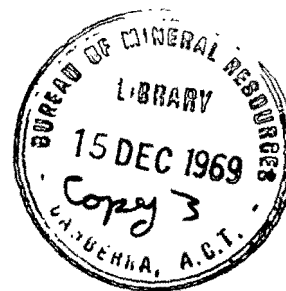


1951/2



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MICROPALAEONTOLOGICAL EXAMINATION OF LIMESTONE
SAMPLES FROM RIGO DISTRICT, PAPUA.

Records No. 1951/2

The samples of limestone were collected by A.K.W. Edwards during a geological survey of the Rigo area. One sample is of Upper Cretaceous age and the others of Lower Middle Miocene age.

Detailed Description of Limestones

1. Kwikila Limestone near Gidobada

- A. Cream crystalline limestone with calcareous algae, foraminifera (Miogypsina common) and fragments of indeterminate coral.

Plantae:

Lithophyllum parvicellum Johnson and Ferris.
Lithoporella (Melobesia) melobesioides Foslie

Foraminifera:

Amohistegina sp.
Carpenteria cf. proteiformis Goes
Elphidium sp.
Lepidocyclina (Nephrolepidina) cf. verbeeki (Newton & Holland)
Lepidocyclina sp.
Miogypsina cushmani Tan var. indonesiensis Tan
Miogypsina excentrica Tan
Operculina sp.

- B. Yellowish brown crystalline limestone with calcareous algae foraminifera (Lepidocyclina), fragments of coral and echinoid spines.

Plantae:

Lithophyllum parvicellum Johnson and Ferris
Lithoporella (Melobesia) melobesioides Foslie

Foraminifera:

Amphistegina sp.
Anomalina sp.
Cycloclypeus indopacificus Tan
Lepidocyclina (Nephrolepidina) borneensis Provale
Lepidocyclina (Nephrolepidina) dehiscens Scheffen
Lepidocyclina (Nephrolepidina) ferrerol Provale
Lepidocyclina (Nephrolepidina) sumatrensis (Brady)
Lepidocyclina (Nephrolepidina) verbeeki (Newton and Holland)
Lepidocyclina (Trybliolepidina) martini (Schlumberger)
Miogypsina excentrica Tan
Miogypsina cf. musperi Tan
Miogypsina polymorpha Rutten
Operculina cf. victoriensis Chapman and Parr
Planorbulina mediterraneensis d'Orb.

- C. Yellowish crystalline limestone with calcareous algae and foraminifera (Lepidocyclina).

Plantae:

Lithophyllum parvicellum Johnson and Ferris
Lithoporella (Melopesia) melobesioides Fossie

Foraminifera:

Cycloclypeus indopacificus Tan
Globigerina bulloides d'Orb.
Globigerina spp.
Cyosina globulus Reuss
Lepidocyclina (Nephrolepidina) borneensis Provale
Lepidocyclina (Nephrolepidina) sumatrensis (Brady)
Lepidocyclina (Tryblilepidina) martini (Schlumberger)
Lepidocyclina sp.
Miogyosina polymorpha Rutton
Operculina cf. victoriensis Chapman and Parr.

Note on the Samples

Samples A and B were received for examination on 18/12/50 and sample C on 23/10/50. Sample C is similar to Sample B. The limestones occur as reef masses in the basal portion of the Astrolabe agglomerate equivalents near the village of Gidobada, and lie unconformably on Gabbro.

The three samples are lower Middle Miocene in age and equivalent to "f stage" of East Indian Tertiary stratigraphy. Sample A is a Miogyosina limestone in which tests of Miogyosina are very common. This genus is characteristic of the lower part of the Middle Miocene.

Samples B and C contain numerous tests of species of Lepidocyclina, belonging chiefly to the subgenus Nephrolepidina, which is characteristic of the lower part of the Middle Miocene. Another typically Middle Miocene species is Cycloclypeus indopacificus

2. Pandora near Rigo

- D. Pink, cherty limestone containing abundant small foraminifera.

Foraminifera:

Globigerina cretacea d'Orb.
Globigerina spp.
Globotruncana cf. canaliculata (Reuss)
Globotruncana cf. conica White
Guembelina globulosa (Shrenberg)
Guembelina sp.
Rectoguembelina cf. cretacea Cushman.

This rock is Upper Cretaceous in age and most probably equivalent of the Senonian Stage of Europe. Globigerina cretacea and other indeterminate species of the genus are common and several tests of the characteristic Upper Cretaceous genus Globotruncana are also present. Guembelina is common but it is difficult to determinate individual species because of the directions in which sections of the tests have been cut. This limestone was found as inclusions in the Gabbro at Pandora.

D. Cushman