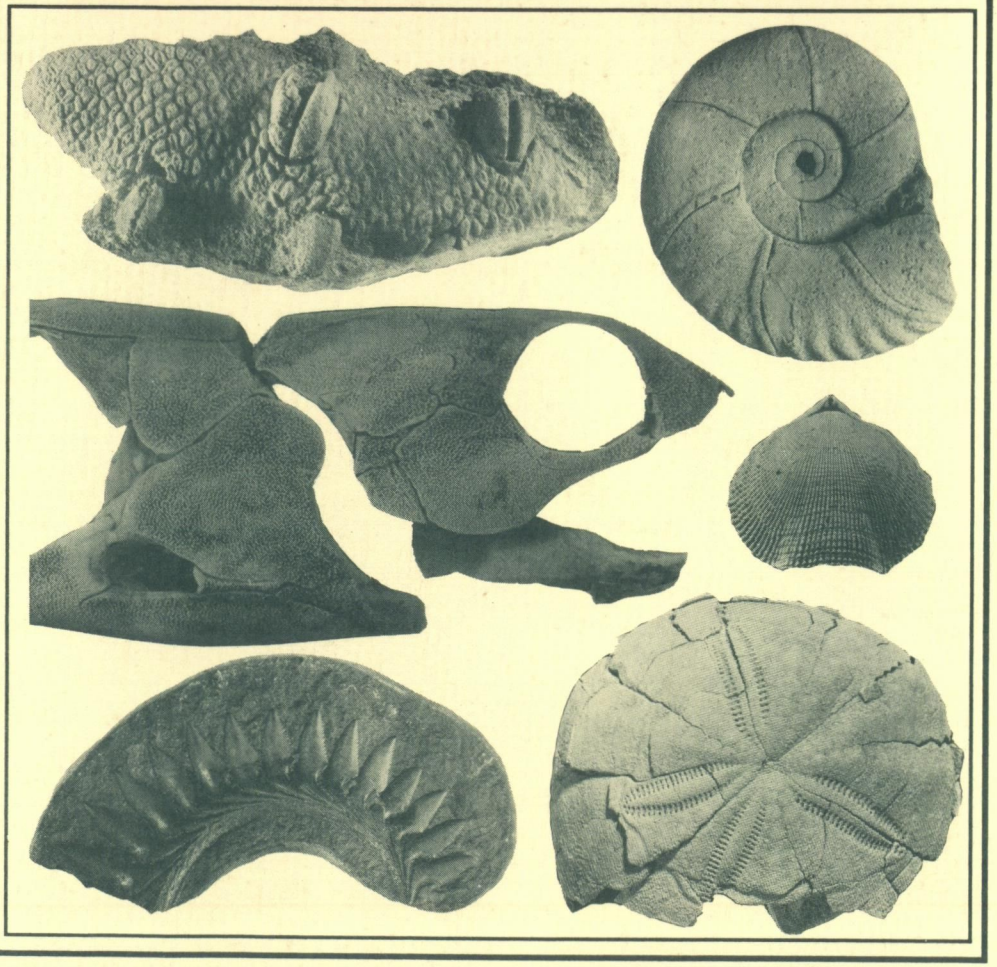
Records of the Western Australian Museum Supplement No. 39

Catalogue of type fossils

IN THE WESTERN AUSTRALIAN MUSEUM



K.J. McNAMARA, J.A. LONG AND K. BRIMMELL

CATALOGUE OF TYPE FOSSILS IN THE WESTERN AUSTRALIAN MUSEUM

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K.J. McNamara, J.A. Long and K. Brimmell

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Catalogue of type fossils in the Western Australian Museum

K.J. McNamara, J.A. Long and K. Brimmell*

ABSTRACT

This catalogue records details concerning all the fossil plant, invertebrate, and vertebrate type specimens (holotypes, lectotypes, syntypes, neotypes, paratypes and paralectotypes) that are present in the palaeontological collections of the Western Australian Museum. Of the 156 species for which type specimens are held, 127 are represented by holotypes. The collection contains just one holotype of a species described last century; a further ten species represented by type specimens of species or subspecies described in the first 65 years of this century, but a further 132 of species or subspecies described in the last 25 years.

INTRODUCTION

1991 marks one hundred years since the Western Australian Museum was established. In that time the fossil collection has grown from the few specimens that were inherited from the Fremantle Geological Museum's collections to become the single largest part of the Western Australian Museum's collection in terms of numbers of specimens. While an accurate figure is not available, it is estimated that there are approximately one and a half million specimens in the collections, registered in some 125,000 lots.

The fossil collections are divided into separate vertebrate, invertebrate and plant (including stromatolite) collections. Each has a separate numbering system. The vertebrate numbers are based on the year, the month, and the number of specimens registered in that month. For instance the holotype of *Latocamurus coulthardi* Long 1988 has the registration number WAM 86.9.670. That is to say it was the six hundred and seventieth specimen registered in September 1986. Note that the numbers are separated by a full stop (period).

The invertebrate numbers are based on just year and number of the specimen registered that year. Thus, the holotype of *Tegulorhynchia boongeroodaensis* McNamara, 1983 has the registration number WAM 80.1523, indicating that it was the one thousand five hundred and twenty third specimen registered in 1980. Fossil plants have a similar numbering system to the invertebrates except for the fact that the number is preceded by the letter P. For instance the holotype of *Banksia archaeocarpa* McNamara and Scott, 1983 has the registration number P79.42.

Specimens registered prior to the 1950's followed a different numbering system, with a number preceded by the letter G. For instance the holotype of *Cidaris comptoni* Glauert, 1923 is G3775.

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The type collection is housed separately from the main part of the collection in locked, fire-proof cabinets in a central storage area that is under separate environmental control from the rest of the building. This catalogue represents the first catalogue to be published of the type fossil specimens held at the Western Australian Museum. The only other catalogue which has recorded some of the specimens is Crespin's (1964) catalogue of all fossil types lodged in institutions in Western Australia.

This catalogue deals only with holotypes, syntypes, paratypes, lectotypes, paralectotypes and neotypes. For each type specimen its status (e.g., holotype, paratype), registration number, locality, name of the formation from which it was collected and its age is presented. In addition any specific remarks pertaining to the specimen are also appended. For instance with vertebrates, which are usually known from incomplete specimens, that part of the skeleton which is preserved is indicated. The species are listed alphabetically under current generic assignment within broad groupings, e.g., Bivalvia, Echinoidea, Ammonoidea, and so on. In the Appendix all species held as type specimens, whether as holotype and/or paratype, are listed alphabetically under the species or subspecies name.

A BRIEF HISTORY OF THE FOSSIL COLLECTIONS

For the first year of its life the Western Australian Museum was known as the Geological Museum, because its first collections were entirely of rocks, minerals and fossils. These were derived from the collections of the Fremantle Geological Museum, an institution that had been established by the Rev. Charles G. Nicolay in 1881 (Playford and Pridmore 1969, 1974; McNamara and Dodds 1986). In 1891 its collections were transferred to the Western Australian Museum upon its establishment in Perth.

Relatively few fossils were present in this fledgling collection, even though expeditions were undertaken during the life of Nicolay's Museum in Fremantle. Most notable amongst these was the expedition to the Kimberley by the Government Geologist from 1882 to 1885, E.T. Hardman. However, very few of the fossils that he collected in that trip, representing over 60 taxa (Hardman 1885), ended up in the Western Australian Museum collections, even though the rock and mineral specimens that were placed in the Fremantle Geological Museum did. On his return to the United Kingdom in 1896 Hardman took with him the fossil specimens and presented some of them to the British Museum (Natural History), following their exhibition at the Colonial Exhibition in London (McNamara and Dodds 1986). A number of these fossils were described by Foord (1890), and the type specimens are now either in the Natural History Museum in London or in the fossil collection of the Geological Survey of Western Australia, to where they were returned (Crespin 1964).

The first type specimen described from the Western Australian Museum collections, the fossil shark *Edestus* (now *Helicoprion*) *davisii* (Woodward 1886), was also taken by Hardman to London and passed to H.B. Woodward at the British Museum (Natural History) for identification and description. This specimen (Figure 1), perhaps a little surprisingly, was returned to the Western Australian Museum. As such it represents the

Figure 1. Holotype (WAM G9080) of *Helicoprion davisii* (Woodward, 1886).

only type specimen in the W.A. Museum collections that was described in the 19th century. Furthermore, it is the one and only fossil vertebrate species described and named from Western Australia last century.

When Crespin (1964) published her 'Catalogue of Fossil Type and Figured Specimens in Western Australia', only 11 species were represented in the Western Australian Museum's collections as either holotypes or paratypes. Shortly thereafter the number of type specimens in the collection began to increase rapidly, due largely to the influence of Dr Duncan Merrilees who was appointed as the Museum's first Curator of Palaeontology in 1960. In the 25 years since the establishment of this position the number of species represented in the collection has risen by a further 137 to 148 (Figure 2). The holotypes of 127 of these species are present in the Western Australian Museum fossil collection.

Of the species described in the early part of this century probably the most significant were the Pleistocene vertebrates from cave deposits in Mammoth Cave. First discovered in 1904, it was not until Mr Ludwig Glauert, then sole Curator at the Western Australian Museum, undertook extensive collecting in 1909 that the magnitude of the deposit was realised. From this material Glauert described three new species of fossil mammals (Glauert 1910, 1914) and Flannery (1989) described a new species of wallaby.

Many of the new species described from the collections in the 1970s were of fossil molluscs and fossil fish. With the appointment of Mr George Kendrick to the

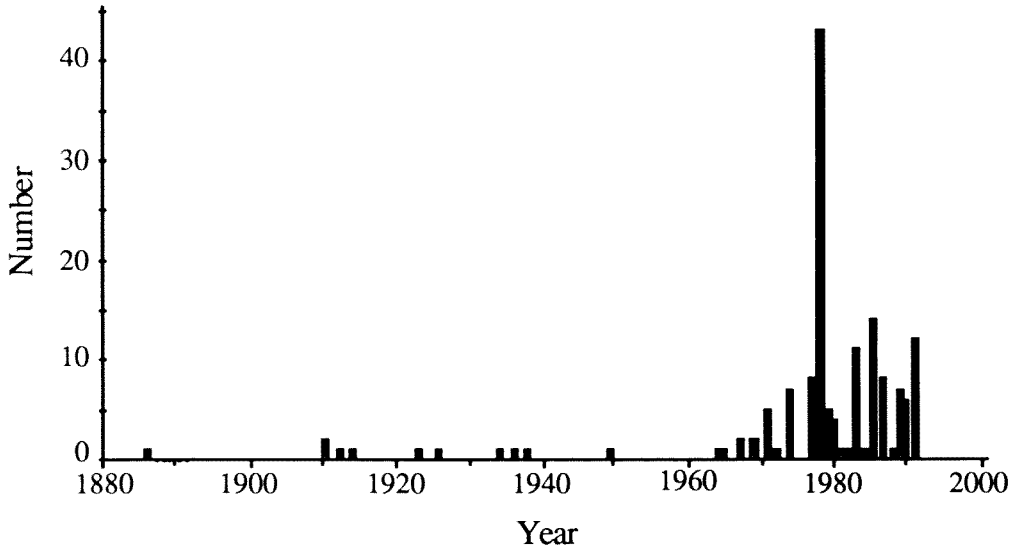

Figure 2. Plat showing numbers of species described each year since 1886 on the basis of type specimens held in the W.A. Museum.

Department of Palaeontology in the 1960s, the invertebrate collection began to grow in number quite substantially, particularly in the area of Cenozoic molluscs. Many of the species described in this period were Pliocene molluscs from the Roe Plains (Ludbrook 1978). The fossil fish that began to be described in the 1970s and continue to be so through to the present day, are from the Late Devonian Gogo Formation.

The Devonian fishes of the Gogo Formation, near Fitzroy Crossing, are regarded as the best examples of fishes of this age from anywhere in the world (Ritchie 1985). A history of the discovery of the site and the first two expeditions is discussed in Gardiner and Miles (1990) and Long (1988b). Several tonnes of unprepared fishes and crustaceans were collected in 1963 and 1967 by teams from the British Museum (Natural History), the Western Australian Museum and the Hunterian Museum (Glasgow). An agreement was struck by the British Museum and the Western Australian Museum that all holotypes, and a "fair proportion of the collected specimens" should be returned to Perth after the systematic descriptions had been completed. This agreement is today being honoured with many of the Gogo fish and crustacean holotypes already returned to Perth. Since the 1960s the site has been collected by Australian groups, starting with teams from the Australian National University and Bureau of Mineral Resources in Canberra, and the Australian Museum in the early 1970s. One of us (JAL), while at the University of Western Australia, began collecting at Gogo in 1986 supported by funding from the National Geographic Society, and this continued each field season through to 1988, resulting in about two hundred new specimens being donated to the Western Australian Museum. The site was worked briefly in 1989 by two of us (JAL and KJM), and in late 1990 a team from the Australian National University with JAL collected a

large number of good fish fossils. The site has produced some 40 species of fish, all new to science, although some holotypes are held outside of Perth in the collections of the Australian National University Geology Department, the Bureau of Mineral Resources, both in Canberra, and in the Australian Museum, Sydney.

The appointment of Dr Kenneth J. McNamara in 1979 to replace Duncan Merrilees on his retirement, saw an increase in diversity of taxa described, from fossil plants, through brachiopods, and ammonites to echinoids. Many of these descriptions arise from a series of collecting trips to the Giralia Range in the Carnarvon Basin, mainly involving KJM and Mr G.W. Kendrick, but also including JAL, Dr T. Darragh, Dr R.A. Henderson and Professor G. Philip. In this area latest Cretaceous to earliest Tertiary sediments are exposed. Forthcoming papers will describe more echinoids (KJM), bivalves and gastropods (G.W. Kendrick and T. Darragh), heteromorph ammonites (R.A. Henderson, W.J. Kennedy with KJM) and reptiles (JAL).

The geographical distribution of the species described from Western Australia reflects not only the geographical distribution of the sedimentary basins, but also their proximity to Perth. The majority of species that have been described are from the Eucla, Bremer, Perth and Carnarvon Basins. The only species described on the basis of Western Australian Museum specimens from the Canning Basin are the fossil fish from the Gogo Formation. This illustrates not only the logistic problems experienced earlier this century in travelling such large distances from Perth and collecting large samples, but also in more recent times the inadequate levels of funding to allow detailed collecting from that area.

A doubling of the curatorial staff in 1989 with the appointment of Dr John Long as Curator of Vertebrate Palaeontology has already seen an increase in the percentage of vertebrate species described. No doubt as we pass into the Museum's second century of operations the number of vertebrates described will steadily increase.

PLANTAE

Banksia archaeocarpa McNamara and Scott, 1983

1983 *Banksia archaeocarpa* McNamara and Scott, pp. 187-190, Figs 1, 2A

HOLOTYPE

WAM P79.42 (Figs. 1A, B; 2A).

Locality

Base of the eastern scarp of Kennedey Range, at about 24°20'S, 115°09'E.

Formation

Merlinleigh Sandstone.

Age

Middle or Late Eocene.

Remarks

External mould of infructescence.

PARATYPE.
WAM P77.22

Locality
As for holotype.

Formation
As for holotype.

Age
As for holotype.

Remarks
External mould of infructescence. WAM P83.26 (a & b) is plaster cast of paratype FMNH PP 33245, (Field Museum of Natural History Chicago). Locality details as for holotype.

PORIFERA

Vaceletia progenitor Pickett, 1982

1982 *Vaceletia progenitor* Pickett, pp. 243-246, Figs 2-6

HOLOTYPE
WAM 81.2729 (Fig. 2D).

Locality
26 km from Walpole townsite, Western Australia on Thompson Highway.

Formation
Pallinup Siltstone.

Age
Late Eocene.

PARATYPES
WAM 81.2247 (Fig. 2C), 81.2254 (Fig. 5A, B), 81.2730 (Fig. 2A), 81.2731 (Fig. 2B), 81.2734 (Fig. 4A, B), 81.2732 (Fig. 3A), 81.2733 (Fig. 3B) 81.2248-53, 81.2259 (16 specimens), 72.323 (12 specimens), 80.1400 (4 specimens).

Locality
As for holotype.

Formation
As for holotype.

FORAMINIFERA

Hemigordius volutus Palmieri *in* Foster, Palmieri and Fleming, 1985

1985 *Hemigordius volutus* Palmieri *in* Foster, Palmieri and Foster, p. 82, pl. 6, Figures 10-14

HOLOTYPE

WAM 83.2785 (Pl. 6, figs 11-14).

Locality

Beckett Gully, 7 km south of Fossil Cliff, Irwin River, Western Australia.

Formation

Fossil Cliff Member of the Holmwood Shale.

Age

Early Permian, Sakmarian

PARATYPE

WAM 83.2784, (Pl. 6, fig. 10).

Locality

As for holotype.

Formation

As for holotype.

Age

As for holotype.

Remarks

WAM numbers published with dashes e.g. 83-2785.

CNIDARIA

Scruttonia delicatula (Hill, 1936)

1936 *Phillipsatroea delicatula* Hill, pp. 30-31, Text-figs 4, 5

1991 *Scruttonia delicatula* Hill; Wright, pp 53-58, Fig. 1

PARATYPE

WAM 4435 (Hill 1936, Text-Fig. 5; Wright 1991, Figure 1).

Locality

Barker Gorge, Napier Range, Kimberley, Western Australia.

Formation

Pillara Limestone.

Age

Early Famennian.

Remarks

Median vertial section. Hill (1936) mentioned two WAM numbers 4435 and 4436. These two numbers refer to only one specimen. The thin section figured by Hill (1936, text-figure 5) bears the inscription 4435/6. This is the only known specimen, the holotype having been lost (Wright, 1991, p. 54).

BRACHIOPODA

Adnatida gnangarensis Richardson, 1991

1991 *Adnatida gnangarensis* Richardson, p. 41, Figure 5 A-F

HOLOTYPE

WAM 90.247 (Figure 5 A-C, E).

Locality

Gnangara, Western Australia, W.A. Mines department Bore No. 5, 3.5 km south of Gnangara Road 6 km east of Wanneroo Road. Depth 44.2-46.3 m.

Formation

Ascot Formation.

Age

Late Pliocene to Early Pleistocene.

PARATYPES

WAM 90.248 (Figure 5 D); 90.249 (Figure 5 F).

Locality

Same as holotype.

Formation

Same as holotype.

Anakinetica recta Richardson, 1991

1991 *Anakinetica recta* Richardson, p. 33, Figure 1 G-L

HOLOTYPE

WAM 90.241 (Figure 1 H, J-L).

Locality

Jandakot, Western Australia, Paulik's Bore, Lot 6, west side of Semple Road; Bore No. S1/50-2 2033-1-D5. Depth uncertain.

Formation

Ascot Formation.

Age

Late Pliocene to Early Pleistocene.

PARATYPES

WAM 90.242-244; 90.245 (Figure 1 G); 90.246 (Figure 1L).

Locality

Same as holotype.

Formation

Same as holotype.

Fusispirifer byroensis (Glauert, 1912)

1912 *Spirifer byroensis* Glauert, p. 75

1915 *Spirifer byroensis* Glauert; Etheridge (*partim*), pp. 25-28, Pl. 6. figs 1-5

1964 *Spirifer byroensis* Glauert; Crespin, p. 71

1987 *Fusispirifer byroensis* (Glauert); Archbold and Thomas pp. 181-184, Figs. 3A-H, 4A-F (with full synonymy).

LECTOTYPE

WAM 1650 (Etheridge, 1915 Pl. 6, figs 1, 2).

Locality

Byro Station, Murchison District, Western Australia.

Formation

?Byro Group.

Age

Late Artinskian (Early Permian).

PARALECTOTYPE

WAM G1651

Locality

As for lectotype.

Formation

As for lectotype.

Remarks

Glauert (1912 p. 76) noted that "two shells chosen as types (Nos. G1650 and G1651)". Neither G1650 nor G1651 was figured or designated as a holotype in the original description. Etheridge (1915 Pl. 6, figs 1, 2) figured WAM G1650, noting that "This is one of Mr Glauert's types". Again no mention was made of G1650 being a holotype. Crespin (1964 p. 71) reported that "1650 Holotype (designated by L. Glauert, 24/8/62)". However, G1650 has not been designated as a holotype in any published work; hence it is a lectotype, and thus G1651 is a paralectotype.

Tegulorhynchia boongeroodaensis McNamara, 1983

1983 *Tegulorhynchia boongeroodaensis* McNamara, pp. 462—466, Fig. 1 A—Y

HOLOTYPE

WAM 80.1523, (Figure 1 T,W,X,Y).

Locality

3-6 km NNW of Whitlock Dam, Giralia Station, Western Australia, from head and left bank of gully. Giralia Range. Grid Reference: Giralia KV 115820 (1:100,000 sheet).

Formation

Boongerooda Greensand.

Age

Early Paleocene.

PARATYPES

WAM 71.161a (Figure 1 N,R), 71.161b,d, 71.161e (Figure 1 P), 80.1499, (Figure 1 U,V), 80.1500 (Figure 1 J), 80.1501 (Figure 1 E), 80.1502.

Locality

Southern tributary of Toothawarra Creek, Giralia Range about 300 m south of the type section of the Boongerooda Greensand, GR 070720.

PARATYPES

WAM 80.1492 (Figure 1 B,L), 80.1493, 80.1496 (Figure 1 C,H), 80.1497 (Figure 1 Q).

Locality

Base of Section Hill Giralia Range. Grid Reference KV 017543.

PARATYPES

WAM 71.148a (Figure 1 S), 71.148b (Figure 1 D,I), 71.148c (Figure 1 M).

Locality

Toothawarra Creek Giralia Range. Grid Reference KV 0170725.

PARATYPE

WAM 80.1504

Locality

Creek 6.5 km east of No. 10 Bore, Giralia Range. Grid Reference KV 026617.

PARATYPE

WAM 80.1508 (Figure 1A, F, G, K).

Locality

Southern tributary of Toothawarra Creek, Giralia Range, about 350 m south of junction with northern tributary. Grid Reference KV 070720.

Remarks

All specimens are from the Boongerooda Greensand (Early Paleocene), except for WAM 80.1508 which is from the Pirie Calcarenite (Late Paleocene). Grid References refer to the Giralia 1:100,000 map sheet.

POLYPLACOPHORA

Bassethullia proporcina Gowlett-Holmes, 1990

1990 *Bassethullia proporcina* Gowlett-Holmes, pp. 24-26, Figure 8

HOLOTYPE

WAM 78.430 (Figure 8 C, F).

Locality

Jandakot, Western Australia (32°7'S, 115°51'E), from Paulik's Bore, east end of Lot 41, Semple Road. Depth of 33.4 m.

Formation
"Jandakot beds".

Age
Early Pleistocene.

PARATYPE
WAM 78.1942 (Figure 8A).

Locality
From same locality as holotype, but at a depth of 30.5 m.

Formation
Same as holotype.

PARATYPE
WAM 88.343 (Figure 8 D).

Locality
Same as holotype.

Formation
Same as holotype.

PARATYPE
WAM 86.1194 (Figure 8 B,E).

Locality
West Gingin, Western Australia (31°20'S, 115°49'E), Jupp's Bore No. 1, Swan Loc. 789, Gingin Brook Road. Depth between 28.6-28.4 m.

Formation
Ascot Formation.

Age
Late Pliocene.

BIVALVIA

Barbatia (Acar) gunsoni Darragh and Kendrick, 1980

1980 *Barbatia (Acar) gunsoni* Darragh and Kendrick, p. 11, Figure 2 J-L

HOLOTYPE
WAM 78.4087a (Figure 2 J,K).

Locality
Sandy depression 26 km north from Walpole townsite, Western Australia along Thompson Highway; sieved from grey, silty sand overlying brown siltstone, 34°48'S 116°43'E.

Formation
Pallinup Siltstone.

Age
Late Eocene.

Remarks

A single right valve, slightly worn.

PARATYPES

WAM 78.4087b (Figure 2L), 67.75a, 69.105a,b, 72.263, 74.544, 78.4087c,d, 78.4088a,b.

Locality

As for holotype.

Formation

As for holotype.

Age

As for holotype.

Remarks

Figured specimen WAM 78.4087b is an unworn right valve.

Camptonectes greenoughi Skwarko, 1974

1968 *Camptonectes* sp. nov. aff. *C. lens* (J. Sowerby); Skwarko in Coleman and Skwarko, pp. 206-207, Pl. 25, figures 11, 12

1974 *Camptonectes greenoughi* Skwarko, pp. 80-81, Pl. 26, figures ?11, 13-17

HOLOTYPE

WAM 67.497 (Pl. 26, figures 13, 14).

Locality

Waggrakine near Geraldton, Western Australia; about 1.4 km northwest of Mt Fairfax, west face of hills from outcrop on limestone buff.

Formation

Newmarracarra Limestone.

Age

Bajocian (Middle Jurassic).

Remarks

A crushed but nearly complete bivalve.

'Camptonectes' waggrakinensis Skwarko, 1974

1870 *Pecten cinctus* J. Sowerby; Moore, pp. 230-232

1974 *'Camptonectes' waggrakinensis* Skwarko, pp. 82-83, Pl. 25, figures 1, 4, 10

PARATYPE

WAM 65.1099 (Pl. 25, figure 10).

Locality

Geraldton district, Western Australia exact locality unknown.

Formation

Newmarracarra Limestone.

Age
Bajocian (Middle Jurassic).

Remarks
Left valve.

PARATYPE
WAM 66.297 (Pl. 25, figure 4).

Locality
Waggrakine, near Geraldton Western Australia; cliff 1.6 km south of cutting on road to Nanson.

Formation
Newmarracarra Limestone.

Age
Bajocian (Middle Jurassic).

Remarks
Proximal part of right valve.

Cardium archaeformis Chapman and Crespin, 1934

1934 *Cardium archaeformis* Chapman and Crespin, p. 121, Pl. 11, figures 25, 26, 27

HOLOTYPE
WAM 6048 (Pl. 11, figures 25, 26, 27).

Locality
Brick pit 3 miles (5 km) north-west of Albany, Western Australia.

Formation
Plantagenet Group.

Age
Late Eocene.

Remarks
Valve, as a mould. Darragh and Kendrick (1980) considered this species to be a synonym of *Glans (Fasciculicardia) latissima* (Tate).

Chlamys enantyi Skwarko, 1974

1974 *Chlamys enantyi* Swarko, pp. 83-84, Pl. 26, figures 1, 6, 12

HOLOTYPE
WAM 67.482 (Pl. 26, figure 6).

Locality
Waggrakine near Geraldton, Western Australia, 1 km south of road to Nanson, on west face of hills, from outcrop 1 m below laterite.

Formation
Newmarracarra Limestone.

Age
Bajocian (Middle Jurassic).

Remarks
Incomplete valve.

Chlamys (Microchlamys) propesalebrosa Darragh and Kendrick, 1991

1991 *Chlamys (Microchlamys) propesalebrosa* (Darragh and Kendrick, pp. 55-58, Figure A-E

HOLOTYPE
WAM 83.3000 (Figure 16 A, B).

Locality
Giralia Range, Western Australia, eastward draining gully 1.8 km south of the Bullara-Giralia road, Grid Reference 1:100 000 Sheet, KV 175 893.

Formation
Miria Formation.

Age
Late Maastrichtian (Late Cretaceous).

PARATYPES
WAM 71.295; 80.852 (Figure 16 C); 83.2870 (Figure 16 D); 83.3055; 83.3065 (Figure 16 E); 83.308a; 83.3118.

Locality
Giralia Range, Western Australia.

Formation
Same as holotype.

Chlamys (s.l.) cracenticostata Darragh and Kendrick, 1991

1991 *Chlamys (s.l.) cracenticostata* Darragh and Kendrick, pp. 62-65, Figure 17 A-O

HOLOTYPE
WAM 83.2871 (Figure 17 A, B).

Locality
Giralia Range, Western Australia, from gullies draining south 0.4 km south of the north boundary of Bungarra Paddock, Grid Reference 1:100 000 Sheet, KV 160870.

Formation
Miria Formation.

Age
Late Maastrichtian (Late Cretaceous).

PARATYPES
WAM 83.3169 (Figure 17D); 86.1228 (Figure 17 E, F); 87.371 (Figure 17 G).

Locality
Giralia Range, Western Australia.

Formation
Miria Formation.

Dosina occidentalis Ludbrook, 1978

1978 *Dosina occidentalis* Ludbrook, p. 69, Pl. 6, figures 7-10

HOLOTYPE
WAM 69.352 (Pl. 6, figures 7-10).

Locality
Hampton Microwave Repeater Tower, Roe Plains, Western Australia 31°57′57″, 127°34′45″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

PARATYPES
WAM 70.1101, 70.1102, 70.1126, 70.1127.

Locality
As for holotype.

Formation
As for holotype.

PARATYPES
WAM 66.392, 66.583.

Locality
Nurina Cave, Roe Plains, Western Australia, 32°00′31″, 127°00′30″E.

Formation
As for holotype.

Giraliapecten oboloides Darragh and Kendrick, 1991

1991 *Giraliapecten oboloides* Darragh and Kendrick, pp. 47-52, Figure 13 A-F, 14 A, B

HOLOTYPE
WAM 87.370 (Figure 13, A, B).

Locality
Giralia Range, Western Australia, eastward draining gully 1 km north-west of West Tank, Grid Reference 1:100 000 Sheet, KV 175 883.

Formation
Miria Formation.

Age
Late Maastrichtian (Late Cretaceous).

PARATYPES
WAM 80.683; 83.2978; 83.30 15b; 86.1226 (Figure 13 C, D); 86.1317 (Figure 13 E); 86.1456; 87.405 (Figure 13 F).

Locality
Giralia Range, Western Australia.

Formation
Same as holotype.

Glycymeris (Tucetona) lowryi Ludbrook, 1978

1978 *Glycymeris (Tucetona) lowryi* Ludbrook, pp. 40-41, Pl. 1, figures 11-14

PARATYPE
WAM 62.29 (5 specimens).

Locality
Madura Cave, Roe Plains, Western Australia, 31°59'31"S, 127°02'18"E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

Grammatodon (Nanonavis) subdiscors Darragh and Kendrick, 1991

1991 *Grammatodon (Nanonavis) subdiscors* Darragh and Kendrick, pp. 17-20, Figure 2 A-I

PARATYPES
WAM 75.1209a; 80.624a, b (Figure 2 D); 80.820 (Figure 2 G, H); 80.871 (Figure 2 F, I); 87.319.

Locality
Giralia Range, Western Australia.

Formation
Miria Formation — phosphatic nodule bed at base.

Age
Late Maastrichtian (Late Cretaceous).

Katelysia praecursor Ludbrook, 1978

1978 *Katelysia praecursor* Ludbrook, p. 74, Pl. 7, figures 11-16

PARATYPE
WAM 69.371 (Pl. 7, figures 14, 15).

Locality
64 km west of Eucla, Roe Plains, Western Australia, 31°50′00″S, 128°11′00″E.

PARATYPES
WAM 62.27 (3 specimens), 66.604 (2 specimens).

Locality
Madura Cave, Roe Plains, Western Australia, 31°59′31″S, 127°02′18″E.

PARATYPE
WAM 66.395 (10 specimens).

Locality
Nurina Cave, Roe Plains, Western Australia, 32°00′31″S, 127°00′30″E.

PARATYPE
WAM 70.1093.

Locality
88 km west of Eucla Hotel, Roe Plains, Western Australia, 31°51′33″S, 127°57′00″E.

Remarks
All specimens are from the Roe Calcarenite (Late Pliocene).

Lopha marshii (J. Sowerby, 1812) *australiensis* Skwarko, 1974

1870 *Ostrea marshii* J. Sowerby; Moore, p. 230-232.

1974 *Lopha marshii* (J. Sowerby, 1812) *australiensis* Skwarko, pp. 89-91, Pl. 30, figures 1-6

SYNTYPE
WAM 63.118 (Pl. 30, figures 1, 2).

Locality
Waggrakine Cutting, near Geraldton, Western Australia.

SYNTYPE
WAM G4954.

Locality
Railway cutting, Grant's near Geraldton, Western Australia.

SYNTYPE
WAM 66.64.

Locality
Waggrakine, near Geraldton, Western Australia, from caves near the road to Nanson, 0.5 km south of road, on west face of hills.

SYNTYPE
WAM 61.228.

Locality
25 km east of Geraldton, Western Australia.

SYNTYPE
WAM 65.955.

Locality
Cave near Waggrakine Cutting, on the Geraldton-Nanson road, Western Australia.

SYNTYPE
WAM 66.327.

Locality
Geraldton district, Western Australia, exact locality unknown.

SYNTYPE
WAM 65.1113.

Locality
20 miles east of Geraldton, Western Australia. From railway cutting.

SYNTYPE
WAM 65.1195.

Locality
Waggrakine via Geraldton, Western Australia, from caves near road to Nanson.

Remarks
All specimens are from the Bajocian (Middle Jurassic) Newmarracarra Limestone.

Miltha hamptonensis Ludbrook, 1969

1969 *Miltha hamptonensis* Ludbrook, pp. 60-61, Pl. 3, figures 1-3, Pl. 4, figures 1, 2

HOLOTYPE
WAM 69.334a, b (Pl. 3, figure 1, Pl. 4, figures 1, 2).

Locality
Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″, 127°34′45″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

PARATYPE
WAM 61.33 (Pl. 3, figures 2, 3).

Locality
32 km east of Madura, Western Australia by Eyre Highway, 30°54′31″, 127°21′12″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

Panopea stenopleura Darragh and Kendrick, 1991

1991 *Panopea stenopleura* Darragh and Kendrick, pp. 88-91, Figure 25 A-F

HOLOTYPE

WAM 83.2884a (Figure 25 A-E).

Locality

Giralia Range, Western Australia, from small hill about 2 km south-south-west of Remarkable Hill, Grid Reference 1:100 000 Sheet, KV 005 485.

Formation

Miria Formation.

Age

Late Maastrichtian (Late Cretaceous).

PARATYPES

WAM 60.98a; 71.478; 71.482; 74.581 (Figure 25 F); 80.878a; 83.2884b; 83.4058; 86.1231; 86.1238.

Locality

Giralia Range, Western Australia.

Formation

Same as holotype.

Plagiostoma championi Skwarko, 1974

1974 *Plagiostoma championi* Skwarko, pp. 86-87, Pl. 24, figures 11-13

HOLOTYPE

WAM G4972 (Pl. 24, figure 11).

Locality

New Fossil Hill, Western Australia.

Formation

Newmarracarra Limestone.

Age

Bajocian (Middle Jurassic).

Remarks

Left valve.

Propeamussium (Parvamussium?) geelvinki Skwarko, 1974

1974 *Propeamussium (Parvamussium?) geelvinki* Skwarko, p. 80, Pl. 26, figures 2, 3

HOLOTYPE

WAM 66.108 (Pl. 26, figure 2).

Locality

Waggrakine, near Geraldton, Western Australia; 0.5 km south of road to Nanson (from caves near road), on west face of hills.

Formation
Newmarracarra Limestone.

Age
Bajocian (Middle Jurassic).

Remarks
Right valve.

PARATYPE
WAM 67.495 (Pl. 26. figure 3).

Locality
Waggrakine, near Geraldton, Western Australia; 0.5 km south of road to Nanson (from caves near road), on west side of hills, from talus at base of outcrop.

Formation
Newmarracarra Limestone.

Age
Bajocian (Middle Jurassic).

Remarks
Left valve.

Pseudolimea flabellulina Darragh and Kendrick, 1991

1991 *Pseudolimea flabellulina* Darragh and Kendrick, pp. 20-23, Figure 3 A-D

HOLOTYPE
WAM 87.385 (Figure 3, A, B)

Locality
Giralia Range, Western Australia, from gully draining east, 1 km north-west of West Tank, Grid Reference 1:100 000 Sheet, KV 175 883.

Formation
Miria Formation.

Age
Late Maastrichtian (Late Cretaceous).

PARATYPES
WAM 71.258 (Figure 3 C); 83.3041; 87.386 (Figure 3 D).

Locality
Giralia Range, Western Australia.

Formation
Same as holotype.

Spondylus (Spondulus) schekkermanae Darragh and Kendrick

1991 *Spondylus (Spondylus) schekkermanae* Darragh and Kendrick, pp. 72-78, Figures 20 A-E, 21 A-D

HOLOTYPE

WAM 86.1398, (Figure 20 A-E).

Locality

Giralia Range, Western Australia, from large gully draining eastward 1 km west-north-west of West Tank, Grid Reference 1:100 000 Sheet, KV 174 880.

Formation

Miria Formation.

Age

Late Maastrichtian (Late Cretaceous).

PARATYPES

WAM G10586; 60.103; 71.184a; 71.184b; 80.854A (Figure 21 D); 80.854d (Figure 21 A); 83.2872a, b; 83.2966a, e; 83.3042b (Figure 21 B); 87.472a, b (Figure 21 C).

Locality

Giralia Range, Western Australia.

Age

Late Maastrichtian (Late Cretaceous).

Tancredia (Tancredia) sandspringi Skwarko, 1974

1974 *Tancredia (Tancredia) sandspringi* Skwarko, pp. 97-98, Pl. 35, figures 1-6

HOLOTYPE

WAM 65.1145 (Pl. 35, figures 2,4,6).

Locality

Waggrakine Cutting, near Geraldton, Western Australia.

Formation

Newmarracarra Limestone.

Age

Bajocian (Middle Jurassic).

Remarks

Right valve.

PARATYPE

WAM 70.1380 (Pl. 35. figures 1,3,5).

Locality

Waggrakine, near Geraldton, Western Australia; cliff 1.4 km south of cutting on road to Nanson.

Formation

As for holotype.

Remarks

Left valve.

Tellina (Tellinides) cockburnensis Kendrick and Brearley, 1984

1925 *Tellina* spp. (part) Reath, p. 36

1984 *Tellina (Tellinides) cockburnensis* Kendrick and Brearley, pp. 182-189, Figures 1-3

PARATYPES

WAM 71.769a-m (Figure 2 A,C [i], B,D [m]).

Locality

Point Waylen, Attadale. Dept of Aviation radio signalling installation; excavation on supratidal samphire flat, in fine brown quartz-carbonate sand, 0.6-0.7 m below ground surface.

Formation

Un-named.

Age

Middle Holocene.

Remarks

Five pairs, one left and two right valves.

Timoclea (Veremolpa) kendricki Ludbrook, 1978

1978 *Timoclea (Veremolpa) kendricki* Ludbrook, pp. 80-81, Pl. 9, figures 9-12, 15, 16

HOLOTYPE

WAM 69.469a (Pl. 9, figures 9,11).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

Remarks

Left valve.

PARATYPES

WAM 69.469b (Pl. 9, figures 10,12.*); 69.469 (21 specimens); 61.42 (3 specimens).

Locality

As for holotype.

PARATYPE

WAM 62.24.

Locality

Madura Cave, Roe Plains, Western Australia, 31°59′31″S, 127°02′18″E.

PARATYPES
WAM 67.758 (2 specimens).

Locality
5.5 km east of Madura, Roe Plains, Western Australia, 31°55'00"S, 127°32'30"E.

PARATYPE
WAM 66.534 L, K.

Locality
Nurina Cave, Roe Plains, Western Australia, 32°00'00"S, 127°32'30"E.

Remarks
*In plate explanation, this specimen is incorrectly refered to as being WAM 69.469 a, holotype right valve. All specimens are from the Roe Calcarenite (Late Pliocene).

Veprecardium antiquum Ludbrook, 1978

1978 *Veprecardium antiquum* Ludbrook, pp. 55-56, Pl. 4, figures. 1-3

HOLOTYPE
WAM 69.351a (Pl. 4, figures 1,3).

Locality
Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57'57"S, 127°34'45"E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

PARATYPES
WAM 69.366 (Pl. 4, figure 2) 69.351 b-d.

Locality
As for holotype.

Formation
As for holotype.

Zenatiopsis ultima Darragh and Kendrick, 1971

1955 *Zenatiopsis angustata* Tate; Ludbrook, p. 77

1971 *Zenatiopsis ultima* Darragh and Kendrick, p. 89-91, Pl. 1, figures 1,4-6

PARATYPES
WAM 68.1259 a-d.

Locality
Cook's dam (dam behind house), Block 77 of Furneaux Estate, Section D; Flinders Island, Tasmania.

Formation
Memana Formation.

Age
Werrikooian (Plio-Pleistocene).

Remarks
Valves, a,b a pair; c,d a pair.

GASTROPODA

Apiotoma euclensis Ludbrook, 1978

1978 *Apiotoma euclensis* Ludbrook, pp. 173-174, Pl. 22, figures 22,23

HOLOTYPE
WAM 69.612 (Pl. 22, figures 22,23).

Locality
64 km west of Eucla Motel, Roe Plains, Western Australia, 31°50′00″S, 128°11′00″E.

Formation
Roe Calcarenite.

Age
Upper Pliocene.

PARATYPE
WAM 69.689.

Locality
As for holotype.

PARATYPES
WAM 66.478 (2 specimens)

Locality
Nurina Cave, Roe Plains, Western Australia, 32°00′31″S, 127°00′30″E.

PARATYPE
WAM 69.522.

Locality
Hampton Microwave Repeater Tower, Western Australia, 31°57′57″S, 127°34′45″E.

Remarks
All specimens are from the Roe Calcarenite (Late Pliocene).

Astrea (Bellastraea) hesperus Ludbrook, 1956

1956 *Astraea (Bellastraea) hesperus* Ludbrook, p. 23, Pl. 2, figure 8

1978 *Astraea (Bellastraea) hesperus* Ludbrook, pp. 101-102, Pl. 10, figures 15-20

Hypotype
WAM 69.477a (Pl. 10, figures 15-17). Designated by Ludbrook* (1978).

Locality
Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

Remarks
Ludbrook (1978, p. 101) used this hypotype for a redescription of the species which was originally described from a juvenile.

Austrocarina unicingulata Ludbrook, 1978

1978 *Austrocarina unicingulata* Ludbrook, p. 180, Pl. 22, figures 20,21; Pl. 24, figure 9

HOLOTYPE
WAM 69.533 (Pl. 22, figures 20,21; Pl. 24, figure 9).

Locality
Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

PARATYPE
WAM 66.447 (6 specimens).

Locality
Nurina Cave, Roe Plains, Western Australia, 32°00′31″S, 127°00′30″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

Austroharpa kendricki Ludbrook, 1978

1978 *Austroharpa kendricki* Ludbrook, p. 162, Pl. 18, figures 4-6

HOLOTYPE
WAM 69.560 (Pl. 18, figures 4, 5).

Locality

0.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 69.683 b (Pl. 18, figure 6); 69.579; 69.580; 69.683, a; 69.684.

Locality

1.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′05″S, 127°34′45″E.

PARATYPES

WAM 66.627 (2 specimens).

Locality

Madura Cave, Roe Plains, Western Australia, 31°59′31″S, 127°02′18″E.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene).

Austroharpa spiralistriata Ludbrook, 1978

1978 *Austroharpa spiralistriata* Ludbrook, pp. 162-163, Pl. 18, figures 7-12

HOLOTYPE

WAM 72.24 (Pl. 18, figures 7, 8).

Locality

0.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 70.31 (Pl. 18, figures 9, 10); 71.327 (Pl. 18, figures 11, 12).

Locality

As for holotype.

PARATYPE

WAM 66.476.

Locality

Nurina Cave, Roe Plains, Western Australia, 32°00′00″S, 127°32′30″E.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene).

Botelloides borda pliocenicus Ponder, 1985

1985 *Botelloides borda pliocenicus* Ponder, p. 307, Pl. 4, figure 1

HOLOTYPE

WAM 77.1536 (Pl. 4, figure 1).

Locality

Rando's No. 2 bore, 11 Spring Road, Thornlie, Western Australia, Depth 17.2-17.4 m.

Formation

Ascot Formation.

Age

Pliocene.

PARATYPES

WAM 77.739 (3 specimens).

Locality

Rando's No. 1 bore, 11 Spring Road, Thornlie, Western Australia. From spoil heaps on ground surface around head of bore. Depth uncertain.

PARATYPE

WAM 77.1781.

Locality

Rando's No. 2 bore, 11 Spring Road, Thornlie, Western Australia. Depth 17.2 m.

PARATYPE

WAM 77.1975.

Locality

Rando's No. 2 bore, 11 Spring Road, Thornlie, Western Australia. Depth 16.8 m.

Remarks

All specimens are from the lower Ascot Formation (Late Pliocene).

Botelloides ludbrookae intermedius Ponder, 1985

1985 *Botelloides ludbrookae intermedius* Ponder, pp. 312-313, Pl. 7, figures 5,7

HOLOTYPE

WAM 83.490 (Pl. 7, figures 5,7).

Locality

Paulik's bore, east end of lot 41, Semple Road, Jandakot, Western Australia. Depth 32-33.5 m.

Formation
Upper Ascot Formation.

Age
Early Pleistocene.

Remarks
Incorrectly given as figure 6 (in text on p. 313 and plate 7 should be figure 5).

PARATYPES
WAM 78.74 (22 specimens).

Locality
As for holotype.

PARATYPES
WAM 78.486 (23 specimens).

Locality
Paulik's bore, east end of lot 41, Semple Road, Jandakot, Western Australia. Depth 33.4 m.

Remarks
Number of specimens incorrectly given as 20 in text on p. 313. It should be 23.

PARATYPES
WAM 77.3955 (15 specimens).

Locality
Paulik's bore, east end of lot 41, Semple Road, Jandakot, Western Australia. Depth 33.7 m.

Remarks
All specimens are from the Upper Ascot Formation (Early Pleistocene).

Botelloides ludbrookae ludbrookae Ponder, 1985

1985 *Botelloides ludbrookae ludbrookae* Ponder, p. 312. Pl. 7, figures 4, 6

Holotype
WAM 83.489 (Pl. 7, figs 4, 6).

Locality
Rando's No. 1 bore, 11 Spring Road, Thornlie, Western Australia. Depth 17.2-17.4 m. From spoil heaps on ground surface around head of bore.

Formation
Ascot Formation.

Age
Late Pliocene.

Remarks
Incorrectly given as figure 5, in text on p. 312 and plate 7, should be figure 6. Number incorrectly given as WAM 83.490.

PARATYPE
WAM 77.746.

Locality
Same as holotype.

Remarks
Number of specimens incorrectly given as two in text on p. 312; should be one.

PARATYPE
WAM 77.1537.

Locality
Rando's No. 2 bore, 11 Spring Road, Thornlie, Western Australia. Depth 17.2-17.4 m.

Remarks
All specimens are from the Ascot Formation (Late Pliocene).

Bothriembryon consors Kendrick, 1978

1978 *Bothriembryon consors* Kendrick, pp. 54-55, Figure 4 F-H

HOLOTYPE
WAM 72.421a (Figure 4, F,G,H).

Locality
Windy Harbour, Western Australia. A shallow quarry north-east of lighthouse beside track to Salmon Beach. 34°49′14″S, 116°00′52″E.

Formation
Un-named palaeosol.

Age
Pleistocene

Remarks
This is the same place as the type locality for *B. gardneri.*

PARATYPES
WAM 72.421.b-e,j,k.

Locality
As for holotype.

Formation
As for holotype.

PARATYPE
WAM 70.901a,b.

Locality
Windy Harbour, Western Australia, quarry about 0.8 km north of townsite, on south side of tack to Salmon Beach.

PARATYPE
WAM 70.1602d.

Locality
Point d'Entrecasteaux, Western Australia. Bulldozed fossil soil, north side of track to Salmon Beach.

Formation
As for holotype.

Bothriembryon douglasi Kendrick, 1978

1978 *Bothriembryon douglasi* Kendrick, pp. 55-56, Figure 6 A

HOLOTYPE
WAM 66.1036a (Figure 6 A,B).

Locality
Sea cliff at the Carrarang-Tamala boundary fence, Edel Land, Shark Bay, Western Australia, 26°32′26″S, 113°26′42″E.

Formation
Lithified fossil soil cf. Depuch Formation.

Age
Pleistocene.

PARATYPES
WAM 66.1036b,c.

Locality
As for holotype.

Formation
As for holotype.

PARATYPES
WAM 68.1434d (Figure 6 C,D.E); 68.1434c,g,j,o.

Locality
Site of the "Zuytdorp" wreck, upper level of coastal limestone forming Zuytdorp Cliffs, Western Australia.

Formation
As for holotype?

Bothriembryon gardneri Kendrick, 1978

1978 *Bothriembryon gardneri* Kendrick, pp. 51-54, Figure 4 A-E

HOLOTYPE
WAM 70.1603a, (Figure 4A,B,E).

Locality

Point d'Entrecasteaux, Western Australia. A shallow quarry on crest of low ridge of calcarenite on north side of track from Windy Harbour to Salmon Beach, 34°49′14″S, 116°00′52″E.

Formation

Un-named palaeosol.

Age

?Pleistocene

PARATYPES

WAM 70.1603b,c.

Locality

As for holotype.

Formation

As for holotype.

PARATYPES

WAM 66.798a (Figure 4 C,D); 66.798h,w; 66.794a,b.

Locality

Point d'Entrecasteaux, Western Australia. 1.6 km north-west of Lighthouse, from a fossil soil exposed along cliff; exposure is 13 m below top of cliff.

Remarks

WAM 66.794a and b are 2 shells embedded in a laminar piece of brown calcarenite.

Bothriembryon ridei Kendrick, 1978

1978 *Bothriembryon ridei* Kendrick, pp 56-57, Figure 6 F-H

HOLOTYPE

WAM 60.434a (Figure 6 F,G,H).

Locality

Western side of Dorre Island, Western Australia; limestone cliffs opposite Disaster Cove, 24°59′52″S, 113°07′12″E.

Formation

Fossil soil cf. Depuch Formation.

Age

Pleistocene.

PARATYPES

WAM 60.434b,d,e.

Locality

As for holotype.

PARATYPE
WAM 66.660a.

Locality
Quobba Point, near Carnarvon, Western Australia about 800 m north of Blowholes.

PARATYPE
WAM 74.531a.

Locality
Western side of Dirk Hartog Island, 32 km north of the homestead.

Remarks
All specimens from fossil soils cf. Depuch Formation (Pleistocene).

Chicoreus (Chicoreus) lundeliusae Ludbrook, 1978

1978 *Chicoreus (Chicoreus) lundeliusae* Ludbrook, pp. 140-142, Pl. 16, figures 1-8

HOLOTYPE
WAM 70.1137 (Pl. 16, figures 6, 8).

Locality
Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

PARATYPES
WAM 69.504 (Pl. 16, figures 4, 7); 69.503; 70.1138; 71.333(2).

Locality
As for holotype.

PARATYPE
WAM 70.1144 (Pl. 16, figures 2, 5).

Locality
64 km west of Eucla, Roe Plains, Western Australia, 31°50′00″S, 128°11′00″E.

PARATYPES
WAM 69.631; 69.632.

Locality
88 km west of Eucla Motel, Roe Plains, Western Australia, 31°51′33″S, 127°57′00″E.

PARATYPE
WAM 70.1821.

Locality
76.6 km west of Eucla Motel, Roe Plains, Western Australia, 31°51′20″S, 128°06′30″E.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene).

Clanculus (Euriclanculus) tricingulatus Ludbrook, 1978

1978 *Clanculus (Euriclanculus) tricingulatus* Ludbrook, pp. 95-96, Pl. 20, figures 8-10

HOLOTYPE

WAM 69.476a (Pl. 20, figures 8, 9).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 69.476b (Pl. 20, figure 10); 69.476g-k.

Locality

As for holotype.

PARATYPE

WAM 66.412.

Locality

42 km south of Madura, Roe Plains, Western Australia 32°16′S, 127°06′30″E.

Remarks

All specimens from the Roe Calcarenite (Late Pliocene).

Conus (Leptoconus) petasus Ludbrook, 1978

1978 *Conus (Leptoconus) petasus* Ludbrook, pp. 182-183, Pl. 21, figures 1-5

HOLOTYPE

WAM 69.523 (Pl. 21, figures 1,2).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 69.525 (Pl. 21, figure 3); 70.38 (Pl. 21, figure 5); 69.524; 71.328*.

Locality
As for holotype.

PARATYPE
WAM 69.385 (Pl. 21, figure 4).

Locality
58 km east of Madura, Roe Plains, Western Australia, 31°55′00″S, 127°35′00″E.

PARATYPES
WAM 66.489* (25 specimens); 66.490*

Locality
1.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′05″S, 127°34′45″E.

Remarks
All specimens are from the Roe Calcarenite (Late Pliocene).

Coxiella roeae Kendrick, 1978

1978 *Coxiella roeae* Kendrick, pp. 50-51, Figure 3

HOLOTYPE
WAM 73.4 (Figure 3 A, B).

Locality
Beermullah, Western Australia. "Benalong" bore at northern part of Swan Location 5261, about 0.5 km east of Location 2680, ("Pin Pin"); 31°11′S, 115°42′E. 4.6-4.9 m below ground surface.

Formation
Unnamed lacustrine deposits.

Age
Pleistocene.

PARATYPES
WAM 73.5a (Figure 3 C,D); 73.5b (Figure 3 E,F); 73.5c (Figure 3 G, H); 73.5d (Figure 3 I,J); 73.5e (Figure 3 K,L); 73.5f (Figure 3 M,N), 73.5 (34 specimens).

Locality
As for holotype.

Formation
As for holotype.

Cyliclinatys campanula Burn, 1978

1978 *Cyliclinatys campanula* Burn, pp. 104-108, Figures 11-17

*These specimens may not be juvenile *petasus* as they possess a small pointed protoconch and coronated spire. Some of the brown matrix has been removed from the spire to show up these features.

PARATYPES

WAM 77.208 (69 specimens).

Locality

Island at east end of Herschel Lake, Rottnest Island, Western Australia.

Formation

Herschel Limestone.

Age

Middle Holocene.

Remarks

Figure 11 is one specimen from lot WAM 77.81, but is not a paratype. It was collected from a disused quarry, in shell bed, south-west corner of Lake Bagdad, Rottnest Island, Western Australia.

Dermomurex (Takia) glebosus Vokes, 1985

1985 *Dermomurex (Takia) glebosus* Vokes, pp. 54-55, Pl. 3, figures 5-7

HOLOTYPE

WAM 84.601 (Pl. 3, figure 5).

Locality

Roe Plains, pit 1.5 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia.

Formation

Roe Calcarenite.

Age

Pliocene.

PARATYPE

WAM 84.602 (Pl. 3, figure 6).

Locality

As for holotype.

Formation

As for holotype.

Remarks

Error in publication of distance of pit from Hampton Microwave Repeater Tower at 0.5 km.

Diastoma adelaidense Ludbrook, 1971

1971 *Diastoma adelaidense* Ludbrook, p. 32, Pl. 1, figures 3-7; Pl. 6, figures 9,10

PARATYPES

WAM 69.487a (Pl. 1, Figures 5, 6); 69.487b,c.

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

Ericusa subtilis (Ludbrook 1978)

1978 *Notovoluta kreuslerae subtilis* Ludbrook, p. 166, Pl. 19, figures 4, 5

1989 *Ericusa subtilis* (Ludbrook); Darragh, p. 249, Pl. 30, figures 1-4, 24

HOLOTYPE

WAM 69.515 (Ludbrook 1978, Pl. 19, figures 4, 5; Darragh 1989, Pl. 30, figures 3, 4, 24).

Locality

Roe Plains, Madura district, Western Australia. Foundation holes for Hampton Microwave Repeater Tower.

Formation

Roe Calcarenite.

Age

Late Pliocene.

Exomilus nodulosus Ludbrook, 1978

1978 *Exomilus nodulosus* Ludbrook, p. 179, Pl. 24, figure 12

HOLOTYPE

WAM 66.506a (Pl. 24, figure 12).

Locality

Nurina cave, surface of doline, Roe Plains, Western Australia, 32°00′31″S, 127°00′30″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 66.506b-d.

Locality

As for holotype.

Formation

As for holotype.

Hartungia dennanti chavani Ludbrook, 1978

1978 *Hartungia dennanti chavani* Ludbrook, pp. 119-123, Pl. 12, figures 1-14

HOLOTYPE

WAM 69.300c (Pl. 12, figures 1, 2, 3).

Locality

88 km west of Eucla, Roe Plains, Western Australia, 31°51′33″S, 127°57′00″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 69.300d (Pl. 12, figure 9); 69.300g (Pl. 12, figure 10); 69.300i (Pl. 12, figures 4, 5); 69.301b (Pl. 12, figure 7); 69.300a,b,f,h,j-z; 69.301a, c,d; 69.628.

Locality

As for holotype.

PARATYPES

WAM 69.299d (Pl. 12, figure 8); 69.299a-c.

Locality

48 km west of Eucla Motel, Roe Plains, Western Australia, 31°48′25″S, 128°24′00″E.

PARATYPE

WAM 69.305 (Pl. 12, figures 11, 12).

Locality

"Near Kuthala Pass", Roe Plains, Western Australia, 31°49′34″S, 128°13′30″E.

PARATYPES

WAM 62.39; 62.44; 62.50.

Locality

76.6 km west of Eucla Motel, Roe Plains, Western Australia 31°51′20″S, 128°06′30″E.

PARATYPES

WAM 67.778a, b.

Locality

51.5 km east of Madura, Roe Plains, Western Australia 31°55′00″S, 127°32′30″E.

PARATYPES

WAM 69.297a,b; 69.304.

Locality

0.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′36″S, 127°34′45″E.

PARATYPES

WAM 69.298a-g.

Locality

61 km east of Madura, Roe Plains, Western Australia 31°53'47"S, 127°35'00"E.

PARATYPES

WAM 69.301a-c, 69.303.

Locality

64 km west of Eucla, Roe Plains, Western Australia, 31°50'00"S, 128°11'00"E.

PARATYPE

WAM 69.306.

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57'57"S, 127°34'45"E.

PARATYPES

WAM 70.2155; 70.2156.

Locality

3 km south of Emu Well, Roe Plains, Western Australia, 31°51'20"S, 128°06'30"E.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene).

Haustellum multiplicatus darraghi (Ludbrook, 1978)

1978 *Murex (Haustellum?) darraghi* Ludbrook, p. 143, Pl. 15, figures 19,20

1988 *Haustellum multiplicatus darraghi* (Ludbrook); Ponder and Vokes, p. 120, Figures 52,62,79G, Table 49

HOLOTYPE

WAM 70.25 (Ludbrook, 1978, Pl. 15, figures 19,20; Ponder and Vokes, 1988, Figure 62A).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57'57"S, 127°34'45"E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPE

WAM 70.26.

Locality

As for holotype.

Formation

As for holotype.

Icuncula occidentalis Ludbrook, 1978

1978 *Icuncula occidentalis* Ludbrook, p.124, Pl. 20, figures 25-28

HOLOTYPE

WAM 66.418a (Pl. 20, figures 25, 26).

Locality

Nurina Cave, Roe Plains, Western Australia, 32°00′31″S, 127°00′30″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 66.418b (Pl. 20, figures 27, 28); 66.418 (181 specimens).

Locality

As for holotype.

Formation

As for holotype.

Leiopyrga gemmifera Ludbrook, 1978

1978 *Leiopyrga gemmifera* Ludbrook, p. 93, Pl. 20, figures 19,20

HOLOTYPE

WAM 69.639a (Pl. 20, figure 19).

Locality

135 km west of Eucla Motel, Roe Plains, Western Australia, 31°54′41″S, 127°25′30″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 69.639b (Pl. 20, figure 20); 69.63a, c-f; 74.1234 (2 specimens).

Locality

As for holotype.

PARATYPE

WAM 69.653.

Locality

61 km east of Madura, Roe Plains, Western Australia, 31°53′47″S, 127°35′00″E.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocence).

Liratomina? singularis Ludbrook, 1978

1978 *Liratomina? singularis* Ludbrook, p. 174, Pl. 22, figures 1-4

HOLOTYPE

WAM 69.566a (Pl. 22, figures 1,2).

Locality

0.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′36″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 69.566b (Pl. 22, Figures 3,4).

Locality

As for holotype.

PARATYPES

WAM 69.506; 69.520 (2 specimens).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene).

Lyria gracilicostata Ludbrook, 1978

1978 *Lyria gracilicostata* Ludbrook, pp. 163-164, Pl. 18, figures 15-18

PARATYPE

WAM 69.511 (Pl. 18, figures 17,18); 69.510.

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

PARATYPES

WAM 69.561 (2 specimens); 70.32 (2 specimens); 70.33.

Locality

0.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′36″S, 127°34′45″E.

PARATYPES

WAM 66.621 (2 specimens).

Locality

Madura Cave, Roe Plains, Western Australia, 31°59′31″S, 127°02′18″E.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene).

Lyria mitraeformis crassicostata Darragh, 1989

1978 *Lyria mitraeformis* Ludbrook p. 164, Pl. 18, figures 13,14

1989 *Lyria mitraeformis crassicostata* Darragh p. 212, Pl. 18, figures 7-12

HOLOTYPE

WAM 79.396a (Darragh, 1989, Pl. 28, figures 9, 10).

Locality

Roe Plains, Madura district, Western Australia. Pit 1.5 km north of Hampton Microwave Repeater Tower. Basal 0.4 m, carbonate sand.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPE

WAM 79.404b (Darragh 1989, Pl. 28, figures 7, 8).

Locality

As for holotype.

Formation

As for holotype.

Mitreola salaputium Darragh, 1989

1989 *Mitreola salaputium* Darragh p. 215, Pl. 1, figures 10,11,15,16

HOLOTYPE

WAM 79.386 (Pl. 1, figures 10, 11).

Locality

Walpole North. Gravel scrape, Thompsons Rd, 1.9 km north of Mount Frankland Rd, 24 km north of Walpole, Western Australia.

Formation

Pallinup Formation.

Age

Late Eocene.

Remarks

Error in locality details as given in the publication, Mount Franklin Road should be Mount Frankland Road (on pages 215 and 273).

Monilea euclensis Ludbrook, 1978

1978 *Monilea euclensis* Ludbrook, pp. 97-98, Pl. 10, figures 4-8, 12

HOLOTYPE

WAM 69.475a (Pl. 10, figures 4, 5, 6).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 69.475b (Pl. 10, figure 12); 70.11 (Pl. 10, figures 7, 8); 89.475 (28 specimens).

Locality

As for holotype.

PARATYPES

WAM 65.719 (2 specimens); 66.607 (2 specimens).

Locality

Madura Cave, Roe Plains, Western Australia, 31°59′31″S, 127°02′18″E.

PARATYPES

WAM 66.416 (4 specimens).

Locality

Nurina Cave, Roe Plains, Western Australia, 32°00′31″S, 127°00′30″E.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene).

Nannamoria lundeliusae Ludbrook, 1978

1978 *Nannamoria lundeliusae* Ludbrook, pp 165-166, Pl. 18, figures 20,21

1989 *Nannamoria lundeliusae* Ludbrook; Darragh, p. 232, Pl. 29, figures 8,9, Pl. 30, figures 5,6

PARATYPE

WAM 62.49.

Locality

Madura South Cave (N62), Roe Plains, Western Australia. In cave and around rim and sink hole.

PARATYPES

WAM 66.622a,b.

Locality

Madura South Cave (N62), Roe Plains, Western Australia. Near cave entrance.

PARATYPE

WAM 72.26 (Darragh, 1989, Pl. 30, figures 5, 6).

Locality

Roe Plains, Madura district, Western Australia. Pits beside access road from Eyre Highway to Hampton Microwave Repeater Tower.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene).

***Nassarius (Gussonea) wilsoni* (Ludbrook, 1978)** [Nom. praeocc.]

1978 *Amyclina wilsoni* Ludbrook, pp. 150-151, Pl. 17, figures 3,4

1981 *Nassarius (Gussonea) wilsoni* (Ludbrook) [nom. praeocc.]; Cernohorsky, pp 174-175, Figures 66, 67

HOLOTYPE

WAM 70.29b (Ludbrook 1978, Pl. 17, figures 3, 4; Cernohorsky 1981, Figure 66).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 70.29a; 61.52; 71.352.

Locality

Nurina Cave, Roe Plains, Western Australia, 32°00′31″S, 127°00′30″E.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene). According to Cernohorsky (1981) "*Amyclina wilsoni* Ludbrook, 1978, is a secondary homonym of the living *Nassa wilsoni* C.B. Adams, 1852, from the Pacific side of Panama and Central America. Both clearly belong to the genus *Nassarius* and a substitute name will have to be proposed for the homonymous *wilsoni* Ludbrook."

***Negyrina antecedens* Ludbrook, 1978**

1978 *Negyrina antecedens* Ludbrook, pp 139-140, Pl. 15, figures 13,14

HOLOTYPE

WAM 10.23 (Pl. 15, figures 23,14).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 69.499; 69.500*; 71.323 (2 specimens).

Locality

As for holotype.

PARATYPE

WAM 66.615.

Locality

Madura Cave, Roe Plains, Western Australia, 31°59′31″S, 127°02′18″E.

PARATYPES

WAM 69.553 (3 specimens).

Locality

0.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′36″S, 127°34′45″E.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene). WAM 69.500 listed (Ludbrook, 1978, p 139) as a paratype is not this species (G.W. Kendrick, pers. comm.).

Nipponatys tumida Burn, 1978

1978 *Nipponatys tumida* Burn, pp 101-102, Figure 10

PARATYPE

WAM 78.4069.

Locality

Thompsons Creek, at playground, Breamlea, Victoria. From spoil excavated from 2 m below water level.

Formation

Unnamed.

Age

Middle Holocene.

Notovoluta kreuslerae occulta Darragh, 1989

1978 *Notovoluta kreuslerae subtilis* Ludbrook, pp. 166 (in part)

1989 *Notovoluta kreuslerae occulta* Darragh, pp. 221-222, Pl. 29, figures 11-14, Figure 8

HOLOTYPE

WAM 79.389a (Darragh, 1989, Pl. 29, figures 13,14, Figure 8).

Locality

Roe Plains, Madura district, Western Australia. Pit 1.5 km north of Hampton Microwave Repeater Tower. Basal 0.4 m, carbonate sand.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPE

WAM 76.2476 (Darragh, 1989, Pl. 29, figures 11, 12).

Locality

Roe Plains, Madura district, Western Australia, Hampton Microwave Repeater Tower. Spoil from foundation holes.

Formation

Roe Calcarenite.

Age

Late Pliocene.

Notovoluta kreuslerae subtilis Ludbrook, 1978

1978 *Novoluta kreuslerae subtilis* Ludbrook, p 166, Pl. 19, figures 4,5

HOLOTYPE

WAM 69.515 (Pl. 19, figures 4, 5).

Locality

Roe Plains, Madura district, Western Australia, Hampton Microwave Repeater Tower. Spoil from foundation holes.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 69.606 (2 specimens).

Locality

64 km west of Eucla, Roe Plains, Western Australia, 31°50′00″S, 128°11′00″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

Notovoluta verconis medicata Darragh, 1989

1978 *Notovoluta verconis* Ludbrook, p. 166, Pl. 18, figure 19

1989 *Notovoluta verconis medicata* Darragh, p. 221, Pl. 29, figures 1-6

HOLOTYPE

WAM 79.2595 (Darragh, 1989, Pl. 29, figures 5, 6).

Locality

Roe Plains, Madura district, Western Australia. Pit 1.5 km north of Hampton Microwave Repeater Tower. Basal 0.4 m, carbonate sand.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPE

WAM 76.2399 (Darragh, 1989, Pl. 29, Figures 1, 2).

Locality

Roe Plains, Madura district, Western Australia. Quarries beside road from Eyre Highway to Hampton Microwave Repeater Tower.

Formation

Roe Calcarenite.

Age

Late Pliocene.

Otopleura robinsoni Ludbrook, 1978

1978 *Otopleura robinsoni* Ludbrook, p. 189, Pl. 23, figures 12,13

HOLOTYPE

WAM 66.425a (Pl. 23, figures 12, 13).

Locality

Nurina Cave, surface of doline, Roe Plains, Western Australia, 32°00′31″S, 127°00′30″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 66.425b-i.

Locality

As for holotype.

Formation
As for holotype.

Remarks
Ludbrook 1978, p. 189 notes only b-h as paratypes. There are actually 8 specimens present which with the one G.S.W.A. paratype will give the stated 9 paratypes.

Retusa (Semiretusa) nurinensis Ludbrook, 1978

Retusa (Semiretusa) nurinensis, p. 187, Pl. 24, figure 16

HOLOTYPE
WAM 66.494a (Pl. 24, figure 16).

Locality
Nurina Cave, surface of doline, Roe Plains, Western Australia, 32°00′31″S, 127°00′30″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

PARATYPES
WAM 66.494 (2 specimens).

Locality
As for holotype.

PARATYPE
WAM 69.583.

Locality
1.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′05″S, 127°34′45″E.

PARATYPE
WAM 69.618.

Locality
64 km west of Eucla, Roe Plains, Western Australia, 31°50′00″S, 128°11′00″E.

Remarks
All specimens are from the Roe Calcarenite (Late Pliocene).

Salinator lawsae Ludbrook, 1978

1978 *Salinator lawsae* Ludbrook, p. 192, Pl. 23, figures 20-23

HOLOTYPE
69.673b (Pl. 23, figures 20, 21, 22).

Locality
64 km west of Eucla, Roe Plains, Western Australia, 31°50′00″S, 128°11′00″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

PARATYPE
WAM 69.642 (Pl. 23, figure 23).

Locality
40 km east of Madura, Roe Plains, Western Australia, 31°54′41″S, 127°25′30″E.

PARATYPES
WAM 69.673a,c.

Locality
As for holotype.

PARATYPES
WAM 61.53, 61.58, 69.488.

Locality
Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′00″S, 127°34′45″E.

PARATYPES
WAM 62.36 (4 specimens), 66.608 (3 specimens).

Locality
Madura Cave, Roe Plains, Western Australia 31°59′31″S, 127°02′18″E.

PARATYPES
WAM 69.655 (4 specimens).

Locality
61 km east of Madura, Roe Plains, Western Australia, 31°53′47″S, 127°35′00″E.

Remarks
All specimens are from the Roe Calcarenite (Late Pliocene).

Tavaniotha nigella nuttalli Ludbrook, 1978

1978 *Tavaniotha nigella nuttalli* Ludbrook, pp. 152-153, Pl. 20, figures 33,34

HOLOTYPE
WAM 69.658 (Pl. 20, figures 33, 34).

Locality
61 km east of Madura, Roe Plains, Western Australia, 31°53′47″S, 127°35′00″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

PARATYPE
WAM 66.463.

Locality
Nurina Cave, Roe Plains, Western Australia 32°00′31″S, 127°00′30″E.

PARATYPE
WAM 66.617.

Locality
Madura Cave, Roe Plains, Western Australia, 31°59′31″S, 127°02′18″E.

PARATYPES
WAM 69.556 (2 specimens).

Locality
0.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′36″S, 127°34′45″E.

PARATYPE
WAM 69.679.

Locality
64 km west of Eucla, Roe Plains, Western Australia, 31°50′00″S, 128°11′00″E.

PARATYPE
WAM 70.30.

Locality
Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′00″S, 127°34′45″E.

Remarks
All specimens are from the Roe Calcarenite (Late Pliocene).

Thericium (Chavanicerithium) darraghi Ludbrook, 1971

1971 *Thericium (Chavanicerithium) darraghi* Ludbrook, p. 35, Pl. 5, figures 7, 8

HOLOTYPE
WAM 69.547 (Pl. 5, figures 7, 8).

Locality
0.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′36″S, 127°34′45″E.

Formation
Roe Calcarenite.

Age
Late Pliocene.

Thericium (Chavanicerithium) westraliense Ludbrook, 1971

1971 *Thericium (Chavanicerithium) westraliense* Ludbrook, p. 37, Pl. 5, figure 5

HOLOTYPE

WAM 70.14 (Pl. 5, figure 5).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′57″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPE

WAM 70.1133 (Pl. 5, figure 6).

Locality

As for holotype.

Formation

As for holotype.

Tylospira incilata Darragh, 1991

1991 *Tylospira incilata Darragh,* pp. 164-165, Figure 6A-F

PARATYPE

WAM 89.1225.

Locality

Flinders Island, Tasmania. Dam on lot 37 Melrose Road, 1.4 km east-north-east of junction of Melrose (No. 2) and Wingaroo Roads, Memana.

Formation

Memana Formation.

Age

Late Pliocene.

Tylospira puteana Darragh, 1991

1991 *Tylospira puteana* Darragh, pp. 166-167, Figure 7C-H

HOLOTYPE

WAM 73.455a (Figure 7C, D).

Locality

As for holotype.

Formation

As for holotype

Remarks

The species also occurs in the Late Pliocene Ascot Formation.

Tylospira pagodiformis Ludbrook, 1978

1978 *Tylospira pagodiformis* Ludbrook, pp. 127-128, Pl. 13, figures 12-15

1991 *Tylospira pagodiformis* Ludbrook; Darragh 1991, Figure 7I-J

HOLOTYPE

WAM 70.1818 (Ludbrook 1978, Pl. 13, figures 12, 13; Darragh 1991, Figure 7I-J).

Locality

76.6 km west of Eucla Motel, south side of highway, Roe Plains, Western Australia, 31°51′20″S, 128°06′30″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 69.489a (Ludbrook 1978, Pl. 13, figure 15); 69.489b (Ludbrook 1978, Pl. 13, figure 14); 69.1215.

Locality

As for holotype.

Formation

As for holotype.

Xenophora (Xenophora) flindersi ludbrookae Ponder, 1983

1978 *Xenophora neozelanica* Ludbrook, pp. 126-127, Pl. 13, figures 7-11

1983 *Xenophora (Xenophora) flindersi ludbrookae* Ponder, pp. 28-28, Figures 13d, 17i,j

HOLOTYPE

WAM 76.2473 (Ponder, 1983, Figure 17i, j).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′00″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 77.589 (5 specimens)* (Figure 13d).

Remarks

*Smallest specimen figured.

Locality

Pit 1.5 km, north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia.

PARATYPES

WAM 70.15 (Pl. 13, figures 7-9); 69.490 (Pl. 13, figures 10, 11).

Locality

As for holotype.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene).

Zemira (Eburnopsis) intermedia Ludbrook, 1978

1978 *Zemira (Eburnopsis) intermedia* Ludbrook, pp. 157-158, Pl. 17, figures 19, 20

HOLOTYPE

WAM 70.1139 (Pl. 17, figures 19, 20).

Locality

Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′00″S, 127°34′45″E.

Formation

Roe Calcarenite.

Age

Late Pliocene.

PARATYPES

WAM 70.1108 (2 specimens).

Locality

As for holotype.

PARATYPE

WAM 69.562

Locality

0.6 km north of Hampton Microwave Repeater Tower, Roe Plains, Western Australia, 31°57′36″S, 127°34′45″E.

Remarks

All specimens are from the Roe Calcarenite (Late Pliocene).

AMMONOIDEA

Brahmaites (Brahmaites) kossmati Henderson and McNamara, 1985

?1897 *Brahmaites brahma* (Forbes); Kossmat, p. 45 pars, Pl. 8, figures 7a, b

1985 *Brahmaites (Brahmaites) kossmati* Henderson and McNamara, pp. 68-71, Pl. 6, figures 11-14; Pl. 7, figure 1; text-figures 9a, b, 20

HOLOTYPE

WAM 80.786 (Pl. 6, figures 11, 12, text-figure 9b).

Locality

Southern tributary of Toothawarra Creek, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 069722 (1:100,000 sheet).

Formation

Miria Formation.

Age

Late Maastrichtian.

PARATYPES

WAM 80.964 (text-figure 9a); 83.2697 (Pl. 6, Figure 1); 83.2700.

Locality

3-6 km north-north-west of Whitlock Dam, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 115812-115832 (1:100,000 sheet).

PARATYPES

WAM 83.2698; 83.2699.

Locality

3 km north-west of West Tank, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 160895 (1:100,000 sheet).

PARATYPE

WAM 82.3083.

Locality

Creek 6.5 km east of No. 10 bore, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 026630 (1:100,000 sheet).

Remarks

All specimens are from the Miria Formation (Late Maastrichtian).

Gunnarites raggatti Henderson and McNamara, 1985

?1980 *Gunnarites kalika* Stoliczka; Blasco *et al.*, p. 487, Pl. 4, figures 2-4

1985 *Gunnarites raggatti* Henderson and McNamara, pp 60-63, Pl. 6, figures 1-4, 9, 10

HOLOTYPE

WAM 81.2542 (Pl. 6, figures 9, 10).

Locality

Creek, 6.5 km east of No. 10 bore, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 026630 (1:100,000 sheet).

Formation

Miria Formation.

Age

Late Maastrichtian.

PARATYPE
WAM 81.2513 (Pl. 6, figures 1, 2*).

Locality
As for holotype.

PARATYPE
WAM 81.2645 (Pl. 6, figures 3, 4).

Locality
Southern tributary of CY Creek, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 044657 (1:100,000 sheet).

PARATYPE
WAM 83.2708.

Locality
3 km north-west of West Tank, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 160895 (1:100,000 sheet).

Remarks
All specimens are from the Miria Formation (Late Maastrictian).

Kitchinites spathi Henderson and McNamara, 1985

1941 *Hauericeras* sp. Spath, p. 43

1941 *Kitchinites* sp. Spath, p. 45

1985 *Kitchinites spathi* Henderson and McNamara, pp. 57-58, Pl. 4, figures 5,6,9,10,14,15; text-figure 6b,c

HOLOTYPE
WAM 84.632 (Pl. 4, figures 9, 10).

Locality
CY Creek, Cardabia Station, 2-3 km east of No. 37 bore, Giralia Range, Western Australia. Grid Reference: Giralia KV 038679 (1:100,000 sheet).

Formation
Miria Formation.

Age
Late Maastrichtian.

PARATYPES
WAM 71.209a (Pl. 4, Figures 5,6, Text-figure 6c); 71.209b (Pl. 4, figures 14, 15).

Locality
As for holotype.

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*Pl. 6, fig 1 is actually specimen nos 81.2513 and 81.2581 (the smaller part), and upon putting the 2 specimens together there is some doubt as to whether they are actually parts of the same individual.

PARATYPES
WAM 80.971 (Text-figure 6b); 80.995.

Locality
3-6 km north-north-west of Whitlock Dam, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 115812-115832 (1:100,000 sheet).

PARATYPES
WAM 81.2630; 81.2703.

Locality
Southern tributary of CY Creek, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 044657 (1:100,000 sheet).

PARATYPE
WAM 81.2410

Locality
3.5 km north-north-west of Section Hill, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia JV 997579 (1:100,000 sheet).

PARATYPE
WAM 10572

Locality
"Exmouth Gulf" [Giralia Range, Western Australia].

Remarks
All specimens are from the Miria Formation (Late Maastrichtian).

***Kossmaticeras (Natalites) brunnschweileri* Henderson and McNamara, 1985**

1985 *Kossmaticeras (Natalites) brunnschweileri* Henderson and McNamara, p. 63, Pl. 6, figures 5, 6; Pl. 7, figures 2, 3, 6

HOLOTYPE
WAM 83.2709 (Pl. 7, figures 2, 3).

Locality
3 km north-west of West Tank, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 160895 (1:100,000 sheet).

Formation
Miria Formation.

Age
Late Maastrictian.

PARATYPE
WAM 83.2710 (Pl. 7, figure 6).

Locality
As for holotype.

PARATYPE

WAM 81.2710 (Pl. 6, figures 5, 6).

Locality

3.5 km north-north-west of Section Hill, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia JV 997579 (1:100,000 sheet).

PARATYPE

WAM 83.2711.

Locality

3 km north-west of West Tank, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 160895 (1:100,000 sheet).

PARATYPE

WAM 83.2712.

Locality

2.3 km north-west of West Tank, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 160870 (1:100,000 sheet).

Remarks

All specimens are from the Miria Formation (Late Maastrictian). There is an error in the explanation to Plate 7 of Henderson and McNamara (1985). Figures 3, 4 should be Figures 4, 5. Figure 5 should be Figure 6 and Figure 6 should be Figure 7.

Labeceras (Appurdiceras) decorus Henderson, 1990

1907 *Ancyloceras (?)* sp., Etheridge p. 16, Pl. 10, figures 6-9

1990 *Labeceras (Appurdiceras) decorus* Henderson, p. 124

PARATYPE

WAM 62.123.

Locality

Reefs off Charles Point, west of Darwin, Northern Territory.

Formation

Wangarlu Formation.

Age

Late Albian (Cretaceous).

Neograhmites carnarvonensis Henderson and McNamara, 1985

1985 *Neograhmites carnarvonensis* Henderson and McNamara, pp. 71-72, Pl. 6, figures 7, 8

HOLOTYPE

WAM 80.840 (Pl. 6, figures 7, 8).

Locality

Northern tributary of CY Creek, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 070708 (1:100,000 sheet).

Formation

Miria Formation.

Age

Late Maastrichtian.

Pachydiscus (Pachydiscus) jacquoti australis Henderson and McNamara, 1985

1941 *Pachydiscus* sp. nov.? Spath, p. 46

1985 *Pachydiscus (Pachydiscus) jacquoti australis* Henderson and McNamara, pp. 76-78, Pl. 8, figures 1, 2, 7-10; text figures 12a, 13b, 14, 15a

HOLOTYPE

WAM 80.1004 (Text-figure 15a).

Locality

3-6 km north-north-west of Whitlock Dam, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 115812-115832 (1:100,000 sheet).

Formation

Miria Formation.

Age

Late Maastrichtian.

PARATYPE

WAM 80.981.

Locality

As for holotype.

PARATYPES

WAM 81.2431, (Pl. 8, figures 7, 8); 81.2454 (Text-Figure 12a); 81.2352 (Text Figure 13b).

Locality

3.5 km north-north-west of Section Hill, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia JV 997579 (1:100,000 sheet).

PARATYPES

WAM 81.2525; 81.2529 (Text-Figure 12a); 82.3082 (Pl. 8 figures. 1, 2).

Locality

Creek, 6.5 km east of No. 10 bore, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 026630 (1:100,000 sheet).

PARATYPES

WAM 71.213; 81.2708; 81.2711; 81.2639 (Pl. 8, figures 9, 10).

Locality

Southern tributary of CY Creek, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 044657 (1:100,000 sheet).

PARATYPE

WAM 60.76f.

Locality

CY Creek, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 044667 (1:100,000 sheet).

PARATYPES

WAM 80.827; 80.836.

Locality

Northern tributary of CY Creek, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 070708 (1:100,000 sheet).

PARATYPE

WAM 80.783

Locality

Southern tributary of Toothawarra Creek, Cardabia Station, Western Australia. Giralia Range. Grid Reference: Giralia KV 069722 (1:100,000 sheet).

Remarks

All specimens are from the Miria Formation (Late Maastrichtian).

***Pachydiscus (Pachydiscus) neubergicus dissitus* Henderson and McNamara, 1985**

1941 *Pachydiscus* aff. *gollevillensis* (d'Orbigny); Spath, p. 45, Pl. 2, figure 1a,b

1985 *Pachydiscus (Pachydiscus) neubergicus dissitus* Henderson and McNamara, pp. 72-76, Pl. 7; Pl. 9, figures 3-6; text-figures 11, 12c, 13c.

HOLOTYPE

WAM 83.2694 (Pl. 7, figure 7).

Locality

12 km west of Giralia Homestead, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 180910 (1:100,000 sheet).

Formation

Miria Formation.

Age

Late Maastrichtian.

PARATYPES

WAM 60.54; 60.75g (Pl. 9, figures 5, 6); 80.838.

Locality

CY Creek, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 044667 (1:100,000 sheet).

PARATYPES

WAM 81.2540; 81.2555 (Text-Figures 11, 12c).

Locality

Creek, 6.5 km east of No. 10 bore, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 026630 (1:100,000 sheet).

PARATYPE

WAM 60.105 (Text-Figure 13c).

Locality

Remarkable Hill, Cardabia Station, Giralia Range, Western Australia. Grid Reference: Mia Mia KV 013502 (1:100,000 sheet).

PARATYPE

WAM 80.963 (Pl. 9, figures 3, 4, Text-figure 12c).

Locality

3-6 km north-north-west of Whitlock Dam, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 115812-115832 (1:100,000 sheet).

PARATYPE

WAM 83.2695.

Locality

2.3 km north-west of West Tank, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 160870 (1:100,000 sheet).

PARATYPE

WAM 83.2696.

Locality

6 km south of Centipede Hill, Giralia Station, Giralia Range, Western Australia. Grid Reference: Giralia KV 180945 (1:100,000 sheet).

Remarks

All specimens are from the Miria Formation (Late Maastrichtian). Plate explanation incorrectly refers to this specimen as figure 6.

Sonninia (Euhoploceras) playfordi Arkell, 1954

1954 *Sonninia playfordi* Arkell; Arkell and Playford, p. 560, Pl. 27

1989 *Sonninia (Euhoploceras) playfordi;* Hall p. 15, Figure 12A,B

NEOTYPE

WAM 86.1287 (Hall, 1989 Figure 12A, B).

Locality

Moonyoonooka Station, near Geraldton. Grid Reference 696298 (1:63,360 sheet).

Formation

Newmarracarra Limestone.

Age
Bajocian (Jurassic).

Remarks
When designating this neotype Hall (1989) believed that all type material described by Arkell and Playford (1954) was lost. However, Playford (1990) has pointed out that the holotype of *Sonninia playfordi* is not lost, but is in the collection of the University of Western Australia.

ECHINOIDEA

Amoraster paucituberculata McNamara and Ah Yee, 1989

1989 *Amoraster paucituberculata* McNamara and Ah Yee, pp. 179-181, Figures 2-4

HOLOTYPE
WAM 87.303 (Figure 2).

Locality
Portland, Victoria. Cliffs in road below Cliff Street.

Formation
Port Campbell Limestone.

Age
Bairnsdalian-Mitchellian (Middle-Late Miocene).

PARATYPES
WAM 85.1271; 85.522 (Figure 3b); 87.523.

Locality
Portland, Victoria. Coastal cliffs, 3.5 m above ground level below the lighthouse.

Formation
As for holotype.

PARATYPE
WAM 85.1356.

Locality
As for WAM 85.1271, but from a higher level, at the top of the cliff immediately below the lighthouse.

Formation
As for holotype.

PARATYPE
WAM 87.304 (Figure 4a-d).

Locality
As for holotype.

Formation
As for holotype.

PARATYPE
WAM 86.293 (Figure 3a, Figure 4e).

Locality
Muddy Creek, Victoria. 400 m downstream from wooden bridge near old Yulecart bore.

Formation
Bochara Limestone.

Age
Balcombian (latest Early Miocene).

Amoraster tuberculata McNamara and Ah Yee, 1989

1989 *Amoraster tuberculata* McNamara and Ah Yee, pp. 181-183, Figure 6a-d

HOLOTYPE
WAM 87.116 (Figure 6a-d).

Locality
Murray River, South Australia. Cliffs on Ponde Road, on east side of the Murray River, 2.5 km from the Mannum Ferry.

Formation
Mannum Formation.

Age
Longfordian (Early Miocene).

PARATYPES
WAM 86.322b,d-g.

Locality
As for holotype.

Formation
As for holotype.

Cardabia bullarensis Foster and Philip, 1978

1978 *Cardabia bullarensis* Foster and Philip, pp. 798-799, Pl. 90, figures 3, 4; Pl. 91, figures 1-3

HOLOTYPE
WAM 73.361 (Pl. 91, figures 1-3).

Locality
Giralia Range, Western Australia, south side of the Bullara-Giralia road in the vicinity of the turn-off to Jubilee Bore at approximately 22°40'S, 114°13'E, and about 6.5 km south of the bore.

Formation
Cardabia Formation, probably Pirie/Cashin member.

Age
Middle-Upper Paleocene.

PARATYPES
WAM 73.365 (Pl. 90, Figure 3); 73.366 (Pl. 90, Figure 4).

Locality
As for holotype.

Formation
As for holotype.

Echinocorys stomias McNamara, 1987b

1987 *Echinocorys stomias* McNamara, pp. 421-425, Figures 1-3

HOLOTYPE
WAM 84.442 (Figures 1A, 3B).

Locality
Giralia Range, Western Australia; gully draining east, 3.8 km north of Bullara-Giralia Road. Grid Reference: Giralia KV 175950 (1:100 000 map sheet) (Locality 17 of Henderson and McNamara 1985, text-figure 1).

Formation
Miria Formation.

Age
Late Maastrichtian.

PARATYPE
WAM 82.3088 (Figure 1B).

Locality
Giralia Range, Western Australia; 200 m south of Bullara-Giralia Road, about 12 km west of Giralia. Grid Reference: Giralia KV 180910 (1:100 000 map sheet) (Locality 15 of Henderson and McNamara 1985, text-figure 1).

PARATYPE
WAM 84.420.

Locality
Giralia Range, Western Australia; 3.6 km north-north-west of Whitlock Dam; Grid Reference: Giralia KV 115812-115832 (1:100 000 map sheet) (Locality 12 of Henderson and McNamara 1985, text-figure 1).

PARATYPE
WAM 84.433.

Locality
Giralia Range, Western Australia; 4 km west-north-west of West Tank. Grid Reference Giralia KV 145880 (1:100 000 map sheet) (Locality 20 of Henderson and McNamara 1985, text-figure 1).

PARATYPE
WAM 84.441.

Locality
Giralia Range, Western Australia; gully draining east, 3.0 km south of Bullara-Giralia Road; 1 km north-west of West Tank. Grid Reference Giralia KV 175883 (1:100 000 map sheet) (Locality 26 of Henderson and McNamara 1985, text-figure 1).

PARATYPE
WAM 86.1388 (Figure 3A).

Locality
Northern Giralia Range, Western Australia.

Remarks
All specimens are from the Miria Formation (Late Maastrichtian). WAM 84.433 incorrectly published as WAM 84.443.

Giraliaster jubileensis Foster and Philip, 1978

1978 *Giraliaster jubileensis* Foster and Philip, pp. 805-808, Pl. 89, figures 1-6; text-figures. 3,4a

HOLOTYPE
WAM 73.362 (Pl. 89, figures 1, 2, 5).

Locality
Giralia Range, lower slopes of white hill 4.5 km south-east of Jubilee Bore, (approximately 22°39.5'S, 114°14.5'E).

Formation
Cardabia Formation, probably Pirie/Cashin Member.

Age
Middle-Late Paleocene.

PARATYPES
WAM 73.363 (Pl. 89, figure 3, Text-Figure 3a); WAM 73.364 (Pl. 89 figure 4, Text-Figure 4a).

Locality
As for holotype.

Formation
As for holotype.

Goniocidaris comptoni (Glauert, 1923)

1923 *Cidaris comptoni* Glauert pp. 48-52, Pl. 3

1986a *Goniocidaris comptoni* (Glauert); McNamara pp. 353-354, Figure 1B

HOLOTYPE
WAM G3775 (Glauert 1923, Pl. 3; McNamara 1986a, Figure 1B).

Locality
Gingin, Western Australia.

Formation
Gingin Chalk.

Age
Santonian-Campanian.

Hesperaster crassus Clark, 1938

1938 *Hesperaster crassus* Clark, pp. 413-44, Figure 35A

HOLOTYPE
WAM 77.537 (Figure 35A).

Locality
Rottnest Island, on shore of a peninsula jutting into Lake Herschel; at eastern end of lake.

Formation
Herschel Limestone.

Age
Middle Holocene.

Hemiaster (Bolbaster) dolosus McNamara, 1987a

1987a *Hemiaster (Bolbaster) dolosus* McNamara, pp. 338-340, Pl. 45, figures 1-3, 6, Text-Figures 4, 8

PARATYPES
WAM 86.1206-86.1209.

Locality
Onkaparinga, South Australia. 1-200 metres south of trig.

Formation
Port Willunga Formation.

Age
Early Oligocene.

Remarks
Locality referred to as "in the sea cliffs at Seaford, South Australia" in publication.

Linthia pulchra McNamara, 1985

1985 *Linthia pulchra* McNamara, pp. 162-164, Figure 1

PARATYPE
WAM 66.637 (Figure 1B).

Locality
Bremer Bay, Western Australia.

Formation
Pallinup Siltstone.

Age
Late Eocene.

PARATYPES
WAM 85.710; 85.711

Locality
Near Albany, Western Australia.

Formation
Pallinup Siltstone.

Age
Late Eocene.

Psephoaster klydonos McNamara, 1987a

1987 *Psephoaster klydonos* McNamara, p. 350; Pl. 48, figures 1-3; Text-Figures 7c, 10, 13c

PARATYPE
WAM 86.296 (Pl. 48, Figure 2).

Locality
Murray River, South Autralia.

Formation
Mannum Formation.

Age
Longfordian (Early Miocene).

CRINOIDEA

Calceolispongia abundans Teichert, 1949

1949 *Calceolispongia abundans* Teichert, pp. 54-59, Pl. 1, figures 2, 7, 12, 21; Pl. 6, figures 21, 22; Pl. 8, figure 2; Pl. 9; Pl. 10, figures 1-10, 13-38; Pl. 11; Pl. 12

HOLOTYPE
WAM G8501 (Pl. 9, figures 3-5).

Locality
Syncline west of Coolkilya Pool, Minilya River at levels between 100 and 135 feet above the base of the Calceolispongia bed; Wandagee Station, Western Australia.

Formation
Quinnanie Shale.

Age
Early Permian.

Remarks
Well preserved dorsal cup from which right posterior and left anterior basal plates are missing.

Notiocatillocrinus callytharraensis Webster, 1987

1987 *Notiocatillocrinus callytharraensis* Webster, pp. 109-112, Figures 7A-D, 8A-J

PARATYPES
WAM 84.649 (Figure 7A); WAM 84.650 (Figure 7B).

Locality
Wooramel River, 0.8 km west of Callytharra Springs, Western Australia.

Formation
Callytharra Formation.

Age
Permian.

Tapinocrinus ingrami Webster, 1987

1987 *Tapinocrinus ingrami* Webster, pp. 120-121, Figure 12 E-L

HOLOTYPE
WAM 84.658 (Figure 12 I-L).

Locality
Wooramel River, 0.8 km west of Callytharra Springs, Western Australia.

Formation
Callytharra Formation.

Age
Sakmarian (Early Permian).

Tapinocrinus macurdai Webster, 1987

1987 *Tapinocrinus macurdai* Webster, pp. 118-120, Figure 12M-DD

HOLOTYPE
WAM 84.656 (Figure 12Q-T).

Locality
Wooramel River, 0.8 km west of Callytharra Springs, Western Australia.

Formation
Callytharra Formation.

Age
Sakmarian (Early Permian).

PARATYPE
WAM 84.657 (Figure 12U-W).

Locality
As for holotype.

Formation
As for holotype.

BLASTOIDEA

Cheirocrinus merrileesi Brown, 1964

1964 *Cheirocrinus merrileesi* Brown, pp. 4-7, Figures 3-5

HOLOTYPE
WAM 60.167 (Figures 3-5).

Locality
Emanual Creek, 180 miles east-south-east of Derby, Western Australia.

Formation
Emanual Formation.

Age
Tremodocian/Arenigian (Ordovician).

Remarks
Lower portion of a laterally compressed theca.

CONCAVICARIDA

Concavicaris campi Briggs and Rolfe, 1983

1983 *Concavicaris campi* Briggs and Rolfe, pp. 258-260, Pl. 35, figure 13; Pl. 36, figures 1, 4, 5; Text-Figure 3

HOLOTYPE
WAM 82.3171 (Pl. 35 figure 13; Pl. 36, figure 1).

Locality
Locality No. 14 (Miles 1971b, p. 105, Figure 1). Stromatoporoid Camp area. Emanuel Range, Western Australia.

Formation
Gogo Formation.

Age
Frasnian (Late Devonian).

Remarks
Carapace.

Concavicaris glenisteri Briggs and Rolfe, 1983

1983 *Concavicaris glenisteri* Briggs and Rolfe, pp. 256-258, Pl. 35, figures 8, 12; Pl. 36, figures 6, 7; Text-Figure 3

HOLOTYPE

WAM 82.3170 (Pl. 35, figure 8).

Locality

Locality No. 55 (Miles 1971b, p. 105, Figure 1). Long's Well area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Carapace.

PARATYPE

WAM 82.3172 (Pl. 35, figure 6).

Locality

Locality No. 20 (Miles 1971b, p. 105, Figure 1). Stromatoporoid Camp, Emanual Range, Western Australia.

Formation

As for holotype.

Remarks

Medium sized carapace.

PARATYPE

WAM 82.3174 (Pl. 36, figure 7).

Locality

Locality No. 51 (Miles 1971, p. 105, Figure 1). Long's Well area, Emanual Range, Western Australia.

Formation

As for holotype.

Remarks

Damaged carapace, with anterior portion missing.

Concavicaris milesi Briggs and Rolfe, 1983

1966 *Concavicaris* sp. nov. 1 aff. *C. elytroides* (Meek); Rolfe, p. 192

1983 *Concavicaris milesi* Briggs and Rolfe, pp. 252-256, Pl. 35, figures 3,4, 14-18; Pl. 36, figures 2,3; Pl. 37, figures 7,10,11; Text-Figure 1

PARATYPE

WAM 82.3173 (Pl. 36, figure 3).

Locality

Locality No. 23 (Miles 1971b, p. 105, Figure 1). Stromatoporoid Camp area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Carapace of juvenile, right valve.

PARATYPE

WAM 82.3177 (Pl. 37, figures 7, 10, 11).

Locality

Locality No. 63 (Miles 1971b, p. 105, Figure 1). Type locality area, Pillara Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Internal structures inside carapace.

Concavicaris playfordi Briggs and Rolfe, 1983

1966 *Concavicaris* sp. nov. 2, Rolfe, p. 192

1983 *Concavicaris playfordi* Briggs and Rolfe, p. 256, Pl. 35, figures 6, 9, 10, 11; Pl. 36, figure 10; Text-Figure 3

HOLOTYPE

WAM 82.3168 (Pl. 35, figure 9).

Locality

Locality No. 22 (Miles, 1971b, p. 105, Figure 1). Stromatoporoid Camp area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Carapace. Number incorrectly published as WAM 82.3170.

PARATYPE

WAM 82.3180 (Text-Figure 4A 7).

Locality

Locality No. 16 (Miles 1971, p. 105, Figure 1). Big Dam Bore area, Emanual Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Damaged carapace.

PARATYPE

WAM 82.3179 (Text-Figure 4A 1).

Locality

Locality No. 40 (Miles 1971b, p. 105, Figure 1). No. 10 Bore area, Emanuel Range, Western Australia.

Formation

As for holotype.

Remarks

Damaged carapace.

Concavicarid trunks (internal structures of concavicarids)
Type B [Briggs and Rolfe, 1983]

PARATYPE

WAM 82.3175 (Pl. 37 figure 1, 3).

Locality

Locality No. 14 (Miles 1971, p. 105, Figure 1). Stromatoporoid Camp area, Emanual Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

PARATYPE

WAM 82.3176 (Pl. 37, figure 2).

Locality

Locality No. 37 (Miles 1971b, p. 105, Figure 1). Stromatoporoid Camp area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

PARATYPE

WAM 82.3178 (Pl. 37, figure 9).

Locality

Locality No. 30 (Miles 1971b, p. 105, Figure 1). Stromatoporoid Camp area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Harrycaris whittingtoni Briggs and Rolfe, 1983

1969 *Concavicaris* sp. nov. 3, Rolfe *in* Brunton, Miles and Rolfe, p. 81

1983 *Harrycaris whittingtoni* Briggs and Rolfe, pp. 251-252, Pl. 35, figures 1, 2, 5, 7; Pl. 36, figure 12; Pl. 37, figure 12; Text-Figure 1

HOLOTYPE

WAM 83.3166 (Pl. 35, figure 1; Pl. 36, figure 12).

Locality

Locality No. 66 (Miles 1971b, p. 105, Figure 1). Type locality area, Pillara Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Carapace.

PARATYPE

WAM 82.3167 (Pl. 35, figure 7).

Locality

Locality No. 47 (Miles 1971b, p. 105, Figure 1). No. 10 Bore area, Emanuel Range, Western Australia.

Formation

As for holotype.

Remarks

Carapace.

PARATYPE

WAM 82.3181 (Text-Figure 4C).

Locality

Locality No. 14 (Miles 1971b, p. 105, Figure 1). Stromatoporoid Camp area. Emanuel Range, Western Australia.

Formation
As for holotype.

Remarks
Damaged carapace.

OSTRACODA

Graphiadactyllis alveiformis Fleming in Foster, Palmieri and Fleming, 1985

1985 *Graphiadactyllis alveiformis* Fleming *in* Foster, Palmieri and Fleming, pp. 98-99, Pl. 12, figures 6-10

HOLOTYPE
WAM 83.2746 (Pl. 12, figure 10).

Locality
Fossil Cliff, from the type section of the Fossil Cliff Member of the Holmwood Shale, Irwin River, Western Australia.

Formation
Fossil Cliff Member of the Holmwood Shale.

Age
Sakmarian (Early Permian).

Healdia irwinensis Fleming *in* Foster, Palmieri and Fleming, 1985

1985 *Healdia irwinensis* Fleming *in* Foster, Palmieri and Fleming, pp. 97-98, Pl. 11, figures 11-15

HOLOTYPE
WAM 83.2733 (Pl. 11, figure 14).

Locality
Beckett Gully, 7 km south of Fossil Cliff Member type locality, Irwin River, Western Australia.

Formation
Fossil Cliff Member of the Holmwood Shale.

Age
Sakmarian (Early Permian).

Roundyella ludbrookae Fleming *in* Foster, Palmieri and Fleming, 1985

1985 *Roundyella ludbrookae* Fleming *in* Foster, Palmieri and Fleming, p. 97, Pl. 10, figures 4-7

HOLOTYPE
WAM 83.2722 (Pl. 10, figure 6).

Locality

Beckett Gully, 7 km south of Fossil Cliff Member type locality, Irwin River, Western Australia.

Formation

Fossil Cliff Member of the Holmwood Shale.

Age

Sakmarian (Early Permian).

Zarinia ludbrookae Fleming in Foster, Palmieri and Fleming, 1985

1985 *Zarinia ludbrookae* Fleming *in* Foster, Palmieri and Fleming, p. 99, Pl. 12, figures 11-14.

HOLOTYPE

WAM 83.2750 (Pl. 12, figures 11, 14).

Locality

Fossil Cliff, from the type section of the Fossil Cliff Member of the Holmwood Shale, Irwin River, Western Australia.

Formation

Fossil Cliff Member of the Holmwood Shale.

Age

Sakmarian (Early Permian).

CIRRIPEDA

Calantica (Scillaelepas) cardabia Buckeridge, 1983

1983 *Calantica (Scillaelepas) cardabia* Buckeridge, pp. 32-33, Figure 21; Pl. 1e-h

HOLOTYPE

Southern tributary of CY Creek, Cardabia Station, Giralia Range, Western Australia, Grid Reference: Giralia KV 044657 (1:100,000 sheet).

Formation

Miria Formation

Age

Late Maastrichtian.

Remarks

A scutum.

PARATYPES

WAM 71.273a,b; 71.274 (Pl. 1g).

Locality

As for holotype.

Formation

As for holotype.

Remarks
Carinae and 71.274 a tergum.

PARATYPE
WAM 74.587 (Pl.1e, f).

Locality
5 km north from Remarkable Hill, Cardabia Station, Giralia Range, Western Australia.

Formation
As for holotype.

Remarks
A scutum.

PARATYPE
WAM 75.1221

Locality
Section Hill, Cardabia Station, Giralia Range, Western Australia.

Formation
As for holotype.

Remarks
A carina.

Calantica (Scillaelepas) ginginensis (Etheridge, 1913)

1913 *Calantica (?) ginginensis* Etheridge, pp. 13-14; Pl. 3, figures 4, 5

1923 *Calantica (Scillaelepas) ginginensis* (Etheridge); Withers, pp. 64-66, Pl. 1, figures 1-8

1983 *Calantica (Scillaelepas) ginginensis* (Etheridge); Buckeridge, p. 33, Pl. 3d, e

HYPOTYPE
WAM G3749 (Withers 1923, Pl. 1, figures 1-3).

Locality
Gingin, Western Australia.

Formation
Gingin Chalk.

Age
Santonian-Campanian.

Remarks
A carina.

HYPOTYPE
WAM G3750 (Withers 1923, Pl. 1, figures 4, 5).

Locality
Gingin, Western Australia.

Formation
Gingin Chalk.

Age
Santonian-Campanian.

Remarks
A tergum. Buckeridge (1983) incorrectly referred to this specimen as the holotype. The holotype is not held by the Western Australian Museum as inferred.

Calantica (Scillaelepas) kendricki Buckeridge, 1983

1983 *Calantica (Scillaelepas) kendricki* Buckeridge, pp. 34-35, Figure 23, Pl. 1a-d

HOLOTYPE
WAM 77.2947 (Pl. 1a, b).

Locality
Meanarra Hill, Kalbarri, Western Australia.

Formation
Toolonga Calcilutite.

Age
Santonian (Late Cretaceous).

Remarks
A carina.

PARATYPES
WAM 77.2948; 75.19; 74.1192 (Pl. 1c, d).

Locality
As for holotype.

Formation
As for holotype.

Remarks
WAM 77.2948 a carina, 75.19 a scutum, and 74.1192 a scutum.

PARATYPE
WAM G7194.

Locality
White Cliff, about 4 miles north-west of Murchison House, Gantheaume Bay, Western Australia.

Formation
Toolonga Calcilutite.

Age
Santonian (Late Cretaceous)

Remarks
A scutum. Errors in publication: 1. Localities of Meanarra Hill and White Cliff were incorrectly given as Menarra Hill and White Cliffs respectively. 2. Plate 1 a.b. incorrectly referred to as G7519, should be 77.2947.

Loriculina fosteri Buckeridge, 1983

1983 *Loriculina fosteri* Buckeridge, pp. 55-56, Figure 41, Pl. 2d

HOLOTYPE
WAM 77.2949 (Figure 41; Pl. 2d).

Locality
Molecap Hill quarry, Gingin.

Formation
Gingin Chalk.

Age
Santonian-Campanian (Late Cretacous).

Remarks
A scutum. The locality, Molecap Hill, was incorrectly published as Molecape Hill and the age of the Gingin Chalk is Santonian-Campanian, not Maastrichtian.

Neoscalpellum glauerti (Withers, 1926b)

1926b *Scalpellum (Neoscalpellum)* glauerti Withers, p. 102-104, Pl. 11, figures 1-6

1935 *Scalpellum (Neoscalpellum) glauerti* Withers, p. 301-302, Pl. 39, figures 3-6

1983 *Neoscalpellum glauerti* (Withers); Buckeridge, p. 51, Pl. 2a-c

HOLOTYPE
WAM G4194 (Withers 1926, Pl. 11, figures 3, 4).

Locality
Round Hill, Dandaragan, Western Australia.

Formation
Gingin Chalk.

Age
Santonian-Campanian (Late Cretaceous).

Remarks
A tergum.

PARATYPE
WAM G4461 (Withers 1926, Pl. 11, Figures 1, 2)

Locality
One Tree Hill, Gingin, Western Australia.

Formation
As for holotype.

Remarks
A scutum.

Pollicepes aboriginalis Buckeridge, 1983

1983 *Pollicepes aboriginalis* Buckeridge, pp. 29-30, Figure 17, Pl. 3a, b.

HOLOTYPE
WAM 77.3531 (Figure 17; Pl. 3a, b).

Locality
Kayanaba property approximately 4 km north-east of Dandaragan townsite Western Australia.

Formation
Gingin Chalk.

Age
Santonian-Campanian (Late Cretaceous).

Remarks
A scutum.

PISCES

CHONDRICHTHYES

Helicoprion davisii (Woodward, 1886)
(Figure 1)

1886 *Edestus davisii* Woodward, pp. 1-7, Pl. 1

1940 *Helicoprion davisii* (Woodward); Teichert, pp. 145-148, Pl. 22, figures 1-4; Pl. 23, figures 1-4

1964 *Helicoprion davisii* (Woodward); Crespin, p. 103

HOLOTYPE
WAM G9080 [Plaster cast figured Pl. 22 figure 1 Teichert, 1940]; Figure 1 herein.

Locality
In bed of Arthur River (a tributary of the Gascoyne River), Western Australia.

Formation
Unknown.

Age
? Early Permian.

Remarks
External mould, consisting of 14 complete teeth (part of two more) representing more than one third of a volution.

PLACODERMI

Arthrodira

Bruntonichthys multidens Dennis and Miles, 1980

1980 *Bruntonichthys multidens* Dennis and Miles, pp. 44-54, Figures 1-5

HOLOTYPE

WAM 70.4.258 (Figures 1-5).

Locality

Locality No. 52 (Miles 1971b, p. 105, Figure 1). Long's Well area, Emanuel Range, Western Australia.

Formation

Gogo Formation

Age

Frasnian (Late Devonian).

Remarks

Partially disarticulated left side of head, with a complete set of gnathals and a fragment of the articular jaw cartilage. Trunk armour plates consist of the median dorsal, posterior laterals, interolaterals and anterior and posterior median ventrals. Also a well preserved parasphenoid and a complete sclerotic ring. Specimen embedded in epoxy resin. Given British Museum (Natural History) No. P57632.

Bullerichthys fascidens Dennis and Miles, 1980

1980 *Bullerichthys fascidens* Dennis and Miles, pp. 54-64, Figures 6-12

HOLOTYPE

WAM 70.4.259 (Figures 6-12).

Locality

Locality No. 72 (Miles 1971b, p. 105, Figure 1). Bugle Gap area, near Ross Hill, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Articulated nuchal, central, postorbital and marginal plate along with individual spinal and interolateral plates, a part of the suborbital lamina of suborbital plate, an incomplete plate with large overlap areas and several large unidentifiable bone framents. A complete set of gnathal elements, a parasphenoid and four sclerotic plates. Specimen embedded in epoxy resin. Given British Museum (Natural History) No. P52554.

Camuropiscis concinnus Dennis and Miles, 1979a

1979a *Camuropiscis concinnus* Dennis and Miles, pp. 4-27, Figures 2-4, 7-14, 16, 17

HOLOTYPE

WAM 70.4.255 (Figures 2, 3, 4, 8, 16 ,17)

Locality

Locality No. 47 (Miles 1971b, p. 105, Figure 1). Number 10 Bore area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Complete skull and trunk shield, an anterior and posterior superognathal, both inferognathals (one incomplete), fragments of jaw cartilages, pelvic girdle and sub-median-dorsal plate. Given British Museum (Natural History) No. P50976.

Camuropiscis laidlawi Dennis and Miles, 1979a

1979a *Camuropiscis laidlawi* Dennis and Miles, pp. 7-27, Figures 5, 6, 15

HOLOTYPE

WAM 91.2.1 (Figures 5, 6, 15).

Locality

Locality No. 20? (Miles 1971b, p. 105, Figure 1). Stromatoporoid Camp area? Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

An almost complete uncrushed head and trunk shield, anterior and posterior superognathals, left inferognathal, sub-median-dorsal plate and a few vertebrae. Specimen embedded in resin. In Dennis and Miles (1979) no W.A. Museum number was given, only the provisional number BM(NH) P50866-7.

Eastmanosteus calliaspis Dennis-Bryan, 1987

1971b *Eastmanosteus* sp. Miles p. 104

1987 *Eastmanosteus calliaspis* Dennis-Bryan, pp. 3-47, Figures 4-30

HOLOTYPE

WAM 70.4.264 (Figures 4; 5; 9A; 12A, B, D, F; 13; 29B).

Locality

Locality No. 77 (Miles 1971b, p. 105, Figure 1). Paddy's Spring area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Almost complete, articulated skull-roof and right half of the trunk-shield.

Fallacosteus turneri Long, 1990

1988b *Fallacosteus turneri,* Long p. 439, Figure 3 (bottom half) (nomen nudum)

1990 *Fallacosteus turneri,* Long pp. 51-60, Figures 1-4, 5B

HOLOTYPE

WAM 86.9.697 (Figures 1, 2, 3, 4, 5B).

Locality

Near Location 55 (Miles 1971b, p. 105, Figure 1). Long's Well area, about 80 km east of Fitzroy Crossing, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Complete skull, trunk armour, jaws and pelvic girdle.

Harrytoombsia elegans Miles and Dennis, 1979

1971a Miles, Figure on p. 12

1975 Typical coccosteid with well-developed spinal plates and a strongly-tumid venter, Gardiner and Miles, p. 75

1979 *Harrytoombsia elegans* Miles and Dennis, pp. 33-59, Figures 4-14

HOLOTYPE

WAM 70.4.254 (Figures 4-14).

Locality

Locality No. 47 (Miles 1971b, p. 105, Figure 1). No. 10 Bore area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Almost complete skull and trunk-shield, parasphenoid, an anterior and posterior superognathal, both inferognathals, fragments of jaw cartilages and the sub-median dorsal plate. Given British Museum (Natural History) No. P50914.

Holonema westolli Miles, 1971b

1969 'a form . . . with a holonematid-like ornamentation' Brunton, Miles and Rolfe, p. 82

1971a *Holonema* Miles, p. 213

1971b *Holonema westolli,* Miles, p. 104-177, Figures 2-93

HOLOTYPE

WAM 70.4.243 (Pl. 17, figure 20; Figure 73; Text-Figures 64, 66A, B; 70A; 90A, B).

Locality

Locality No. 80 (Miles 1971b, p. 105, Figure 1). Paddy's Spring area, Emanuel Range, Western Australia. Approximately 18°28′30″S, 125°59′30″E.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Trunk plates, part of the skull-roof, extra-scapular plates and part of the scapulocoracoid. Given British Museum (Natural History) No. P50984 by Miles (1971b).

Incisoscutum ritchiei Dennis and Miles, 1981

1981 *Incisoscutum ritchiei* Dennis and Miles, pp. 214-255, Figures 2-25

HOLOTYPE

WAM 70.4.261 (Figures 3, 5, 6, 8C, 9B, C, 10, 16, 19D, E).

Locality

Locality No. 85 (Miles 1971b, p. 105, Figure 1). Paddy's Spring area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

A complete articulated skull-roof and trunk-shield (somewhat damaged dorsally) with right scapulocoracoid attached, sub-orbitals, a postsuborbital with incomplete

quadrate attached, the right autopalatine and posterior superognathal, the left anterior superognathal and both inferognathals. There is also an articular, extrascapular plate, part of the pelvic girdle and several vertebral arches. Given British Museum (Natural History) No. P50929.

Kendrickichthys cavernosus Dennis and Miles, 1980

1980 *Kendrickichthys cavernosus* Dennis and Miles, pp. 67-80, Figures 13-21

HOLOTYPE

WAM 70.4.260 (Figures 13-15, 17-19).

Locality

Locality No. 51 (Miles 1971b, p. 105, Figure 1). Long's Well area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

An incomplete head, partially reconstructed and a few disarticulated trunk armour plates. Many of the bones are broken. Given British Museum (Natural History) No. P51009.

Latocamurus coulthardi Long, 1988

1988a *Latocamurus coulthardi* Long, pp. 238-256, Figures 1-15

1990 *Latocamurus coulthardi* Long, pp. 54,59, Figure t (part)

HOLOTYPE

WAM 86.9.670 (Figures 4-9; 11; 12A, B, C).

Locality

Emanuel Range, Western Australia. Approximately 100 m south-west of 'Stromatoporoid Camp' (close to Locality No. 20 of Miles, 1971b, Figure 1).

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Complete armour, partly articulated, prepared out as two halves by the resin transfer method.

PARATYPE

WAM 86.9.699 (Figures 1-3; 10; 12D, E; 13-14).

Locality
Emanuel Range, Western Australia. North-eastern side of Paddy's Valley.

Formation
Gogo Formation.

Age
Frasnian (Late Devonian).

Remarks
Complete specimen.

Pinguosteus thulborni Long, 1990

1988b *Pinguosteus thulborni* Long p. 440 (Nomen nudum)

1990 *Pinguosteus thulborni* Long pp. 51, 56, 58, 60-62, Figures 7B-I

HOLOTYPE
WAM 86.9.698.

Locality
Gogo Station, near Fitzroy Crossing, Western Australia. Close to Locality 79 of Miles 1971b, Figure 1.

Formation
Gogo Formation.

Age
Frasnian (Late Devonian).

Remarks
The specimen is known from a partial left side of the trunkshield and an unusual rod-like bone.

Rolfosteus canningensis Dennis and Miles, 1979b

1979b *Rolfosteus canningensis* Dennis and Miles, pp. 300-316, Figures 2-11

1984 *Rolfosteus canningensis* Long, pp. 18, 19

1988a *Rolfosteus canningensis* Long, pp. 254-256

1990 *Rolfosteus canningensis* Long, pp. 53, 54, 56, 59, Figure 6 (part)

HOLOTYPE
WAM 70.4.256 (Figures 2, 4, 8).

Locality
Locality 26 Stromatoporoid Camp (Miles, 1971b, Figure 1) Emanuel Range, Western Australia, 18°33'S, 125°53'E.

Formation
Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

An almost complete, articulated head with an incomplete and partly articulated trunk shield. Also a submedian-dorsal plate, an almost complete set of gnathal elements and fragments of jaw cartilages. Given British Museum (Natural History) No. P50990.

Torosteus pulchellus Gardiner and Miles, 1990

1990 *Torosteus pulchellus* Gardiner and Miles, Figures 17, 18, 20

HOLOTYPE

WAM 88.2.7 (Figures 17, 18, 20).

Locality

Locality No. 90 (Miles, 1971b, p. 105, Figure 1). Paddy's Spring area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Partial skull-roof including sclerotic plates, cheek, lower jaw and partial trunk-shield. Given British Museum (Natural History) No. P50917.

Torosteus tuberculatus Gardiner and Miles, 1990

1990 *Torosteus tuberculatus* Gardiner & Miles, Figures 5, 6, 8, 9, 10, 11, 14, 16

HOLOTYPE

WAM 70.4.262 (Figures 5, 6, 8, 9, 11, 14, 16).

Locality

Locality No. 47 (Miles, 1971b, p. 105, Figure 1), east of Fitzroy Crossing, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Almost complete armour, good headshield with jaws and part of nasal capsule; incomplete trunkshield.

Tubonasus lennardensis Dennis and Miles, 1979b

1979b *Tubonasus lennardensis* Dennis and Miles, pp. 317-322, Figures 12-17

HOLOTYPE

WAM 70.4.257 (Figures 12-17).

Locality

Locality No. 89 (Miles 1971b, p. 105, Figure 1). Paddy's Spring area. Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

An almost complete head with an articulated anterior right side of the trunk-shield. A complete set of superognathals, plus the left inferognathal with jaw cartilage fragments and three sclerotic plates. Given British Museum (Natural History) No. P50938.

Westralichthys uwagedensis Long, 1987

1987 *Westralichthys uwagedensis* Long, pp. 519-530, Figures 1-9, 10C

HOLOTYPE

WAM 86.9.664 (Figures 1-9, 10C).

Locality

South-eastern Canning Basin, Western Australia.

Formation

Probably Virgin Hills Formation.

Age

Middle Famennian (Late Devonian).

Remarks

Formerly UWA 32614. A largely complete skull. The specimen lacks the central and anterior regions of the skull roof but is otherwise well preserved and has not undergone post-mortem compaction. The three-dimensional shape of the skull roof is clear.

Ptyctodontida

Campbellodus decipiens Miles and Young, 1977

1969 Tooth-plates resembling those of *Rhynchodus,* Brunton, Miles and Rolfe, pp. 80-83.

1971a Tooth-plates which recall those of *Ptyctodus,* Miles, pp. 312-314

1975 *Ptyctodus* sp. Gardiner and Miles, pp. 73-79

1977 *Campbellodus decipiens* Miles and Young, pp. 147-155, Pl. 1, Pl. 2A, B, F, Pl. 4A, Figures 8-14.

1987 *Ptyctodus* sp. Gardiner and Miles, pp. 73-79

1987 *Campbellodus decipiens,* Long pp. 203, 204, Figures 1F, G, 3.

1988b *Campbellodus decipiens,* Long pp. 443, 444, Figure 7

HOLOTYPE

WAM 70.4.252 (Figures 8, 9, 10, 11, Pl. 1C, D, E; Pl. F2, A, B, F; Pl. 4,A).

Locality

Locality No. 73? (Miles, 1971b, p. 105, Figure 1). Paddy's Spring area, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Disarticulated right upper (incomplete) and lower toothplates, a right preorbital (incomplete) and post orbital, the post-branchial lamina of a right anterior lateral, and ascending lamina of a right anterior ventrolateral, a right submarginal and a few indeterminate fragments. Given British Museum (Natural History) No. P50905.

Ctenurella gardineri Miles and Young, 1977

1977 *Ctenurella gardineri* Miles and Young, pp. 155-194, Pl. 3, Pl. 4B, Pl. 5, Figures 16-35

1986 *Ctenurella gardineri,* Forey and Gardiner pp. 44, 46-50, Figures 1-3

1988b *Ctenurella gardineri,* Long, pp. 444

HOLOTYPE

WAM 70.4.253 (Figures 16, 17, 18B, 12B, C, 23-28; Pl, 2D, E; Pl. 3B; Pl. 4B).

Locality

*Location 36, 47 73, 76 or 89 (Miles 1971b, p. 105, Figure 1) near Gogo Station. Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

A well ossified specimen showing dermal bones of the head and trunk, toothplates and supporting visceral arch bones, parts of the endocranium, and synarcual. Specimen embedded in epoxy resin. Given British Museum (Natural History) No. P57637.

*Exact locality not given in paper by Miles and Young (1977).

OSTEICHTHYES

Actinopterygii

Mimia toombsi Gardiner and Bartram, 1977

1970 Devonian stegotrachelid Gardiner, p. 285, Figure 3

1977 *Mimia toombsi* Gardiner and Bartram, pp. 228-237, Figures 1, 2

1984 Mimia toombsi Gardiner, pp. 173-405 (various references) Figures 1-6, 11-26, 33-34, 50, 53-57, 60-63, 65, 68, 70-72, 75A, 79-82, 84-86, 90-93, 97, 98, 101-102, 104, 107-108, 112, 113, 116, 117, 118A-C, E, G, 119, 121-130, 137, 139A, 140, 141A, 143, 145, Pl. 1, 2a-c, 4, 5

HOLOTYPE

WAM 70.4.245 (Gardiner, 1984 Pl. 2b (scale only).

Locality

Locality No. 80 (Miles 1971b, p. 105, Figure 1). Paddy's Spring area, Emanuel Range, Western Australia. Approximately 18°28'30"S, 125°59'30"E.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

A partly disarticulated specimen lacking fins. Specimen not figured in Gardiner and Bartram (1977).

Moythomasia durgaringa Gardiner and Bartram, 1977

1973 Gogo palaeoniscid 'B', Gardiner, pp. 105-135, Figures 5 and 7 only

1977 *Moythomasia durgaringa* Gardiner and Bartram, pp. 238-241, Figures 7, 8B

1984 *Moythomasia dugaringa* Gardiner pp. 173-405 (various references) Figures 7-10, 27-32, 45-48, 51052, 58-59, 64, 66-67, 69, 73-74, 83-87, 94-96, 99, 100, 103, 105, 106, 109-111, 114, 115, 118D, F, 131-136, 138, 139B, 141B, 142, 144, Pl. 2d-f, 3.

HOLOTYPE

WAM 70.4.244 (Gardiner 1984, Pl. 2d (scale only)).

Locality

Gogo Station, Emanuel Range, Western Australia.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Partly disarticulated head and body in counterpart. Specimen not figured under WAM number. Figured under BM number (though not noted in text), if so BMNH P53221 only specimen figured.

Dipnoi

Chirodipterus australis Miles, 1977

1969 "blunt snouted species . . ." Brunton, Miles and Rolfe, p. 82

1975 *"Chirodipterus"* Gardiner and Miles, p. 75

1977 *Chirodipterus australis* Miles, pp. 10-12, Figures 2a-c, 3c,d, 4c,d, 15-18, 34-37, 45, 47, 48, 49b, 60c-f, 64-67, 76, 83, 84, 102-106, 116-120, 129, 141-144, 147, 149.

HOLOTYPE

WAM 70.4.249 (Figures 2c, 102b, 103b, 104, b, 118d, 143).

Locality

Locality No. 80 (Miles 1971b, p. 105, Figure 1). Paddy's Spring area. Emanuel Range, Western Australia. Approximately 18°28′30″S, 125°59′30″E.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Almost complete skull and lower jaw, and parts of shoulder girdle and gill skeleton. Given British Museum (Natural History) No. P52584.

Chirodipterus paddyensis Miles, 1977
(Figure 3)

1975 *"Chirodipterus"* Gardiner and Miles, p. 75

1977 *Chirodipterus paddyensis* Miles, p. 12, Figures 3a, b, 19-21, 38, 107, 121, b-h, 145, 146, 148

HOLOTYPE

WAM 70.4.250 (Figures 3b, 19, 20, 21, 38, 121c, 146).

Locality

Locality No. 80 (Miles 1971b, p. 105, Figure 1). Paddy's Spring area, Emanuel Range, Western Australia. Approximately 18°28′30″S, 125°59′30″E.

Formation

Gogo Formation.

Figure 3. Holotype (WAM 70.4.250) of *Chirodipterus paddyensis* Miles, 1977.

Age

Frasnian (Late Devonian).

Remarks

Anterior part of flank, much of the shoulder girdle and the posterior region of the head minus the skull roof. Skull and body originally embedded in resin. Given British Museum (Natural History) No. P52570.

Griphognathus whitei Miles, 1977

1969 "a long snouted species . . ." Brunton, Miles and Rolfe, p. 82

1975 "*Griphognathus* sp." Gardiner and Miles, p. 75

1976 "*Griphognathus* sp." Ørvig, p. 92, Figures 26-28, 32-32.

1977 *Griphognathus whitei* Miles, p. 9 Figures 1, 6-14, 26-33, 43, 46, 49a, 50, 51, 53-59, 60a, b, 61-63, 75, 78-82, 90-101, 111-115, 124, 126-128, 133-140, 153. Many other references to *Griphognathus whitei* in papers by Campbell, K.S.W. & Barwick, R.E. 1982-1990.

HOLOTYPE

WAM 70.4.248 (Figures 1c, 31e, 80a, 82, 128a, 133a, b, c, 134, 153c).

Locality

Locality No. 80 (Miles 1971b, p. 105, Figure 1). Paddy's Spring area, Emanuel Range, Western Australia, 18°38'30"S, 125°59'30"E.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Almost complete skull and lower jaw. Given British Museum (Natural History) No. P50996 by Miles (1977).

Holodipterus gogoensis Miles, 1977

1975 "*Holodipterus* sp." Gardiner and Miles, p. 75

1977 *Holodipterus gogoensis* Miles, p. 14, Figures 3e, f, 4a, b, 22-24, 39, 40, 44, 49c, 68-72, 77, 86-89, 108-110, 121a, 122, 123, 125, 130, 131, 132a-d, 150-152

HOLOTYPE

WAM 70.4.261 (Figures 46; 22, 23, 24, 39, 69, 72, 123d, 132c).

Locality

Locality No. 80 (Miles 1971b, p. 105, Figure 1). Paddy's Spring area, Emanuel Range, Western Australia. Approximately 18°28'30"S, 125°59'30"E.

Formation

Gogo Formation.

Age

Frasnian (Late Devonian).

Remarks

Nearly complete skull in palatal aspect. Given British Museum (Natural History) No. P52569 by Miles (1977).

Holodipterus longi Campbell and Barwick, 1990

1990 *Holodipterus longi* Campbell and Barwick, pp. 439-440, Pls 1,2

HOLOTYPE

WAM 86.9.684 (Pls 1,2).

Locality

Paddy's Spring area, Bugle Gap, Western Australia.

Formation
Gogo Formation.

Age
Frasnian (Late Devonian).

Remarks
Right ramus of lower jaw and palate, with basityal and denticulate toothplate.

Pillararhynchus longi Campbell and Barwick, 1990

1989 "A genus of chirodiptoid new to science" Long, Figure 8

1990 *Pillararhynchus longi,* Campbell and Barwick pp. 148, 151, 152, 165, 168, Figure 6

HOLOTYPE
WAM 86.9.695 (Figure 6).

Locality
Paddy's Valley south, 100 km east of Fitzroy Crossing, Western Australia.

Formation
Gogo Formation.

Age
Frasnian (Late Devonian).

Remarks
Whole skull with lower jaw and gill arches.

TETRAPODA

AMPHIBIA

Blinasaurus henwoodi Cosgriff, 1969

1969 *Blinasaurus henwoodi* Cosgriff, pp. 68-77, Figures 4-11

HOLOTYPE
WAM 62.1.42. (Figures 4a, b; 5a, b; 6a, b; 7a, b).

Locality
Erskine Range, Blina Station, west Kimberley District, Western Australia.

Formation
Blina Shale.

Age
Scythian (Early Triassic).

Remarks
A fairly complete skull.

PARATYPES
WAM 63.8.26; 60.9.15; 68.5.61; 68.5.62; 64.7.15; 64.7.16.

Locality
Erskine Range, Blina Station, west Kimberley District, Western Australia.

Formation
Blina Shale.

Age
Scythian (Early Triassic).

Remarks
Incomplete lower jaws, except for WAM 63.8.26 which is an articulated lower jaw.

Deltasaurus kimberleyensis Cosgriff, 1965

1965 *Deltasaurus kimberleyensis* Cosgriff, pp. 68-80, Figures 1-9

HOLOTYPE
WAM 62.1.44 (Figures 1a, b).

Locality
Erskine Range. Blina Station, west Kimberley District, Western Australia, 124°21′40″E, 17°51′25″S.

Formation
Blina Shale.

Age
Scythian (Early Triassic).

Remarks
A partial skull roof with associated palate fragment.

PARATYPES
WAM 60.9.16; 64.7.17.

Locality
As for holotype.

Formation
As for holotype.

Remarks
Lower jaw fragments.

Erythrobatrachus noonkanbahensis Cosgriff and Garbutt, 1972

1972 *Erythrobatrachus noonkanbahensis* Cosgriff and Garbutt, pp. 7-15, Figures 1-7

HOLOTYPE
WAM 62.1.46 (Figures 1a, b, 4, 5, 6, 7).

Locality
Bore 6, Noonkanbah Station, west Kimberley District, Western Australia, 124°45′E, 18°20′S.

Formation
Blina Shale.

Age
Scythian (Early Triassic).

Remarks
An internal matrix cast of the central region of a skull.

PARATYPE
WAM 71.6.22 (Figures 2, 4, 5, 6, 7).

Locality
As for holotype.

Formation
As for holotype.

Remarks
An internal matrix cast of the central region of the right postero-lateral portion of a skull.

PARATYPE
WAM 62.1.50

Locality
As for holotype.

Formation
As for holotype.

Remarks
The impression of the palatal surface of the snout region, broken off across the anterior margins of the internal nares.

REPTILIA

Megalosauropus broomensis Colbert and Merrilees, 1967

1967 *Megalosauropus broomensis* Colbert and Merrilees, pp. 21-25, Figure 1

HOLOTYPE
WAM 66.2.51 (Figure 1).

Locality
Gantheaume Point, near Broome, Western Australia.

Formation
Broome Sandstone.

Age
Neocomian (Early Cretaceous).

Remarks

The specimen is preserved as a fiberglass mould of imprint G5-6 of Colbert and Merrilees (1967). Neither the holotype or paratype were figured in the original publication.

PARATYPES

WAM 64.6.5; 64.6.7.

Locality

As for holotype.

Formation

As for holotype.

Remarks

Plaster casts of prints G5-7 and G6-1, respectively.

MAMMALIA

MARSUPIALIA

Phascolomys hacketti Glauert, 1910

1910 *Phascolomys hacketti* Glauert, pp. 15-29, Pl. 2, Figures 1, 2; Pl. 3, Figures 3, 4

HOLOTYPE

WAM 60.10.3 (Pl. 2, figures 1, 2; Pl. 3, figures 3, 4).

Locality

Mammoth Cave, Margaret River district, Western Australia, 34°1'30", 115°1'30"E.

Formation

Un-named cave deposits.

Age

Late Pleistocene.

Remarks

Disarticulated individual.

Sthenurus brownei Merrilees, 1967

1967 *Sthenurus brownei* Merrilees, pp. 66-79, Figures 1-6, 8

HOLOTYPE

WAM 63.2.94 (Figures 1, 2).

Locality

Mammoth Cave, Margaret River district, Western Australia 34°1'30", 115°1'30"E.

Formation

Un-named cave deposits.

Age

Late Pleistocene.

Remarks

Right mandibular ramus, lacking upper portion of coronoid process, showing full adult dentition.

PARATYPES

WAM 63.2.39; 63.2.40 (+ 63.2.51 Figure 3); 63.2.41 (+ 63.2.48), 63.2.42 (+ 63.2.50); 63.2.43 (+ 63.2.46); 63.2.44; 63.2.81 (+ 63.2.49); 63.2.82; 63.2.89 (+ 63.2.95); 65.3.16; 66.9.43.

Locality

As for holotype.

Formation

As for holotype.

Remarks

Portions of mandibles.

Sthenurus occidentalis Glauert, 1910

1910 *Sthenurus occidentalis* Glauert, pp. 31-36, Pl. 5, Figures 6, 7

HOLOTYPE

WAM 60.10.2 (Pl. 5, figures 6, 7).

Locality

Mammoth Cave, Margaret River district, Western Australia, 34°1'30", 115°1'30"E.

Formation

Un-named cave deposits.

Age

Late Pleistocene.

Remarks

Almost complete lower jaw.

PARATYPES

WAM 63.2.74; 63.2.194; 63.2.195; 63.2.196; 63.2.197* (See Merrilees, 1967, p. 70).

Locality

As for holotype.

Formation

As for holotype.

Remarks

Portions of mandibles, and WAM 63.2.194 an almost complete lower jaw. *This specimen was included by Merrilees, 1967, p. 70, in *Sthenurus brownei.*

Wallabia kitcheneri Flannery, 1989

1989 *Wallabia kitcheneri* Flannery, pp. 299-307, Figure 1 a-h

HOLOTYPE
WAM 66.9.47 (Figure 1a)

Locality
All specimens are from Mammoth Cave, Margaret River district, Western Australia, 34°1'30", 115°1'30"E.

Formation
Un-named cave deposits.

Age
Late Pleistocene.

Remarks
Fragmentary right dentary containing P/3 (in crypt), P/2, M/1-4, with probably M/5 in crypt also. Only the root of I/1 remains, and much of the ascending ramus is broken away.

PARATYPE
WAM 66.8.17 (Figure 1 b-d).

Remarks
Left dentry fragment with P/3 (removed from crypt), posterior of P/2, M/1-4, probably M/5 in crypt, lacking most of I/1 crown and ascending ramus.

PARATYPE
WAM 66.8.18 (Figure 1 g-h).

Remarks
Maxillary fragments containing P/3, M/2.

PARATYPE
WAM 66.9.29.

Remarks
Maxillary fragments containing P/3, M/2.

PARATYPE
WAM 66.9.39.

Remarks
Right dentary fragment with partly calcified P/3 in crypt, partial M/1, M/2 (M/3-4 probably in crypt).

PARATYPE
WAM 66.9.40

Remarks
Right dentary fragment containing M/1-2 (M/3-4 probably in crypt), broken away anterior to M/1.

PARATYPE
WAM 66.9.42

Remarks

Left dentary fragment containing M/1, partial M3 in crypt.

PARATYPE

WAM 66.9.71 (Figure 1e).

Remarks

Left dentary containing I/1, P/2, M/1-3 (M4 probably in crypt).

PARATYPE

WAM 66.9.72 (Figure 1f).

Remarks

Right dentary containing I/1, P/3 (in crypt), P/2, M/1-3 (M4 probably in crypt). Figure 1e incorrectly given as WAM 66.9.72, should be 66.9.71 (paratype).

All paratypes from same locality and formation as the holotype.

MONOTREMATA

Zaglossus hacketti Glauert, 1914

1914 *Zaglossus hacketti* Glauert, pp. 244-248, Pl. 36, figure 1; Pl. 37

Locality

Mammoth Cave, Margaret River district, Western Australia, 34°1'30", 115°1'30"E.

Formation

Un-named cave deposits.

Age

Late Pleistocene.

Remarks

Two femora, tibia, radius, incomplete pelvis, vertebra, and episternum (or clavicle + inter clavicle?).

APPENDIX

Type species and subspecies listed alphabetically

aboriginalis, Pollicepes; Buckeridge, 1983; **holotype**;

abundans, Calceolispongia; Teichert, 1949; **holotype**;

adelaidense, Diastoma; Ludbrook, 1971; paratypes;

alveiformis, Graphiadactyllis; Fleming in Foster *et al.*, 1985; **holotype**;

antecedens, Negyrina; Ludbrook, 1978; **holotype**; paratypes;

antiquum, Veprecardium; Ludbrook, 1978; **holotype**; paratypes;

archaeformis, Cardium; Chapman and Crespin, 1934; **holotype**;

archaeocarpa, Banksia; McNamara and Scott, 1983; **holotype**; paratype;

australiensis, Lopha marshii; Skwarko, 1974; **syntypes**;

australis, Chirodipterus; Miles, 1977; **holotype**;

australis, Pachydiscus (Pachydiscus) jacquoti; Henderson and McNamara, 1985; **holotype**; paratypes;

boongeroodaensis, Tegulorhynchia; McNamara, 1983; **holotype**; paratypes;

broomensis, Megalosauropus; Colbert and Merrilees, 1967; **holotype**; paratypes;

brownei, Sthenurus; Merrilees, 1967; **holotype**; paratypes;

brunnschweileri, Kossmaticeras (Natalites); Henderson and McNamara, 1985; **holotype**; paratypes;

bullarensis, Cardabia; Foster and Philip, 1978; **holotype**; paratypes;

byroensis, Fusispirifer; (Glauert, 1912); lectotype; paralectotype;

calliaspis, Eastmanosteus; Dennis-Bryan, 1987; **holotype**;

callytharraensis, Notiocatillocrinus; Webster, 1987; paratypes;

campanula, Cyliclinatys; Burn, 1978; paratypes;

campi, Concavicaris; Briggs and Rolfe, 1983; **holotype**;

canningensis, Rolfosteus; Dennis and Miles, 1979b; **holotype**;

cardabia, Calantica (Scillaelepas); Buckeridge, 1983; **holotype**; paratypes;

carnarvonensis, Neograhmites; Henderson and McNamara, 1985; **holotype**;

cavernosus, Kendrickichthys; Dennis and Miles, 1980; **holotype**;

championi, Plagiostoma; Skwarko, 1974; **holotype**;

chavani, Hartungia dennanti; Ludbrook, 1978; **holotype**; paratypes;

cockburnensis, Tellina (Tellinides); Kendrick and Brearley, 1984; paratypes;

comptoni, Goniocidaris; (Glauert, 1923); **holotype**;

concinnus, Camuropiscis; Dennis and Miles, 1979a; **holotype**;

consors, Bothriembryon; Kendrick, 1978; **holotype**; paratypes;

coulthardi, Latocamurus; Long, 1988; **holotype**; paratype;

crassicostata, Lyria mitraeformis; Darragh, 1989; **holotype; paratype;**

crassus, Hesperaster; Clark, 1938; **holotype**;

darraghi, Haustellum multiplicatus; (Ludbrook, 1978); **holotype**; paratype;

darraghi, Thericium (Chavanicerithium); Ludbrook, 1971; **holotype**;

davisii, Helicoprion; (Woodward, 1886); **holotype**;

decipiens, Campbellodus; Miles and Young, 1977; **holotype**;

decorus, Labeceras (Appurdiceras); Henderson, 1990; paratype;

delicatula, Scruttonia; (Hill, 1936); paratype;

dissitus, Pachydiscus (Pachydiscus) neubergicus; Henderson and McNamara, 1985; **holotype**; paratypes;

dolosus, Hemiaster (Bolbaster); McNamara, 1987a; paratypes;

douglasi, Bothriembryon; Kendrick, 1978; **holotype**; paratypes;

durgaringa, Moythomasia; Gardiner and Bartram, 1977; **holotype**;

elegans, Harrytoombsia; Miles and Dennis, 1979; **holotype**;

enantyi, Chlamys; Skwarko, 1974; **holotype**;

euclensis, Apitioma; Ludbrook, 1978; **holotype**; paratypes;

euclensis, Monilea; Ludbrook, 1978; **holotype**; paratypes;

fascidens, Bullerichthys; Dennis and Miles, 1980; **holotype**;

fosteri, Loriculina; Buckeridge, 1983; **holotype**;

gardineri, Ctenurella; Miles and Young, 1977; **holotype**;

gardneri, Bothriembryon; Kendrick, 1978; **holotype**; paratypes;

geelvinki, Propeamussium (Parvamussium?); Skwarko, 1974; **holotype**; paratype;

gemmifera, Leiopyrga; Ludbrook, 1978; **holotype**; paratypes;

glauerti, Neoscalpellum; Withers, 1926; **holotype**; paratype;

glebosus, Dermomurex (Takia); Vokes, 1985; **holotype**; paratype;

glenisteri, Concavicaris; Briggs and Rolfe, 1983; **holotype**; paratypes;

gnangarensis, Adnatida; Richardson, 1991; **holotype**; paratypes;

gogoensis, Holodipterus; Miles, 1977; **holotype**;

gracilicostata, Lyria; Ludbrook, 1978; paratypes;

greenoughi, Camptonectes; Skwarko, 1974; **holotype**;

gunsoni, Barbatia (Acar); Darragh and Kendrick, 1980; **holotype**; paratypes;

hacketti, Phascolomys; Glauert, 1910; **holotype**;

hacketti, Zaglossus; Glauert, 1914; **holotype**;

hamptonensis, Miltha; Ludbrook, 1978; **holotype**; paratype;

henwoodi, Blinasaurus; Cosgriff, 1969; **holotype**; paratypes;

incilata, Tylospira; Darragh, 1991; paratype;

ingrami, Tapiocrinus; Webster, 1987; **holotype**;

intermedia, Zemira (Eburnopsis); Ludbrook, 1978; **holotype**; paratypes;

intermedius, Botelloides ludbrookae; Ponder, 1985; **holotype**; paratypes;

irwinensis, Healdia; Fleming in Foster *et al.,* 1985; **holotype**;

jubileensis, Giraliaster; Foster and Philip, 1978; **holotype**; paratypes;

kendricki, Austroharpa; Ludbrook, 1978; **holotype**; paratypes;

kendricki, Calantica (Scillaelepas); Buckeridge, 1983; **holotype**; paratypes;

kendricki, Timoclea (Veremolpa); Ludbrook, 1978; **holotype**; paratypes;

kimberleyensis, Deltasaurus; Cosgriff, 1965; **holotype**; paratypes;

kitcheneri, Wallabia; Flannery, 1989; **holotype**; paratypes;

klydonos, Psephoaster; McNamara, 1987a; paratype;

kossmati, Brahmaites (Brahmaites); Henderson and McNamara, 1985; **holotype**; paratypes;

laidlawi, Camuropiscis; Dennis and Miles, 1979a; **holotype**;

lawsae, Salinator; Ludbrook, 1978; **holotype**; paratypes;

lennardensis, Tubonasus; Dennis and Miles, 1979b; **holotype**;

longi, Holodipterus; Campbell and Barwick, 1990; **holotype;**

longi, Pillararhynchus; Campbell and Barwick, 1990; **holotype**;

lowryi, Glycimeris (Tucetona); Ludbrook, 1978; **paratype**;

ludbrookae, Botelloides ludbrookae; Ponder, 1985; **holotype**; paratypes;

ludbrookae, Roundyella; Fleming in Foster *et al.,* 1985; **holotype**;

ludbrookae, Xenophora (Xenophora) flindersi; Ponder, 1983; **holotype**; paratypes;

ludbrookae, Zarinia; Fleming in Foster *et al.,* 1985; **holotype**;

lundeliusae, Chicoreus (Chicoreus); Ludbrook, 1978; **holotype**; paratypes;

lundeliusae, Nannamoria; Ludbrook, 1978; paratypes;

macurdai, Tapiocrinus; Webster, 1987; **holotype**; paratype;

medicata, Notovoluta verconis; Darragh, 1989; **holotype**; paratype;

merrileesi, Cheirocrinus; Brown, 1964; **holotype**;

milesi, Concavicaris; Briggs and Rolfe, 1983; paratypes;

multidens, Brutonichthys; Dennis and Miles, 1980; **holotype**;

nodulosus, Exomilus; Ludbrook, 1978; **holotype**; paratypes;

noonkanbahensis, Erythrobatrachus; Cosgriff and Garbutt, 1972; **holotype**; paratypes;

nurinensis, Batillaria (Batillariella); Ludbrook, 1978; **holotype**; paratypes;

nuriensis, Retusa (Semiretusa); Ludbrook, 1978; **holotype**; paratypes;

nuttalli, Tavanlotha nigella; Ludbrook, 1978; **holotype**; paratypes;

occidentalis, Dosina; Ludbrook, 1978; **holotype**; paratypes;

occidentalis, Icuncula; Ludbrook, 1978; **holotype**; paratypes;

occidentalis, Sthenurus; Glauert, 1910; **holotype**; paratypes;

occulta, Notovoluta kreuslerae; Darragh, 1989; **holotype**; paratype;

paddyensis, Chirodipterus; Miles, 1977; **holotype**;

pagodiformis, Tylospira; Ludbrook, 1978; **holotype**; paratypes;
paucituberculata, Amoraster; McNamara and Ah Yee, 1989; **holotype**; paratypes;
petasus, Conus (Leptoconus); Ludbrook, 1978; **holotype**; paratypes;
playfordi, Concavicaris; Briggs and Rolfe, 1983; **holotype**; paratypes;
playfordi, Sonninia (Euhoploceras); Arkell, 1954; neotype;
pliocenicus, Botelloides borda; Ponder, 1985; **holotype**; paratypes;
praecursor, Katelysia; Ludbrook, 1978; paratypes;
progenitor, Vaceletia; Pickett, 1982; **holotype**; paratypes;
pulchellus, Torosteus; Gardiner and Miles, 1990; **holotype**;
pulchra, Linthia; McNamara, 1985; paratypes;
puteana, Tylospira; Darragh, 1991; **holotype;** paratypes;
raggatti, Gunnarites; Henderson and McNamara, 1985; **holotype**; paratypes;
recta, Anakinetica; Richardson, 1991; **holotype;** paratypes;
ridei, Bothriembryon; Kendrick, 1978; **holotype**; paratypes;
ritchiei, Incisoscutum; Dennis and Miles, 1981; **holotype**;
robinsoni, Otopleura; Ludbrook, 1978; **holotype**; paratypes;
roeae, Coxiella; Kendrick, 1978; **holotype**; paratypes;
salaputium, Mitreola; Darragh, 1989; **holotype**;
sandspringi, Tancredia (Tancredia); Skwarko, 1974; **holotype**; paratypes;
singularis, Liratomina?; Ludbrook, 1978; **holotype**; paratypes;
spathi, Kitchinites; Henderson and McNamara, 1985; **holotype**; paratypes;
spiralistriata, Austroharpa; Ludbrook, 1978; **holotype**; paratypes;
stomias, Echinocorys; McNamara, 1987b; **holotype**; paratypes;
substilis, Notovoluta kreuslerae; Ludbrook, 1978; **holotype**; paratypes;
subtilis, Ericusa; (Ludbrook, 1978); **holotype**;
thulborni, Pinguosteus; Long, 1990; **holotype**;
toombsi, Mimia; Gardiner and Bartram, 1977; **holotype**;
tricingulatus, Clanculus (Euclanculus); Ludbrook, 1978; **holotype**; paratypes;
tuberculata, Amoraster; McNamara and Ah Yee, 1989; **holotype**; paratypes;
tuberculatus, Torosteus; Gardiner and Miles, 1990; **holotype**;
tumida, Nipponatys; Burn, 1978; paratype;
turneri, Fallacosteus; Long, 1990; **holotype**;
ultima, Zenatiopsis; Darragh and Kendrick, 1971; paratype;
unicingulata, Austrocarina?; Ludbrook, 1978; **holotype**; paratypes;

uwagedensis, Westralichthys; Long, 1987; **holotype**;
volutus, Hemigordius; Palmieri in Foster et al., 1985; **holotype**; paratype;
waggrakinensis, 'Camptonectes'; Skwarko, 1974; paratypes;
westolli, Holonema; Miles, 1971b; **holotype**;
westraliense, Thericium (Chavanicerithium); Ludbrook, 1971; **holotype**; paratype;
whitei, Griphognathus; Miles, 1977; **holotype**;
whittingtoni, Harrycaris; Briggs and Rolfe, 1983; **holotype**; paratypes;
wilsoni, Nassarius (Gussonea); (Ludbrook, 1978); **holotype**; paratypes.

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