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MICROPALAEONTOLOGICAL EXAMINATION OF ROCK
SAMPLES FROM THE NIGO-NIGO RIVER AREA
(MULLINS HARBOUR - WEDAU RECONNAISSANCE)
SOUTH EASTERN PAPUA.

by

F. M. Kicinski.

MICROPALAEONTOLOGICAL EXAMINATION OF ROCK
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During the Mullins Harbour - Wedau Reconnaissance (South Eastern Papua) carried in 1953 by Mr. J.E. Thompson, Senior Geologist of the Bureau of Mineral Resources, a section was sampled along the Middle Nigo-Nigo River. Of a number of samples sent to Canberra for petrological and palaeontological examination only eight proved fossiliferous.

The following is a list of samples examined listing lithology and microfauna determined by the author and the age assigned to each:

Reg.No.	Field No.
6528	1 MHW - Globigerina limestone- <u>Globigerina conglobata</u> (a), <u>Globigerina</u> sp., <u>Eorupertia</u> sp. (v).-Eocene
6531	4 MHW - Brecciated and veined Globigerina limestone - <u>Globigerina conglobata</u> (a), G. sp. - ? Eocene.
6532	5 MHW - Glauc ⁷ auconitic sandstone. <u>Globigerina</u> sp. (f), <u>Textularia</u> sp. (v), <u>Globorotalia</u> sp. (r). ? Eocene.
6533	6 MHW - Glaucconitic limestone. <u>Globigerina</u> sp. (a), <u>Globo-</u> <u>rotalia</u> sp. (r). ?Eocene.
6534	7 MHW - Fine grained Globigerina limestone. <u>Globigerina</u> spp (a), <u>Eponides</u> sp. (r), <u>Gumbelina globulosa</u> (f), <u>Glo-</u> <u>borotalia</u> sp. (r). Senonian.
6535	8 MHW - Fine grained limestone. <u>Gumbelina globulosa</u> (a), <u>Globigerina</u> sp. (f). Senonian.
6539	12 MHW - Recrystallised limestone. <u>Globigerina conglobata</u> , (a) <u>Globorotalia</u> sp. (r). ?Eocene.
6540	13 MHW - Brecciated limestone. <u>Globigerina conglobata</u> (d) G.sp. (r), <u>Nummulites</u> sp. (v). Eocene

Correlation.

The two types of assemblages determined in the examined samples are referred to previously described faunas from Port Moresby Area.

Samples 7MHW & 8 contain minute Globigerina sp. and distinctive Gumbelina globulosa (Ehrenberg). The latter species is characteristic of the Bogoro Limestones of Port Moresby area, containing also Globotruncana arca, G. stuarti and G. conica indicating Upper Senonian age of this formation. (2).

The rest of the examined samples had present in all of them frequent to abundant thick shelled Globigerina conglobata associated in sample 1 MHW with Eorupertia sp. and in sample 13 MHW with Nummulites sp.

This fauna corresponds to that of Port Moresby Group in its "Eastern Area" facies. (2). Limestones with similar fauna interbedded with Discocyclina and nummulitic limestones are places at the base of the Port Moresby Group by Glaessner and assigned to the Upper Eocene. Globigerina conglobata associated with Nummulites bagelensis and Discocyclina was determined by Chapman in a number of limestones collected in the Laloki - Bootless Inlet Area (1).

References:

- (1) J.N. Montgomery - A contribution to the Tertiary Geology of Papua. The Exploration work in Papua and New Guinea. A.P.O.C. Vol. IV. 1930.

References: (Cont'd)

- (2) M.F. Glaessner - Geology of Port Moresby, Papua.
Sir Douglas Mawson Anniv. Vol. Adelaide 1952.

Abbreviations:

- (a) abundant
(f) frequent
(r) rare
(v) very rare.