DEPARTMENT OF NATIONAL DEVELOPMENT.

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RECORDS.

1955/15

MICROFOSSILS FROM THE SOUTHERN PORTION OF THE CANNING BASIN, WESTERN AUSTRALIA

by

I. Crespin

IC:MJM. 151W/3

Microfossils from the Southern Portion of the Canning Basin, Western Australia

by

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Record 1955/15

During the 1954 field season, J. N. Casey and D. M. Traves collected rocks samples from the southern portion of the Canning Basin, Northwest Australia, with the hope that microfossils may be present to assist in the determination of age of these beds. Permian foraminifera were found in a sample from Lake Dora and Lower Cretaceous foraminifera in a sample from a locality on the Anketell 4 mile sheet. Foraminifera have not previously been found in this part of the Canning Basin. Ammodiscus nitidus was recorded in material collected by Dr. Reeves from the cliffs of Scott's Bluff on the eastern edge of Lake Blanche in 1949.

Samples of hard white sandy siltstone were examined in thin section from Patterson Range, Table Top and Yarrie 4 mile sheets for radiolaria. Rounded bodies were present; these could only be referred doubtfully to radiolaria.

The foraminifera which have been identified in the two samples mentioned above are given below.

Northern end of Lake Dora - Dora Shale

2 inches below the base of the salt crust (Registered No. M MF.948)

Purplish, micaceous sandy shale with arenaceous foraminifera.

Foraminifera

Ammodiscus nitidus Parr (f)
Ammobaculites cf. woolnoughi Crespin and Parr (r)
Hyperamminoides acicula Parr (f)
Hyperamminoides cf. expansus Plummer

This assemblage of Permian species of arenaceous foraminifera is characteristic of the beds in the Wandagee horizon of the Carnarvon Basin and of the Noončanbah horizon of the Kimberley area. Hyperamminoides acicula is very common in the ferruginous rocks of both Basins and as it can usually be seen in hand specimen, it is a useful species for the determination of a Permian age.

Anketell 4 miles sheet, Photo Run 5/5026

A.9 - Rhizocorallum Sandstone (Registered No. MF.972)

Purplish-red and white micaceous sandstone with numerous arenaceous foraminifera. Many tests are fragmentary and could not be determined specifically.

Foraminifera

Ammobaculites fisheri Crespin (r)
Ammobaculites minuta Crespin (f)
Ammobaculoides romaensis Crespin (f)
Reophax sp. (f)
Spiroplectammina cushmani Crespin (c)
Spiroplectammina edgelli Crespin (c)
Trochammina cf. minuta Crespin (f)
cf. Trochammina

This assemblage of arenaceous foraminifera is typical of that found in the Lower Cretaceous deposits of the Great Artesian Basin. The species occur in the deposits around Roma and in many bores in the Great Artesian Basin of northern New South Wales, South Australia and Western Queensland. Such an assemblage of arenaceous genera suggests a brackish water environment.