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COMMONWEALTH OF AUSTRALIA.



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DEPARTMENT OF NATIONAL DEVELOPMENT.  
BUREAU OF MINERAL RESOURCES  
GEOLOGY AND GEOPHYSICS.

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RECORDS.

1956/117

FURTHER COLLECTION OF FOSSILIFEROUS ROCKS FROM  
THE CENTRAL HIGHLANDS, NEW GUINEA

by

Irene Crespín and D.J. Belford

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Two collections of fossiliferous rocks from the Central Highlands of New Guinea were recently received from N. J. McMillan. The first collection from the Watabung-Asaro area was forwarded on September 24th and the second from the Daulo-Asaro area on October 3rd.

Collection A - Watabung-Asaro Area

1. Watabung Area.

M47a. Cobble from 10' thick conglomerate separating two belts of volcanics.

Foraminiferal limestone with included fragments of radiolarian rocks.

Calcareous algae: Lithothamnium sp.

Foraminifera: Actinocyclus cf. aster  
Borelis sp.  
Carpehtaria sp.  
Discoeyclus cf. dispana  
Discoeyclus sp.  
Nummulites sp.

This rock contains foraminifera characteristic of "a-b" stage (Middle to Upper Eocene).

M50b. North of Kenangi.

Dark grey fossiliferous shale with indeterminate plant remains, poorly preserved foraminifera (Operculinella cf. venosa, Lepidocyclus sp. (derived) and poorly preserved fragments of pelecypoda.

The foraminifera are very poorly preserved and a definite age determination is difficult. It is Miocene in age and most probably upper "f" stage.

M50d. North of Kenangi, cobble in conglomerate.

Crystalline Limestone with fragments of calcareous algae and tests of foraminifera almost completely altered.

Austrotrillina howchini  
Lepidocyclus (?Nephrolepidina) sp.  
? Micropora

This rock is probably from the upper part of the Lower Miocene (f<sub>1</sub>-f<sub>2</sub> stage).

M51a. Locality close to M50d, cobble from conglomerate.

Crystalline limestone with abundant poorly preserved fronds of calcareous algae.

No evidence of the age of this rock is available.

M51b. Massive limestone, N.E. of Kenangi, underlying volcanic belt.

Dense crystalline limestone composed almost entirely of planktonic foraminifera (Globigerina, Globorotalia).

This rock is most probably Eocene in age.

M53a. Marifutica River, about 1 mile upstream from Kenangi.

Silty sandstone with abundant tests of Operculinella venosa.

This rock is identical in lithology and microfaunal content with samples J67a and J68a from Chauve road and Watabung respectively reported upon (Records 1956/100). The age is most probably Upper Miocene.

M55a. N. W. of Watabung.

Dark grey shale containing a few foraminifera which are so poorly preserved that they cannot be identified; consequently it is impossible to give an age for the beds.

2. Asaro Area.

M59a. Between Daule and Asaro, S. of Chimbu-Goroka Road.

Dark grey limestone with abundant tests of Globigerina, and also tests of Lepidocyclina cf. verbeeki and Spiroclypeus cf. margaritatus.

This rock is referred to "e" stage (Lower Miocene). This rock type has not been met with before in this area.

M61a. Near Searson Plantation, 2 miles W. of Asaro.

Fragmental foraminiferal limestone.

Lepidocyclina cf. sumatrensis var. inornata  
Lepidocyclina (Eulepidina) cf. insulaenatalis  
Neosvalvulina pygmaea  
Spiroclypeus margaritatus

This limestone is Lower Miocene ("e" stage in age). Typical "e" stage foraminifera, Eulepidina and Spiroclypeus are common.

M63a. Outcrop at Asaro River Crossing of Chimbu-Goroka Road.

Crystalline limestone with large foraminifera (Nummulites intermedius-fichteli, Cycloclypeus sp. and other indeterminate forms).

This rock is Lower Oligocene ("c" stage) in age. The reticulate Nummulites (N. intermedius-fichteli) is characteristic of rocks of this age in the Indo-Pacific region. Limestones containing this form were collected by Dr. Fisher from the Chimbu Limestone horizon in the Chimbu

Gorge (Nos. 2 and 87) and were reported upon by one of us (I.C.) on 6/6/40.

Collection B - Daulo-Asaro Area

2M13a. Between the Lookout and Daulo.

Shale with indeterminate arenaceous foraminifera.

No age can be suggested for this rock.

2M15b. About 1 mile east of Daulo.

Sandy shale with poorly preserved foraminifera (Lepidocyclina sp. Operculinella venosa).

This rock is most probably Middle Miocene ("f<sub>2</sub>" stage) in age.

2M16c. Just west of The Lookout.

Very fine-grained silicified limestone containing foraminifera (Globigerina spp. Gumbelina sp.), radiolaria (Genosphaera sp., Dictyonitra sp.) and sponge spicules.

This rock is Eocene in age. A similar rock type is prominent in the Port Moresby area.

2M16d. Between The Lookout and Asaro.

Dark grey unfossiliferous shale.

No evidence is available to indicate age of this specimen.

2M18b. Boulder in small stream between Asaro and The Lookout.

Crushed Globigerina limestone, in which all tests are distorted. Age uncertain.

M60b. 1 mile south of The Lookout.

This sample was not examined as the paper wrapping had broken open and the material scattered through the bag containing the other samples.

M62a. Section near Searson Plantation.

Dark grey shale containing indeterminate foraminifera.

The rock is similar to M55a, the age of which is uncertain.

2J53d. 1 mile west of Searson Plantation.

Crystalline limestone with calcareous algae, foraminifera and some pyrite.

Amphistegina sp.  
Lepidocyclina (Eulepidina) sp.  
Lepidocyclina cf. sumatrensis var. inornata  
Lepidocyclina cf. verrucosa  
Operculina sp.

The foraminifera in this rock are fragmentary

but the presence of Eulepidina suggests that it is probably Lower Miocene.

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An additional sample was received from N.J. McMillan on 31/10/56, from east of Bena Bena.

2M43b.

Dark grey calcareous sandstone with foraminifera, Globigerina being especially common.

Anomalina sp.  
Globigerina bulloides  
Globigerina spp.  
Globigerinoides trilobus  
Nodosaria sp.  
Spiroclypeus margaritatus

This rock which contains Spiroclypeus is considered to be Lower Miocene ("e" stage) in age.