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PRELIMINARY NOTE ON THE MICROPALAEONTOLOGY OF SAMPLES  
FROM HBR. WRECK ISLAND NO.1 BORE, NEAR GLADSTONE, QUEENSLAND

by

Irene Crespín



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Cores 4 to 11 (600 feet down to 1610 feet) and cuttings from 550 feet down to 1750 feet from Wreck Island No.1 Bore, have been examined for microfossils. This examination has proved nearly 800 feet of marine Miocene sediments.

A tentative determination of the stratigraphical sequence in the bore is as follows:

Upper Pliocene or younger	- 550-625 feet (including cores 4 and 5)
Lower Pliocene	- 800-850 feet (core 6)
Middle to Upper Miocene	- 962-1050 feet (including core 7)
Lower Miocene	- 1150-1750 feet (including cores 8, 9, 10, 11).
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? Basement	- 1800-1898 feet (cores 12,13,14).

The cream calcarenite of core 8 at 1175-1187 feet and cuttings at 1150 feet contained a rich assemblage of larger foraminifera including the genera Cycloclypeus, Miogypsina and Lepidocyclina. This assemblage contains species which are characteristic of the Lower Miocene elsewhere in the Indo-Pacific region. No recognisable fossils were present in cores 9 and 10. The grey glauconitic sandstone of core 11 at 1600-1610 feet and of cuttings at 1550 feet, contained glauconitic replacements of numerous large and small tests of Lepidocyclina and Operculina, many of the tests showing evidence of abrasion.

The cuttings of sandstone at 1750 feet contained numerous well-preserved specimens of a large species of Elphidium, probably new but closely related to a form described from the Miocene of the Kuban River area, Russia, namely Elphidium reginum var. caucasicum.

This discovery of marine Miocene sediments in the Wreck Island Bore, is of considerable importance in Indo-Pacific Tertiary stratigraphy. No such deposits have previously been recorded from surface outcrop or subsurface section in the eastern coastal area of Australia. Lepidocyclina-Miogypsina-bearing sediments occur to the north of Wreck Island in south-eastern Papua. To the south of the area, the nearest known Lepidocyclina-bearing rocks are to be found in south-east Gippsland, Victoria. Rocks containing Lepidocyclina and Miogypsina are well developed to the east in the New Hebrides. It is probable that a greater thickness of Miocene and even lower Tertiary beds may exist in subsurface deposits immediately east of Wreck Island.