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by

Irene Crespin

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1956/30

SUMMARY OF ACTIVITIES OF RESIDENT GEOLOGISTS IN THE NORTHERN TERRITORY FOR 1955

by

N.J. MacKay

CANBERRA.

March, 1956.

MICROPALAEONTOLOGICAL EXAMINATION OF SAMPLES FROM CAPE YORK PENINSULA, NORTHERN QUEENSLAND

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Records No. 1956/1.

Nineteen samples from localities in Cape York Peninsula, Northern Queensland were submitted for micropalaeontological examination by Frome-Broken Hill Pty. Ltd. Microfossils of Lower Cretaceous age were present in eight of these samples, which are described in detail below.

No.1. Elizabeth Creek, 3.3 miles from Walsh Telegraph Office on road to Wrotham Park. ✓ EG-4

Grey, sandy siltstone with glauconite grains, numerous tests of arenaceous and calcareous foraminifera, and a few radiolaria and ostracoda.

Foraminifera

(a) Arenaceous

Ammodiscus cretaceous (Reuss)
Ammomarginulina sp.
Ammobaculites fisheri Crespin
Ammobaculites minimus Crespin
Arenobulimina cf. preslii (Reuss)
Haplophragmoides cf. dickinsoni Crespin
Pelosina lageneides Crespin
Trochammina minuta Crespin
Textularia cf. annacooraensis Crespin

(b) Calcareous

Anomalina mawsoni Crespin
Lagena apiculata (Reuss) var. phialaeformis Crespin
Lagena cf. hispida Reuss
Lenticulina cf. australiensis Crespin
Robulus gunderbookaensis (Crespin)
Robulus warregoensis (Crespin)
Marginulinopsis australe Crespin
Saracenaria callitoecha Loeblich and Tappan
Saracenaria sp.
Valvulineria infracretacea Crespin

Radiolaria

Dictyomitra sp.
Porodiscus sp.

Ostracoda

cf. Cytheropteron concentricum (Reuss)

The foraminiferal assemblage in this sample is typical of that found in the Lower Cretaceous deposits of the Great Artesian Basin and is equivalent of the Aptian Stage of Europe. The calcareous forms are represented by many tests of the Lagenidae and small Rotaliidae. Two well preserved tests of Saracenaria callitoecha described from the Duck Creek Formation of the Lower Cretaceous of Texas are present. Tests of Anomalina mawsoni are fairly numerous and it is suggested that the horizon is equivalent to that referred to as the zone of Anomalina mawsoni by the writer in a paper on the "Distribution of Lower Cretaceous Foraminifera in the bores of Northern New South Wales" now in the press.

No.2. Batavia Downs Station Well.

Dark grey siltstone with pyrites, numerous foraminifera (many calcareous tests as casts) and a few ostracoda.

Foraminifera

(a) Arenaceous

Ammodiscus cretaceus (Reuss)
Ammobaculites fisheri Crespin
Ammobaculites minimus Crespin
Bigenerina loeblichi Crespin
Haplophragmoides chapmani Crespin
Haplophragmoides cf. globosa Lozo
Pelosina lagenoides Crespin
Spiroplectammina edgelli Crespin
Trochammina sp.
Verneuilina howchini Crespin

(b) Calcareous

Epistomina australiensis Crespin
Globigerina washitensis Carsey
Guttulina sp.
Lagena sp.
Lenticulina australiensis Crespin
Lenticulina spp.
Marginulina cf. tenuissima Reuss
Marginulina cf. stratifera Reuss
Nodosaria rigentia Loeblich and Tappan
Nodosaria sp. (striate)
Pseudoglandulina cf. mutabilis (Reuss)
Saracenaria callitoecha Loeblich and Tappan
Tristix sp.1
Tristix sp.2
Valvulineria infracretacea Crespin

Ostracoda

Cytheropteron concentricum Reuss

This sample contains an excellent assemblage of Lower Cretaceous (Aptian) foraminifera and it shows a close resemblance to that described by Loeblich and Tappan from the Duck Creek Formation of Texas. Forms resembling the Duck Creek fauna include Globigerina washitensis, Nodosaria rigentia, Marginulina cf. tenuissima, Pseudoglandulina cf. mutabilis and Saracenaria callitoecha. Furthermore there are two species of Tristix. Tristix sp.1 is close to T.tricarinatum (Reuss) while Tristix sp.2 is very similar to a species figured by Loeblich and Tappan as T.tricarinatum acutangulatum (Reuss), but which does not seem to be identical with the type figure of that form.

As with Sample No.1, the assemblage in Sample No.2 is equivalent to that found in the zone of Anomalina mawsoni.

No.5. 30 miles from Coen on road to Rokeby Station

Cream siltstone. A thin section of this rock contained a few tests of radiolaria (Cenosphaera sp.). This rock is considered to be stratigraphically higher than those containing the rich foraminiferal fauna. At Mt. Bassett near Roma, Queensland, cream siltstone with radiolaria occurs immediately overlying the foraminifera-bearing rocks and a similar sequence is found in parts of the Northern Territory.

No.7. 4.9 miles from Strathbourne Station on road towards Holroyd River

Cream sandy siltstone with a few arenaceous foraminifera.

The majority of foraminifera are encrusted and crushed and it has only been possible to determine Haplophragmoides chapmani Crespin. The apparent absence of calcareous foraminifera in this sample suggests that the horizon is stratigraphically higher than that shown in samples Nos. 1 and 2.

No.14. 28.7 miles along the road to Catfish Point from the road to Cape York from Moreton Telegraph Office

Greyish siltstone with arenaceous foraminifera.

Ammodiscus cretaceus (Reuss)
Ammobaculites fisheri Crespin
Ammobaculites sp.
Bathysiphon sp.
Haplophragmoides spp.
Reophax spp.
Spiroplectammina cushmani Crespin
Spiroplectammina edgelli Crespin

No.15. Same locality as No.14

Greyish siltstone with a few arenaceous foraminifera chiefly indeterminate (Trochammina ragatti Crespin).

The foraminiferal tests in samples No.14 and No.15 are very crushed and distorted and identification is difficult. However, the assemblage is typically Lower Cretaceous and probably belongs to the same horizon as that in sample No.7.

No.16. Ducie River, 31 miles along Catfish Point road as in Nos. 14 and 15.

Grey siltstone with numerous very crushed and distorted tests of arenaceous foraminifera.

Ammodiscus sp.
Haplophragmoides sp.
Haplophragmoides cf. excavata Chapman
Spiroplectammina sp.
Trochammina sp.

This rock belongs to the same horizon as samples Nos. 7, 14, and 15.

No.19. Mein Telegraph Station (Qld.)

Grey siltstone with a little glauconite, fragments of carbonaceous material and foraminifera, most tests very crushed.

Ammodiscus sp.
Haplophragmoides sp.
Trochammina minuta Crespin
Globigerina cf. washitensis Carsey (cast)

The presence of a test of Globigerina cf. washitensis in association with numerous tests of arenaceous foraminifera suggests that the horizon of this sample may be the lowest in the stratigraphical sequence of the fossiliferous rocks examined in this collection. The association of numerous arenaceous tests with a few calcareous ones was found below the zone of Anomalina mawsoni in the bores in northern New South Wales.