Bryozoa Taxonomy and Palaeoecology in the Neogene of SE Asia

What happened to Cenozoic Bryozoans from Indonesia?

Emanuela Di Martino

Supervisor: Paul D. Taylor

Palaeontology Department NHM London

Contents

- Work accomplished in the field and some preliminary results
- Preliminary results coming from some NHM collections
- Future plans

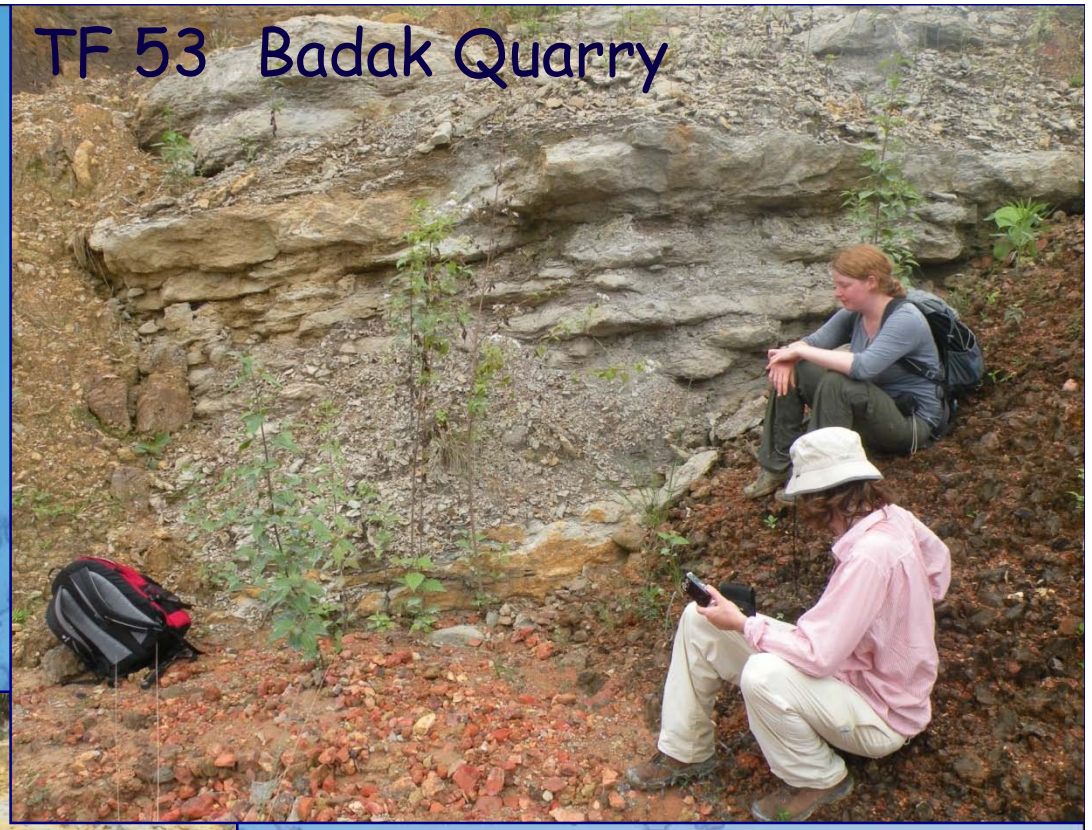
TF 51 Top Reef Stadion

Anascan and cribrimorph bryozoan colonies encrusting platy corals

Top Reef Stadion in Mine TF 57

Fragments of *Nellia* and *Steginoporella*

TF 53 Badak Quarry

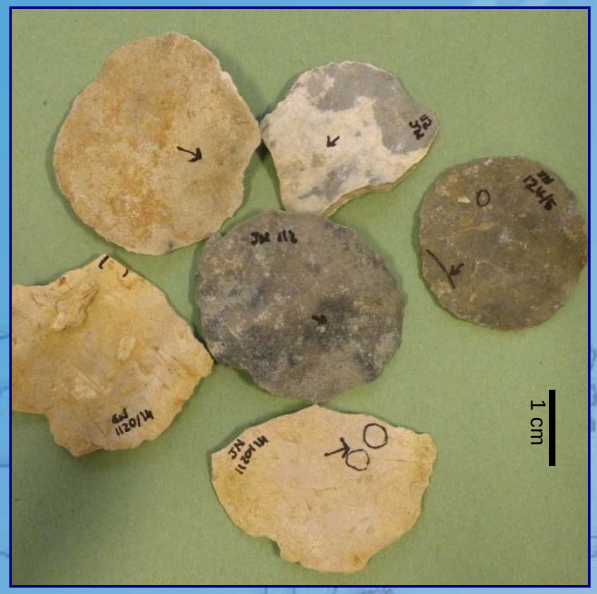


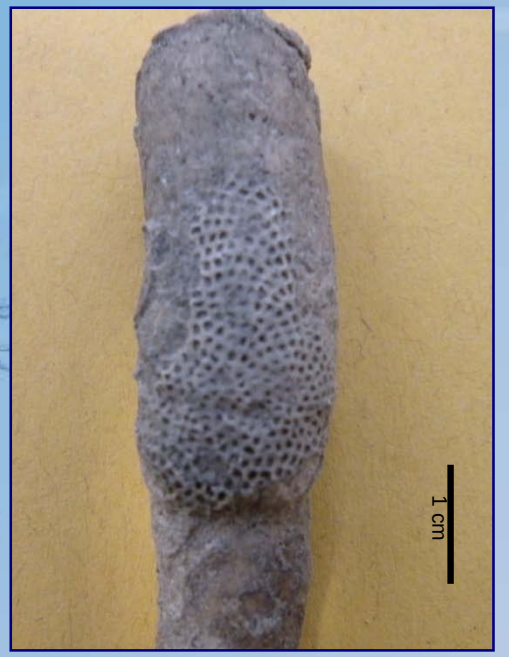
Batu Putih 1 TF 76

Fragments of *Reteporella*

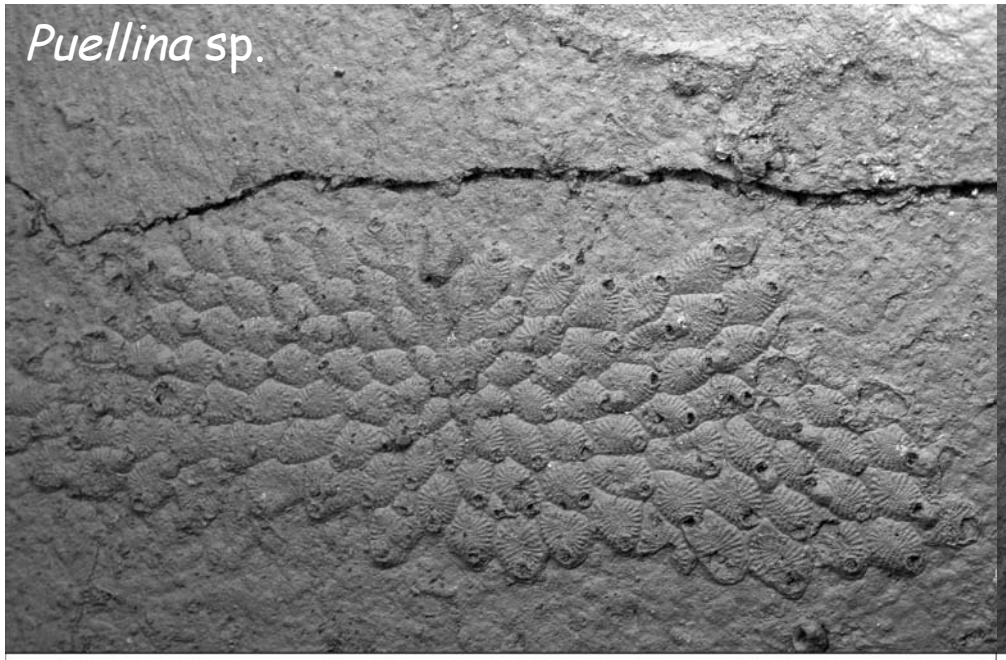
Jon Noed Collection

Late Oligocene Malaysian Borneo



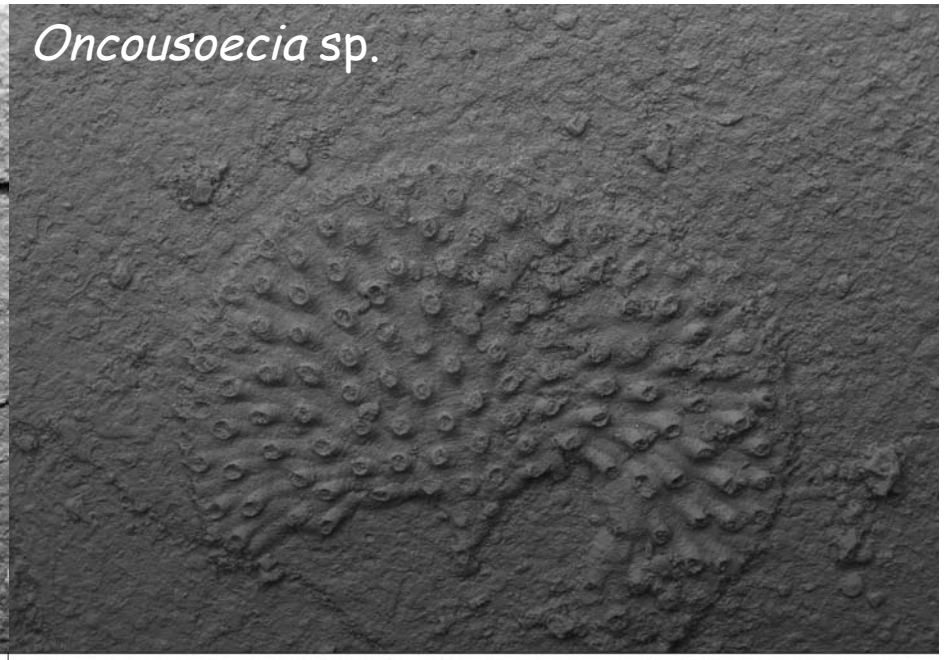


Puellina sp.



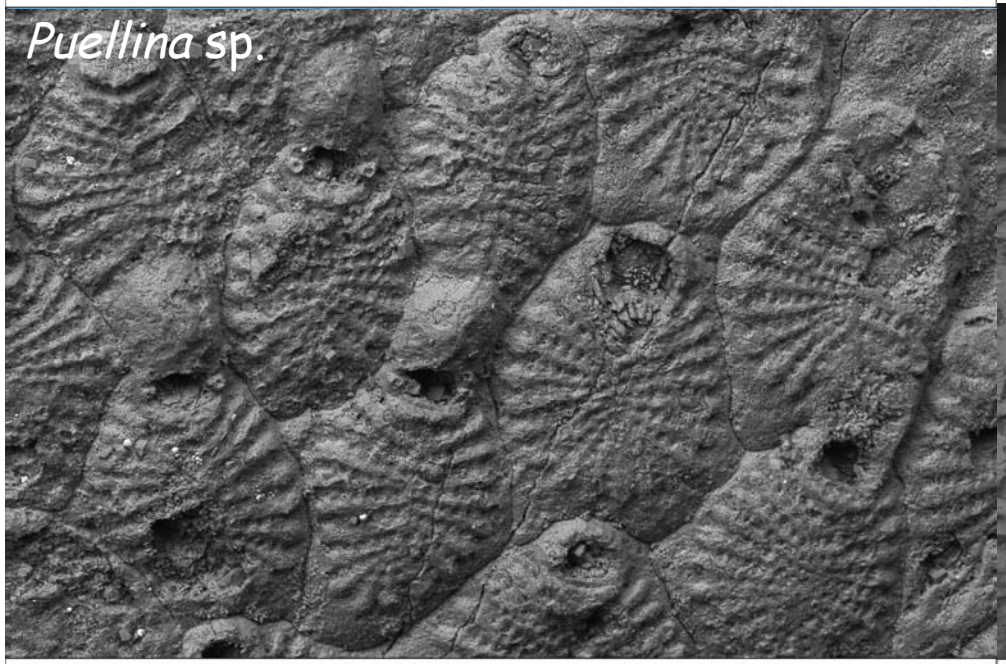
300µm* Mag = 62 X EHT = 20.00 kV Signal A = QBSD Chamber = 14 Pa
WD = 13 mm Spot Size = 500 File Name = edm0038.tif

Oncousoecia sp.



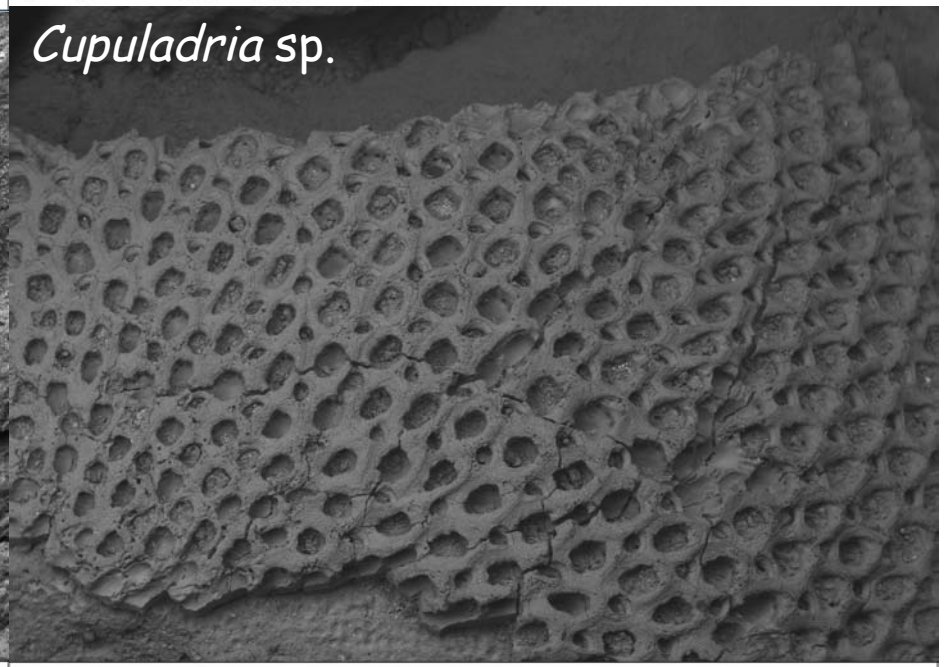
300µm* Mag = 64 X EHT = 20.00 kV Signal A = QBSD Chamber = 15 Pa
WD = 15 mm Spot Size = 500 File Name = edm0043.tif

Puellina sp.



100µm* Mag = 293 X EHT = 20.00 kV Signal A = QBSD Chamber = 14 Pa
WD = 13 mm Spot Size = 500 File Name = edm0042.tif

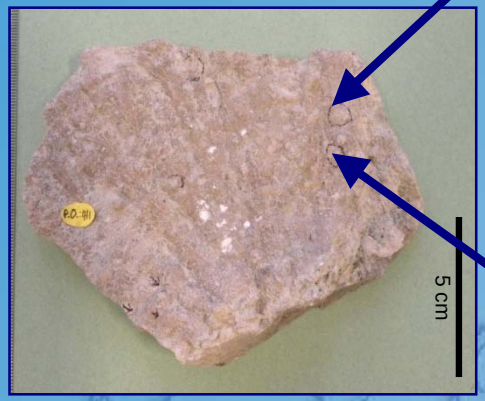
Cupuladria sp.

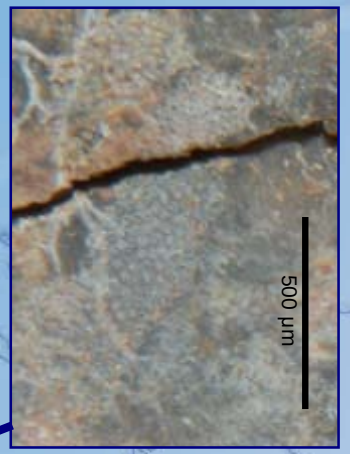


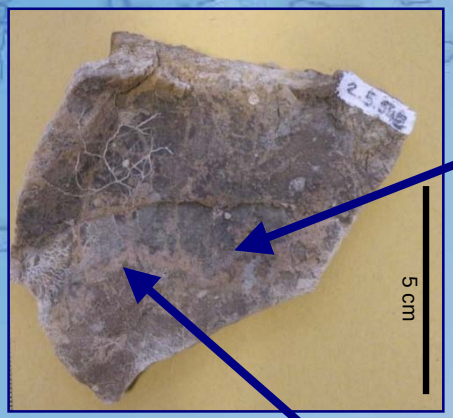
1mm* Mag = 49 X EHT = 20.00 kV Signal A = QBSD Chamber = 14 Pa
WD = 15 mm Spot Size = 500 File Name = edm0053.tif

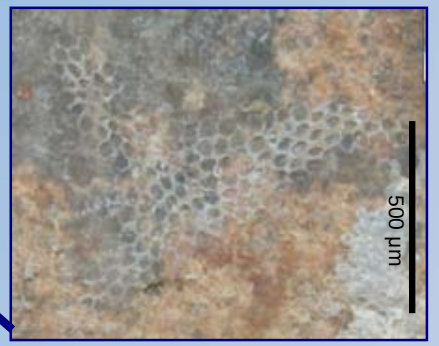
Laura B. McMonagle Collection

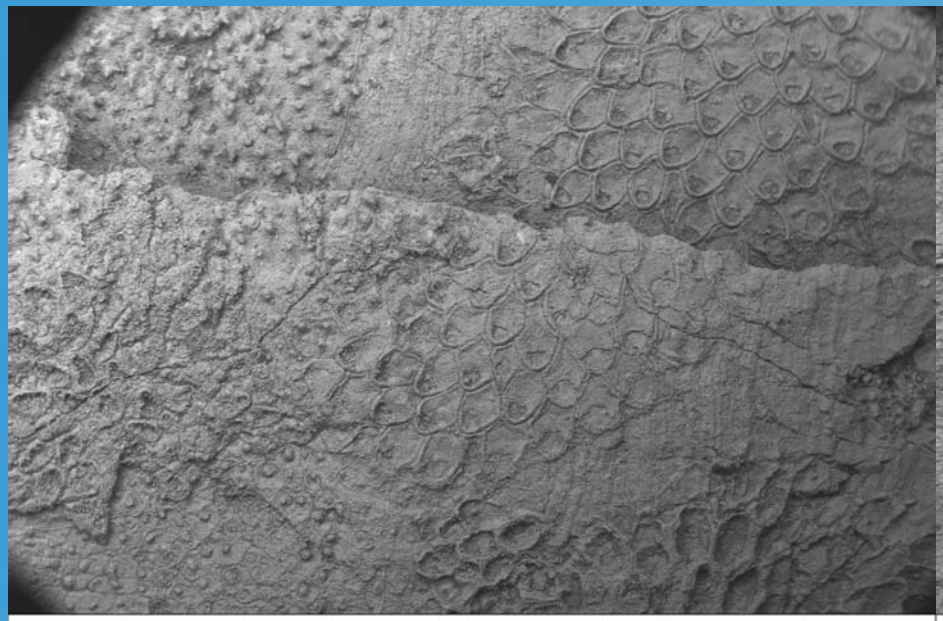
Late Oligocene Malaysian Borneo



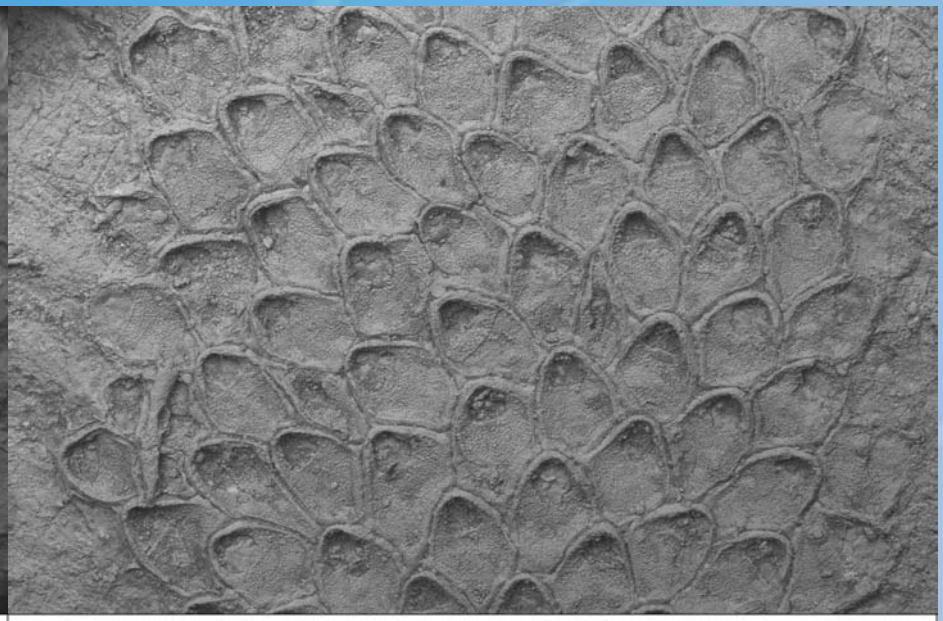








1mm* Mag = 55 X EHT = 20.00 kV Signal A = QBSD Chamber = 15 Pa
WD = 13 mm Spot Size = 500 File Name = edm00190.tif

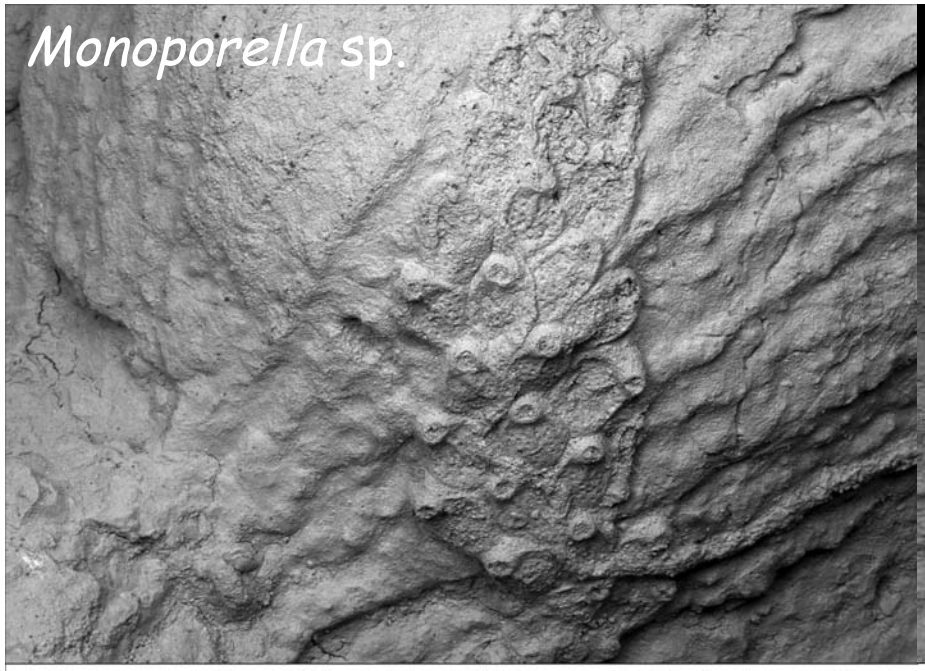


200µm* Mag = 100 X EHT = 20.00 kV Signal A = QBSD Chamber = 15 Pa
WD = 15 mm Spot Size = 500 File Name = edm00191.tif

Aechmella sp.

100µm* Mag = 250 X EHT = 20.00 kV Signal A = QBSD Chamber = 15 Pa
WD = 14 mm Spot Size = 500 File Name = edm00193.tif

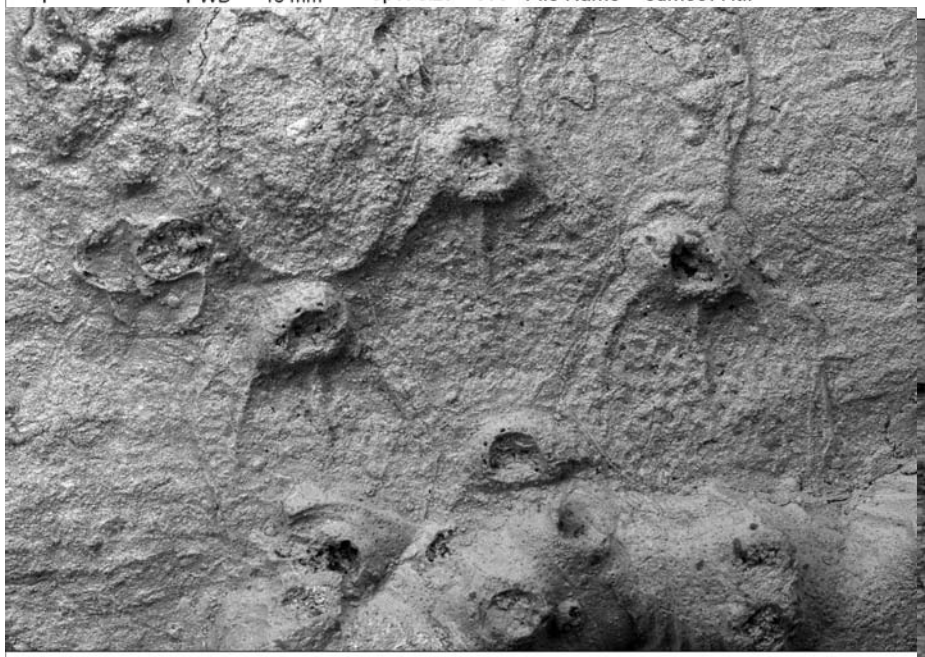
Monoporella sp.



1mm* Mag = 51 X EHT = 20.00 kV Signal A = QBSD Chamber = 14 Pa
WD = 18 mm Spot Size = 500 File Name = edm0077.tif

Schizoporella sp.

1mm* Mag = 46 X EHT = 20.00 kV Signal A = QBSD Chamber = 14 Pa
WD = 18 mm Spot Size = 500 File Name = edm0068.tif



300µm* Mag = 140 X EHT = 20.00 kV Signal A = QBSD Chamber = 24 Pa
WD = 13 mm Spot Size = 500 File Name = edm00178.tif

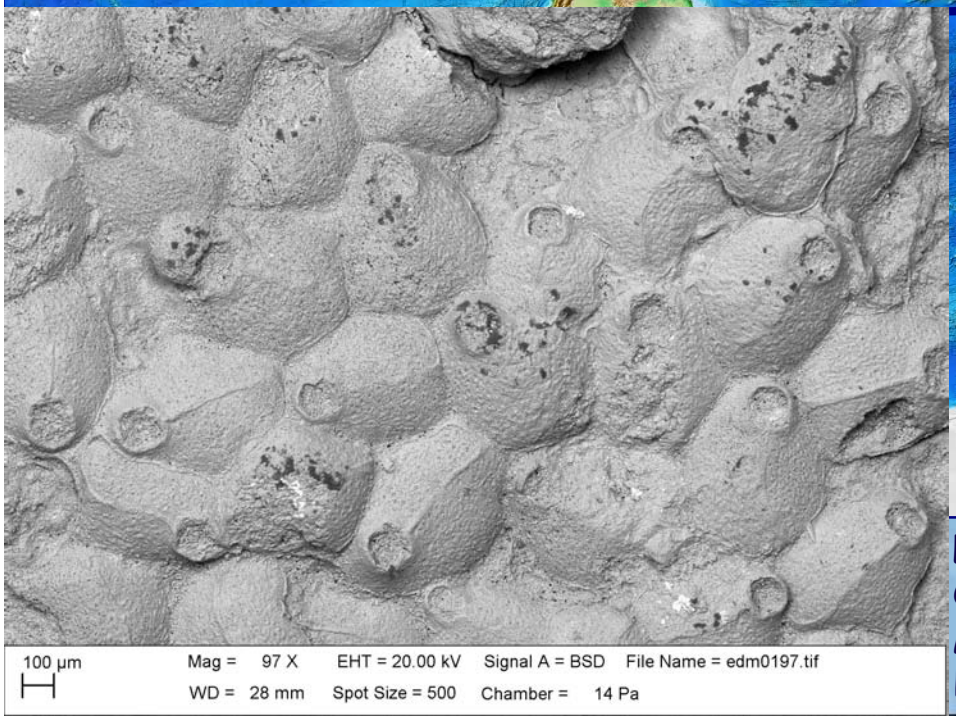
100µm* Mag = 212 X EHT = 20.00 kV Signal A = QBSD Chamber = 14 Pa
WD = 16 mm Spot Size = 500 File Name = edm0069.tif

Burdigalian - Bassin du Rhône, France

Messinian - Melilla, Morocco

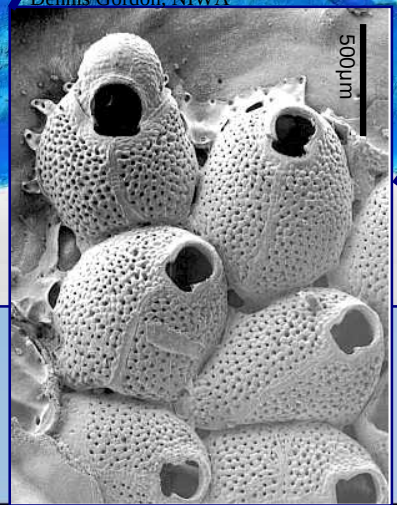
Retelepralia mosaica ?

K. El Hajjaji, 1992



Late Oligocene - Malaysian Borneo

Dennis Gordon, NIWA



Recent - Mauritius Islands, Central Great Barrier reef (Australia)

Age: Cenozoic

Locality: Indonesian Archipelago

Species	Age	Locality
Filisparsa sp.	Late Oligocene	Lombok
Exidmonea sp.	Late Oligocene	Lombok
Idmonea sp.	Lower Miocene	Malaysian Borneo
Crisia sp.	Lower - Middle Miocene	Malaysian Borneo, Madura
Lichenopora sp.	Middle Miocene	Madura
Nellia oculata	Miocene	East Java, Madura, Tanimbar
Nellia sp.	Late Oligocene	Lombok
Vincularia sp.	Miocene	East Borneo, East Java, Madura, Tanimbar
Canda sp.	Lower Miocene	Malaysian Borneo
Scrupocellaria sp.	Late Oligocene-M. Miocene	Lombok, Madura
Synnotum sp.	Lower Miocene	East Java, Madura
Poricellaria sp.	Middle Oligocene, Miocene	East Java, Madura, Tanimbar, M. Borneo
Steginoporella sp.	Middle Miocene	Madura
Thalamoporella sulawesiensis	Eocene	Sulawesi
Thalamoporella sp.	Middle Miocene	Madura
Chlidonia piriformis	Lower Miocene	East Java, Madura
Cellaria sp.	L. Miocene	Malaysian Borneo
Skylonia sarawakensis	Early Miocene	Malaysian Borneo
Skylonia thomasi thomasi	Middle Miocene	Malaysian Borneo, Madura
Skylonia thomasi madurensis	Middle Miocene	Madura
Crepis aff. *longipes*	Lower Miocene	East Java
Catenicella sp.	Miocene	East Java, Madura
Vasignyella cf. *otophora*	Middle Miocene	Madura
Savignyella sp.	Middle Miocene	Madura
Gemellipora sp.	Early Miocene	East Java, Madura
Pasythea sp.	Middle Miocene	Madura
Margaretta sp.	Lower-Middle Miocene	Malaysian Borneo, Madura
Reteporella sp.	Middle Miocene	Madura
Celleporidae sp.	Middle Miocene	Madura
Lacrimula asymmetrica	Miocene	W. Madura
Lacrimula grunaui	Miocene	E. Madura
Lacrimula similis	Miocene	W. Madura
Conescharellina sp.	Miocene	E. Madura

21 genera reported in previous publications

Species
Oncousoeciidae sp.
Annectocyma sp.
Crisia sp.
Lichenoporidae sp.
Calloporidae sp.
Nellia sp.
Cupuladria sp.
Aechmella sp.
Monoporella sp.
Puellina spp.
Chorizopora sp.
Trypostega sp.
Schizoporella cf. *geminipora*
Thalamoporella sp.
Margaretta sp.
Retelepralia cf. *mosaica*
Reteporella sp.
Celleporidae sp.
Conescharellina sp.

Age: Late Oligocene

Locality: Malaysian Borneo

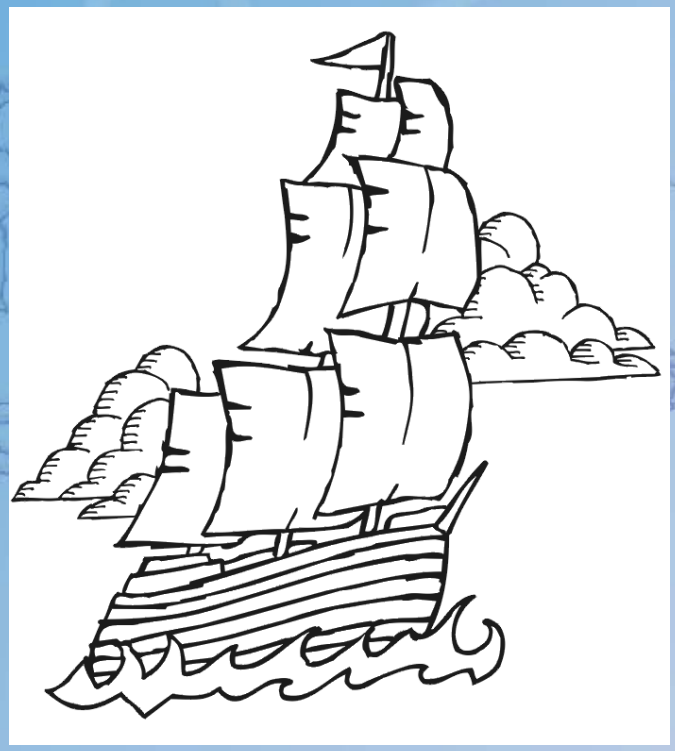
19 genera

8 already cited in the literature

11 first records

Future Plans

- Process collected samples



…waiting for…

Future Plans

- Integrate data coming from new samples with those from fossil material present in the collections of NHM in London
- Examine material present in the National Natuurhistorisch Museum Naturalis in Leiden
- Participation in the 10th Larwood Meeting of International Bryozoology Association on 5-7 March 2011 in Santiago de Compostela to present the project