_1_Eng.pdf)
(Report of travels by Portuguese VOC trading agent into interior of Central Sumatra, following discovery of tin-mines at headwaters of Siak and Kampar Rivers in 1670s)

De Ruiter, P. (2016)- Het Mijnwezen in Nederlands-Oost-Indie, 1850-1950. Doct. Thesis University of Utrecht, p. 1-305.
(online at: dspace.library.uu.nl/handle/1874/342334)
('The Mines Department in the Netherlands East Indies, 1850-1950'. History of Geological Survey agency ('Dienst Mijnwezen') in Batavia, Bogor and Bandung during Dutch colonial era)

De Roever, W.P. (1962)- In memoriam Prof. Dr. Ir. J. Westerveld. Geologie en Mijnbouw 41, 10, p. 405-408.
(online at: https://drive.google.com/file/d/0B7j8bPm9Cse0Q0szeFlCbEJxc1k/view)
(Obituary of J. Westerveld, geologist of 'Dienst Mijnwezen' (Geological Survey) from 1929-1935. Author of 2 S Sumatra map sheets in 1931, 1933, papers on 'welded tuffs' of Sumatra, geology of Bangka and tin granites, etc.))

Hala, J. & G. Vargyas (eds.) (1992)- Horst Von Bandat, a Hungarian geologist in western New Guinea. Occasional papers in Anthropology 4, Ethnographical Institute Hungarian Academy of Sciences, Budapest, 110p.
(Memorial volume on Horst van Bandat, petroleum geologist for BPM in Sumatra and Sulawesi (1929-1935) and NNGPM in West New Guinea (1936-1938). Known mainly for geological photo-interpretation. Died 1982)

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Isler, A. & P. Von Wyss-Giacosa (2011)- Aufschlussreiches Borneo. Objekte, Fotografien und Dokumente des Schweizer Geologen Wolfgang Leupold in Niederlandisch-Indien 1921-1927. Volkerkundemuseum der Universität Zurich, p. 1-155.
('Revealing Borneo. Objects, photographs and documents of Swiss geologist Leupold in the Netherlands Indies 1921-1927'. Memorabilia from Geological Survey geologist Wolfgang Leupold, surveying in Tarakan, Bunyu, Bulungan, Berau and Mangkalihat areas of NE Kalimantan)

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('Eleven landscape views from Java drawn after nature by Franz Junghuhn'. Eleven classic paintings of Gunung Gamping, Gunung Sewu, Kawah Patua, Dieng Plateau, Guntur, Merapi, Sumbing, Gede, etc.)

KNGMG (1994)- Presentation of the Van Waterschoot van der Gracht medal to Prof. Dr. John A. Katili. Geologie en Mijnbouw 73, 1, p. 79-83.
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('Crusades over the deep sea basins of the Indies; one and a half years as geologist on board of H/M. Snellius')

Longley, I. & R. Pile (2011)- Tribute to Dick Murphy. Proc. 2011 SE Asia Petroleum Expl. Soc. (SEAPEX) Conference, Singapore, 41p. *(Abstract + Presentation)*
(The life of Richard W. Murphy (1929-2010), 'colorful' Esso geologist with a long history in SE Asia)

Lucarelli, B. (2010)- The history and future of Indonesia's coal industry: impact of politics and regulatory framework on industry structure and performance. Program on Energy and Sustainable Development (PESD) Stanford University, California, Working Paper 93, p. 1-87.
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(On advances in scientific understanding of continental shelf of Malaysia and nearby areas in last 50 years)

Manten, A.A. (1966)- In memoriam F.A. Vening Meinesz. Tectonophysics 3, 5, p. 369-373.
(online at: https://www.oalibrary.org/papers/view/0c6dc922-d7fb-49e8-870c-c0c5995d4175/)
(Memorial of Professor Felix Vening Meinesz (1887-1966), professor of Geodesy and Geophysics at University of Utrecht. Famous for pioneering marine gravity surveys, in particular his work in navy submarines in Indonesian region in 1930's. His discovery of narrow belt of unusually low negative gravity over trench/ accretionary prism around Sunda-Banda active volcanic arcs interpreted as zone of 'crustal downbuckling', and was early indication of the subduction process)

Mohler, W. (1980)- Dr. Werner Rothpletz 1903-1980. Bull. Vereinigung Schweiz. Petroleum-Geol. Ingen., 46, 111, p. 71-73.
(Obituary of Dr. Werner Rothpletz, geologist, who worked for BPM in Cepu and Birds Head/ New Guinea from 1933-1939 and for Geological Survey (Bandung) during Japanese occupation and from 1950-1960)

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(online at: https://www2.uibk.ac.at/downloads/oegg/Band_64_243_246.pdf)
(Obituary of Austrian geologist Rudolf Osberger (1924-1972). Worked as teaching assistant/ researcher at University of Indonesia (now ITB) in Bandung from 1952-1955, specializing in Tertiary corals. From 1955-1966 with Billiton tin company. Published several key papers in both fields)

Van der Linden, W.J.M. (1979)- Fixism, mobilism or relativism: Van Bemmelenĝs search for harmony. Geologie en Mijnbouw 58, 2, p. 99-100.
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(Preface to Van Bemmelen commemorarative volume))

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(online at: www.gsm.org.my/products/702001-101720-PDF.pdf)
(Early history of geological mapping in Sabah two periods, each finalized by attempt at synthesis: (1) earliest work of pioneer explorers (1880-1890s) summarized in T. Posewitz (1892) and now of historic interest only; (2) work by professional geologists (early 1900-late 1930s), synthesized by Reinhard and Wenk (1951))

Wannier, M.M.A. (2017)- ñGeology of the colony of North Borneoò (1951): The first fundamental publication on the geology of Sabah. Bull. Geol. Soc. Malaysia 64 (Geol. Soc. Malaysia 50th Anniversary Issue 2), p. 93-99.
(online at: www.gsm.org.my/products/702001-101715-PDF.pdf)
(Review of landmark publication by Reinhardt and Wenk (1951; Bull. No. 1 of 'Geological Survey Department of the British Territories in Borneo', based mainly on work for Shell before 1939. First to recognize Danau Fm of Molengraaff (1900) (in Sabah often called Chert-spilite Fm) as ophiolite suite)