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The Micro-Fauna of the Dandaragan Chalk
Western Australia

by

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THE MICRO-FAUNA OF THE DANDARAGAN CHALK,
WESTERN AUSTRALIA.

(Report No. 1944/40)

The samples of chalk examined for a micro-fauna came from two localities in the Dandaragan district:-

Sample A - "Kayanaba" Station, approximately 0.4 miles south-west of the southeast peg of location 416 and about 5 chains north of Round Hill.

Sample B - "Chelsea" Station, near dam on location 430.

The material yielded numerous fairly well preserved tests of foraminifera and ostracoda referable to Upper Cretaceous species. The assemblage of species is closely allied to that recorded from the Gingin chalk, about 60 miles to the south of Dandaragan, by Chapman in 1917.

Sample A is a cream coloured chalk with abundant glauconite which in many cases has replaced the foraminiferal tests. Foraminifera and ostracoda are numerous and moderately well preserved.

Sample B is a chalky and glauconitic sandstone, in which foraminifera are numerous but not as well preserved as those in Sample A while ostracoda are not so common. Fine, angular quartz grains are abundant.

A list of the micro-fossils present is given below:-

FORAMINIFERA

Sample A Sample B

Quinquoloculina sp.	X	.....
Masculina sp.	X	 X
Ammodiscus cretacea (Rouss)	X	.....
Haplophragmium cf. aequale Reemmer ....	.....	X
Marsenella oxycona (Rouss)	X	 X
Dorothia bulleto (Carsey) ....	.....	X
Verniculina polytropa Rouss	X	 X
Spiroplectammina cf. ancops (Rouss)	X	 X
Spiroplectammina sp. ....	.....	X
Gumbolina globulosa Ehren.	X	 X
Reussella sp. nov.	X	.....
Pleurostomella subnodosa Rouss ....	.....	X
Rhizammina cf. indivina Brady ....	.....	X
Lagena globosa (Montagu)	X	 X
Lagena apiculata (Rouss)	X	.....
Nodosaria limbata d'Orb.	X	 X
N. affinis Rouss	X	 X
N. aspera Rouss	X	.....
N. obscura Rouss	X	 X
N. naumani Cushman	X	.....
Dentalina basiplanata Cushman	X	 X
D. cf. granti (Plummer)	X	.....
D. nana Rouss	X	.....
D. gracilis d'Orb.	X	 X
D. megalopolitana Rouss	X	 X
D. lornesiana d'Orb.	X	 X

FORAMINIFERA

Sample A Sample B

Vaginulina comitina Berth.....	X	.....	X
V. recta Reuss.....	X	.....	
V. strigillata Reuss	X	.....	X
V. cf. barcoensis Cushman & Hedberg	X		
Marginalina cf. costata Batsch .....		.....	X
M. austinana var. directa Cushman	X	.....	X
M. bullata Reuss	X	.....	X
M. cf. navarroana Cushman	X	.....	X
M. ensis Reuss .....		.....	X
Frondicularia frankel Cushman	X	.....	
F. intermittens Reuss	X	.....	X
F. verneuiliana d'Orb.	X	.....	X
F. undulosa Cushman	X	.....	X
F. sp. nov. (striate)	X	.....	
F. archiaciana d'Orb. ....		.....	X
F. cf. apiculata Reuss	X	.....	
F. cordata Reuss	X	.....	
F. mucronata Reuss	X	.....	X
Palmula rugosa (Reuss)	X	.....	X
P. sp. nov.	X	.....	X
cf. Flabellinella sp. ....		.....	X
Lenticulina angusta (Reuss)	X	.....	
L. cf. strombecki (Reuss)	X	.....	
L. macrodiscus (Reuss)	X	.....	X
L. schloenbachi (Reuss)	X	.....	
L. grata (Reuss)	X	.....	
L. rotulata (Lam.)	X	.....	X
L. circumcidinea (Berth.)	X	.....	X
L. muensteri (Roemer)	X	.....	
L. gaultina (Berth.)	X	.....	X
L. navicula (d'Orb.)	X	.....	
L. gibba (d'Orb.) .....		.....	X
L. cf. navarroensis (Plummer) .....		.....	X
L. acutauricularis (F. & M.)	X	.....	
L. planiuscula (Reuss)	X	.....	
L. sp.	X	.....	
Planularia tricarlinella (Reuss)	X	.....	
Globigerina cretacea d'Orb.	X	.....	X
G. bulloides d'Orb.	X	.....	X
Globotruncana canaliculata (Reuss)	X	.....	X
Globorotalia micheliniana (d'Orb.)	X	.....	
Anomalina grosserugosa Gumbel.	X	.....	
A. rubiginosa Cushman .....		.....	X
Cibicides lobatulus (W. & J.) .....		.....	X
Pulvinulinella alata (Marsson)	X	.....	
cf. Stensioana	X	.....	
Cyroidina nitida (Reuss)	X	.....	X
Eponides sp. ....		.....	X
Planulina sp. nov. ....		.....	X
Nonion sp. ....		.....	X

OSTRACODA

Bythocypris cf. iernica Jones	X	.....	
B. reussiana Jones & Hinde	X	.....	
B. cf. browni J. & H.	X	.....	
B. silicula Jones .....		.....	X
Bairdia subdeltoides Jones	X	.....	
Pontocypris sp.	X	.....	
Cythere harrisiana var. reticosa J. & H. ..	X	.....	
C. harrisiana Jones .....		.....	X
Cythereis ornatissima Reuss	X	.....	
C. ornatissima var. pauperata J. & H.	X	.....	X
C. ornatissima var. reticulata J. & H.	X	.....	
Cythereis sp. cf. ornatissima Reuss	X	.....	
C. cf. triplicata Reuss	X	.....	
Gytheridea (Clithocytheridea) westral- iensis (Chapman)	X	.....	X

<u>OSTRACODA</u>	<u>Sample A</u>	<u>Sample B</u>
Cytheropteron (Cytheropteron) sp. nov. ..	x	 x
C. (Eocytheropteron) concentricum (Reuss) var.	x	.....
Cytherella ovata Jones	x	 x
C. muensteri Roemer	x	.....
Cytherelloidea williamsoniana (Jones) ...	x	 x

Nearly all the species represented in the above assemblage are known from the Gingen chalk, while most of the known forms are characteristic of the Upper Cretaceous deposits of Europe and America. Four species of foraminifera and one species of ostracoda with one variety have been recognised as new.

Other Upper Cretaceous deposits in Western Australia from which a similar microfaunal assemblage has been obtained are in the Northwest Basin. Material in which there is a large percentage of glauconite such as is present at Dandaragan, occurs at the following localities: on Bullara Station; along the approximate axis of the Giralda fold; Chargeo Paddock, Minilya Station and northwest side of Remarkable Hill. The chalky deposit at Cardabia Station is practically free from glauconite but contains small prisms of the pelecypod Inoceramus.

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