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FOSSILIFEROUS ROCKS FROM THE CLONCURRY DISTRICT

QUEENSLAND

by

I. Crespin and J. M. Dickins

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Fossiliferous rocks were collected in June, 1953, by R. A. Searl and party from two localities in the Cloncurry District. One sample (Field No. 4746) came from Soldiers Cap, 25 miles southeast of Cloncurry and the second one (Field No. 5071) from a locality approximately 10 miles south of Soldiers Cap on the Duchess, 4-mile sheet, Run 4, Serial Photo 5010, Point 10. This palaeontological examination proves, for the first time, as far as is known, rocks of Lower Cretaceous age in the Cloncurry area.

1. The rock from Soldiers Cap consists of a hard, yellow to white, micaceous, coarse-grained siltstone and fine grained sandstone with molluscan shell remains.

A micropalaeontological examination of a thin section of the rock reveals the presence of arenaceous foraminifera. Some tests can only be identified generically whilst others are too poorly preserved for even generic determination. The two forms identified (Registered No. MF.3196) are:

Bigenerina sp.
Ammobaculites sp.

The species of Bigenerina closely resembles B. loeblichii Crespin 1953, a form common in the Lower Cretaceous rocks of the Roma area, Queensland, but specific determination of arenaceous foraminifera from thin sections is unsatisfactory. The rock in thin section is similar in lithology to many samples examined from Northern Territory and western Queensland in which radiolaria as well as foraminifera have been found and which are regarded as Lower Cretaceous in age.

The macrofossils consist only of impressions and cast of pelecypoda. No hinges are available so that identification has to be based solely on the shape, which, in some cases, is not sufficient for definite identification of shells of this type. Two forms can be identified as follows:

a. Corbicula? cf. Corbicula? meeki Etheridge Junr. 1892 (2 bivalved specimens; Registered No. F.21551).

These specimens can be reliably compared with the shell figured by Etheridge Junr. (1892, pl. 27, fig. 2) from Walsh River, Queensland. As was the case with Etheridge's determination of Corbicula? meeki the present ones can only be assigned with doubt to the genus Corbicula Muhfeldt 1811, because no hinge structure is available for examination.

b. Tatella? sp. nov. (2 bivalved specimens; Registered No. F.21550).

The generic identification of this form is also difficult. It appears to be most closely related to members of the genus Tatella Etheridge Junr. 1901, but it differs considerably from Tatella maranoana (Etheridge Junr.) 1892, the genotype Tatella, by the greater concavity of the anterior part of the dorsal margin in front of the umbo. The present shells do not seem to belong to any described species.

These pelecypod shells indicate that the deposit at Soldiers Cap are of Mesozoic age and are marine or brackish water.

in origin. The fossil evidence also tentatively indicates that the deposits are of Lower Cretaceous age as the species with which the present forms are compared have been found in formations considered to be of that age. (Etheridge Junr, 1892, 1901, 1902; Whitehouse, 1925).

2. The specimen from Duchess Run 4, Photo 5010, Point 10, is a hard, pinkish, fine-grained siltstone, which has been examined for microfossils. A few microfossils have been recognised, including radiolaria (Genosphaera sp.) and foraminifera (cf. Dentalina (Registered No. MF.3197). The lithology of this rock is typical of the radiolarian siltstones which cap the mesas in Northern Territory and western Queensland and which are considered to belong to the upper part of the Lower Cretaceous.

References

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