COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT

BUREAU OF MINERAL RESOURCES GEOLOGY AND GEOPHYSICS

RECORDS:

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PALAEONTOLOGICAL REPORT ON COLLECTION SENT FROM FITZROY CROSSING ON JUNE 6TH, BY D.J. GUPPY.

FITZROY

by

A.A. OPIK.

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LOWER CRETACEOUS (Tentatively)

Sample labelled : SR 1

"Stony ridge 68 miles East of Broome on main road".

White sandstone (quartzitic) with poorly preserved large Lamellibranchiates. The forms can be determined as cf. Cyprina Clarkei (Moore) Etheridge 1902 and cf. Panope sp. Miss Crespin showed me a similar rock with perhaps the same forms from the loc. CL35, from the Frazer River N. of Nickabalee (Nilli-Cubaca) Well in the same area. The fossils are determined by kind help of Miss I. Crespin.

JURASSIC.

Samples labelled LC 1

"Langey crossing over Fitzroy River"

Glauconitic sandy leached siliceous or kaolinitic rock with Belemnopsis, Lamellibranchiates, fossilized wood, but without foraminifera.

The belemnites, several phragmocones and guards, suggest the forms described by C. Teichert as both Belemnopsis cf. alfurica and Belemnopsis cf. incisa. Among the poorly preserved lamellibranchiates Buchia sp. seem to be represented.

The glauconite is an unusual component in Jurassic sediments of N.W. Australia suggesting perhaps a high level in the Oxfordian.

UPPER MIDDLE DEVONIAN AND UPPER DEVONIAN BIOHERMS AND BISTROME FACIES.

Samples labelled : MRS 3C - MRS 6A, RS 8A, RS 8B.

"Group of low outcrops South of Margarete River area about 2 miles N.W. of Minnie Pool to Minnie Pool."

MRS 3C - Crinoid stems, Bryozoa indet.
Pinkish limestone with Calcite and a black mineral

MRS 3D - Red Limestone, well bedded.
Gastropols (Straparollus?)
Spirifer sp.
Stromatopora sp.
A fish bone (?)

MRS 5A - Grey limestone, fine-grained
Gastropods
Stromatoporoids (Actinostroma)
Amphipora (?) sp.
Bryoza (gen. indet.)

MRS 5B - Grey limestone, with bits of mica, chlorite
Fragments of Trilobites (Proctidae)
Productella sp. Conocardium
Leptostrophia sp. Fenestellid Bryozoans
Spirifer sp.
Atrypa sp.
Schuchertella ? sp.

MRS 6A - Limestone (perhaps dolomitic)
Unfossiliferous, with quartz grains, felspar, chlorite.

RS 8A- Pink Limestone
Atrypa
Brachiop. indet.
Chrinoid fragments

RS 8B - Pink limestone
Spirifer sp.
Productella sp.
Bits of stromato-
poroids or Calc. algae
Gastropoda indet.
Serpulospira sp.

Samples labelled : RS 9A - RS 9E

"Massive outcrop immediately South of Minnie Pool"

RS 9A - Grey to Yellowish limestone
Bryozoa indet.
Atrypa
Gastropoda indet.
Amphipora sp.

RS 9B - Crinoidal Limestone
Thamnopora sp. -
Stromatoporoids (Clathrodictyon)

RS 9C - Limestone (grey) with Gastropods (Straparollus and gen.indet.)
Cystiphyllum (?) sp. -
Alveolites cf. tumida
Ostracoda (gen.indet.)

RS 9D - Limestone with Corals
Amphipora sp.
Disphyllurn ? sp.
Prismatophyllum brevilamellatum Hill

RS 9E - Yellowish dense limestone, highly fossiliferous
Atrypa sp
spirifer sp.
Emanuella sp.
Rhynchonellids
Amphipora sp.

RS 9F - White, dense limestone
with Atrypa and bits of Stromatoporoids

Samples labelled : RS 11 - RS 16A

"Outcrops between RS 9 and North side of J 7 Range"

RS 11 - Corallimestone
Amphipora
Corals indet.

RS 12 - A specimen of a bioherm limestone

RS 14A- Prismatophyllum brevilineatum Hill

RS 14B- Brachiopod limestone
Atrypa sp.
Gypidula (?) sp.

RS 14C- Red limestone
Gastropods, indet.
Stems of crinoids
A piece of manganese oxide in box-structure
Atrypa sp.

RS 16, RS 16A - Red limestone
A Goniatite (indet.)
Limestone with stromatoporoids.

Samples labelled : RS 19A - 19F

"South End of Hull Range on South side of Margarete River"

RS 19a - Calciferous sandstone, a specimen.

RS 19a - (second bag)
Limestone
Stromatoporoids
Amphipora

RS 19E - Limestone with Gastropods, Brachiopods, very sandy, with bits of chlorite, quartz, etc.
Prismatophyllum sp.
Stromatoporoids

RS 19F - Yellowish limestone with ostracods and Brachiopods.
Ostracoda : several species of Primitidae
Beyrichidae, Bairdiidae
Brachiopods : Torynifer sp.

Samples labelled : RS 26A - RS 26C;
RS 29B - 29E;
RS 31B, 31C;
RS 33A - 33D, RS39.

"Scattered bold limestone outcrops in gap East between J7 and J8 masses. Outcrops located on east side of the gap a few miles West of Louisa River".

RS 26A and B - Red limestone, bioherm
Atrypa sp
Schizophoria sp
Gastropoda indet.
Receptaculites sp
Stromatoporoidea
Phillipsastraea sp.

RS 26C - Red limestone, bioherm
Brachiopoda, ostracoda, - indet.

RS 29B - Limestone (yellow)
with Amphipora

RS 29E - Bioherm limestone
with Stromatopora (Clathrodictyon?)

RS 31B - Red Limestone
Crinoidal stem joints, roots

RS 31C - Calcareous sandstone
with mica, chlorite, pebbles of quartz, slate.

RS 33A - Red limestone, bioherm
Gypidula sp
Atrypa sp
Leptostrophia? sp.
Productella sp.
Hypothyridina sp.
Spirifer sp.
Schizophoria sp.
Pugnoides sp. No.1 (non plicate)
Pugnoides sp. No.2 (biplicate)
Emanuella sp. No.1
Emanuella sp. No.2
Scubellum sp. (n.sp.Teichert)
Proetids

RS 33B - Red limestone, bioherm
Phillipsastraea cf. delicatula Hill
Receptaculites sp.
Gastropoda indet.
Spirifer sp.
Pugnoides sp. No.1 (non plicate)

RS 33D - Red limestone, bioherm
Atrypa sp.
Productella sp.
Strophomenoids
Brachiopoda indet.

RS 39 - Limestone,
Crossbedded (Lime-sandstone)
seemingly detritus (contemporaneus) from or inside
a Devonian bioherm.

Sample labelled RS 42

"Limestone outcrop at foot of, and on North side of J8 Trig.Hill"

RS 42 - Pink limestone bioherm
Corals
Stromaloporoids
Indet.brachiopods
Atrypa, Rhynchonelloids, Spirifer
Emanuella sp. No.1

CONCLUSION.

This collection represents the bioherm facies of Devonian rocks around Minnie Pool, - Pinbilly Well, South of Margaret River. Doubtless Upper Middle Devonian and Upper Devonian both are represented in the collection. In this facies it is not possible to determin the boundary between these formations exactly. Where Amphipora is present, especially when in form of biostromes, Middle Devonian can be assumed. But the absence of Amphipora in a section or in a locality does not necessarily mean the absence of Middle Devonian rocks. A full and proper study of the complete fauna is the only way to determine this still important boundary.

The number of species recognised in this collection is small in comparison with the number given in the fossil lists by Dr. C. Teichert. Many forms in the present collection are represented only by few incomplete specimens and could not be determined exactly. This can be done easily by comparison with the better preserved fossils in the collection of Dr. C. Teichert.

New for the Devonian of N.W. Australia are the abundant ostracods in the sample RS 19F, which deserve a special attention and, if possible, more material.

The brachiopods determined here as Emanuella, Pugnoides and Torynifer are not mentioned by Dr. Teichert.

Pugnoides is represented mainly by immature specimens, without costae. Emanuella and Torynifer are spiriferoid genera with a non-plicate, non costate shell. About ten genera with the same structure are known from the Devonian and an exact determination can be done on behalf of the internal features, which needs more time. In regard to this the forms referred to Emanuella need a revision. Torynifer is a carboniferous (Mississippian) genus, not yet recorded from the Devonian. It is represented in the sample RS 19F only (the ostracode limestone). But among all known smooth spiriferoids Torynifer only has a dorsal hinge plate connected with the median septum, which is present in the brachiopode from RS 19F also.

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