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COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT

BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

REPORT No. 147

**Catalogue of Type and Figured Specimens
in the Palaeontological Collection of the
Department of Geology, University of New
England, Armidale, N.S.W.**

BY

G. M. PHILIP

University of New England



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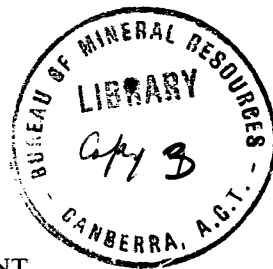
*Bureau of Mineral Resources, Geology and Geophysics, Canberra
and issued under the Authority of the Hon. R. W. C. Swartz, M.B.E., E.D., M.P.,
Minister for National Development*

1971

BMR
555(94)
REP. 5

COPY 3

BMR PUBLICATIONS CONTRACT
— GENERAL SECTION



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DEPARTMENT OF NATIONAL DEVELOPMENT

MINISTER: THE HON. R. W. C. SWARTZ, M.B.E., E.D., M.P.

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ABSTRACT

This Catalogue contains the record of 552 type and figured specimens in the Palaeontological Collection of the Department of Geology, University of New England. It is complete only to January 1962.

The species are arranged in alphabetical order under their appropriate groups, and each entry includes information about publications containing descriptions of these specimens, registration numbers, localities, rock unit, geological age, and character of the type. Specimens with an asterisk (*) following the registration number were lost in a fire which damaged the collection in 1958.

INTRODUCTION

Since the foundation of the University of New England in 1954 the Geology School has become an increasingly important repository for fossil type and figured material, particularly from the Upper Palaeozoic of northern New South Wales.

Authors describing material in the collection have generally referred to departmental locality or accession numbers. For the sake of brevity these locality numbers (prefix 'L') have been employed in this catalogue and are listed in detail at its end. In other respects, however, this catalogue follows the format of earlier catalogues in the series (e.g. Crespin, 1960).

No special provision was originally made for the cataloguing of type and figured specimens, so that such specimens carry registration numbers of the general fossil collection (prefix 'F'). Authors have used the abbreviation 'UNE' to denote specimens in this collection. Type and figured material is at present housed in a strong-room in the basement of the Geology Department. The material is stored in wooden trays, and specimens catalogued before January 1962 bear only their registration numbers.

A fire which destroyed the temporary accommodation of the Geology Department on the 28th of February, 1958, also burned most of the type and figured specimens placed in the collection prior to that date. Some fire-damaged types were recovered, whereas others escaped the fire altogether. Specimens lost in the fire are indicated in the catalogue by an asterisk (*) after the registration number.

It is hoped that the generally unsatisfactory nature of the storage of collections will be overcome in the near future with the erection of a permanent building to house the Geology Department, and with the appointment of a full-time curator of collections. Because of present difficulties, however, a considerable backlog of curating has arisen. Consequently the catalogue is complete only to January 1962. The following papers which refer to material in the collection have been published subsequent to this date: Campbell & Engel (1963), Campbell & Roberts (1964), Hill & Woods (1964), Pedder (1964, 1965), Philip (1963, 1964), and Roberts (1963, 1964, 1965a, 1965b).

COELENTERATA

ANTHOZOA

CANINOPHYLLUM SUMPHUENS

(Etheridge, 1891)

Zaphrentis ? sumphuens Etheridge, fil., 1891,
p. 16, pl. 11, figs 4-6

Caninophyllum sumphuens (Etheridge),
Campbell, 1957, pp. 92-3, pl. 17, figs 1-5

F2930*, F2934*, F2935*, F2936* Figured
hypotypes

L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

CLADOCHONUS sp. cf. C. TENUICOLLIS

McCoy

Cladochonus cf. *tenuicollis* McCoy, Campbell,
1962, p. 43, p. 13, fig. 2

F5672 Figured hypotype (cited as F5792 in
Campbell, 1962, p. 52)

F5708 Hypotype

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

CYATHOCLISIA LAXICOLUMNARIS

Cvancara, 1958

Cyathoclisia laxicolumnaris Cvancara, 1958,
pp. 851-3, pl. 109, figs 1-6

F3422 Holotype

F3423, F3424, F3427, F3429, F3430 Para-
types

L66, Gloucester district, N.S.W.

Namoi Formation

Lower Carboniferous

LITHOSTROTION COLUMNARE Etheridge, 1900

Lithostrotion ? columnare Etheridge, fil., 1900,
p. 18, pl. 1, fig. 1; pl. 2, figs 1-5

Lithostrotion columnare Etheridge, Campbell,
1957, pp. 93-4.

F2895*, F2896* Hypotypes

L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

LITHOSTROTION VOISEYI Campbell, 1957

Lithostrotion voiseyi Campbell, 1957, pp. 94-5,
pl. 17, figs 6-8

F2892* Holotype

F2893* Paratype

L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

SCYPHOZOA

CALLOCONULARIA MINIMA Campbell, 1961

Calloconularia minima Campbell, 1961a, pp.
431-2, pl. 61, fig. 1

F4123 Holotype

(Six additional specimens on same slab desig-
nated paratypes)

L46, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

PARACONULARIA NEFARIUS Campbell, 1962

Paraconularia nefarius Campbell, 1962, pp.
43-4, pl. 13, fig. 3a-b.

F5692 Holotype (cited as F5672 in
Campbell, 1962, p. 52)

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

BRYOZOA

- FENESTELLA? ALTINODOSA** Campbell, 1961
Fenestella altinodosa Campbell, 1961a, pp. 458-9, pl. 2a-b
 4708A Holotype
 182, Gloucester district, N.S.W.
 Booral Formation
Upper Carboniferous
- FENESTELLA MACLEAYENSIS** Campbell, 1962
Fenestella macleayensis Campbell, 1962, p. 48, pl. 11, figs 11 a-c
 F5738 Holotype
 L241, Kempsey district, N.S.W.
 'Kullatine Series'
Upper Carboniferous
- FENESTELLA ANODOSA** Campbell, 1961
Fenestella anodosa Campbell, 1961a, p. 457, pl. 57, figs 3a-c
 4700B-C Holotype
 4701 Paratype
 183, Gloucester district, N.S.W.
 Booral Formation
Upper Carboniferous
- FENESTELLA CERVA** Campbell, 1961
Fenestella cerva Campbell, 1961a, pp. 455-6, pl. 59, figs 1a-c
 4718 Holotype
 4705-H, F4709A Paratypes
 182, Gloucester district, N.S.W.
 Booral Formation
Upper Carboniferous
- FENESTELLA sp. cf. F. CINCTA** (Crockford)
Fenestella cf. cincta (Crockford), Campbell, 1961a, p. 460.
 4719 Hypotype
 182, Gloucester district, N.S.W.
 4697C, F4700A, F4715E, F4726C-D Hypotypes
 183, Gloucester district, N.S.W.
 Booral Formation
Upper Carboniferous
- FENESTELLA CROCKFORDAE** Campbell, 1961
Fenestella crockfordae Campbell, 1961a, pp. 457-8, pl. 59, figs 2a-b
 F4699A-B Holotype
 F4698, F4697A-B Paratypes
 L183, Gloucester district, N.S.W.
 Booral Formation
Upper Carboniferous
- FENESTELLA MALCHI** (Crockford, 1949)
Fenestrellina malchi Crockford, 1949, p. 422, fig. 4
Fenestella malchi (Crockford), Campbell, 1961a, p. 460.
 F4739 Hypotype
 L186, Gloucester district, N.S.W.
 Isaacs Formation
Upper Carboniferous
- FENESTELLA MICROPORA** (Crockford, 1949)
Fenestrellina micropora Crockford, 1949, p. 424, fig. 3
Fenestella micropora (Crockford), Campbell, 1961a, p. 461, pl. 63, fig. 2a-c
 F4741C-D, F4742A-B, F4743C-D Hypotypes
 L186, Gloucester district, N.S.W.
 Isaacs Formation
Upper Carboniferous
- FENESTELLA MICROPORA MEDEOLA** Campbell, 1962
Fenestella micropora medeola Campbell, 1962, pp. 47-8, pl. 11, figs 12-14
 F5696 Holotype
 F5693, F5694, F5786 Paratypes
 L241, 'Kempsey district', N.S.W.
 'Kullatine Series'
Upper Carboniferous

FENESTELLA OSBORNEI (Crockford, 1949)
Fenestrellina osbornei Crockford, 1949, p.
424, fig. 5

Fenestella osbornei (Crockford). Campbell,
1961a, p. 460, pl. 59, fig. 3

F4702 Figured hypotype

L182, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

FENESTELLA RECTANGULARIS (Crock-
ford, 1949)

Fenestrellina rectangularis Crockford, 1949, p.
425, fig. 7

Fenestella rectangularis (Crockford), Campbell,
1961a, p. 459, pl. 57, figs 1a-c

F4705D-F, F4709B-C Hypotypes

L182, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

FENESTELLA sp. cf. F. RECTANGULARIS
Crockford, 1949

Fenestella sp. cf. rectangularis (Crockford),
Campbell, 1961a, pp. 459-60

F4738A-D, F4740A-B, F4741A-B, A4743A-B
Hypotypes

L186, Gloucester district, N.S.W.

Isaacs Formation

Upper Carboniferous

FENESTELLA STELLARIS Campbell, 1961
Fenestella stellaris Campbell, 1961a, pp. 456-7,
pl. 58, figs 4a-d

F4716A-B Holotype

L182, Gloucester district, N.S.W.

F4717 Paratype

L183, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

FENESTELLA STROUDENSIS Campbell,
1961

Fenestella stroudensis Campbell, 1961a, p. 458,
pl. 56, figs 1a-c

F4704A-B Holotype

F4703 Paratype

L182, Gloucester district, N.S.W.

Booral Formation

Upper ? Carboniferous

FISTULAMINA FRONDESCENS Crockford
1949

Fistulamina frondescens Crockford, 1949, p.
420, figs 1-2

Fistulamina frondescens Crockford, Campbell
1961a, pp. 464-5, pl. 60, figs 1-4; Campbell
1962, p. 48, pl. 11, figs 1-2

F47051, F4705C, F4728 Figured hypotype
L182, Gloucester district, N.S.W.

F4706A Figured hypotype

L183, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

F5674, F5675 Figured hypotypes

F5673, F5676, F5677, F5678 Hypotypes
L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

POLYPORA ISAACSENSIS Campbell, 1961
Polypora isaacsensis Campbell, 1961a, pp.
463-4, pl. 63, figs 1a-e

F4744A-C Holotype

L186, Gloucester district, N.S.W.

Isaacs Formation

Upper Carboniferous

POLYPORA NEERKOLENSIS Crockford

Polypora neerkolensis Crockford, Campbell
1962, pp. 46-7, pl. 13, figs 1a-d

F5667, F5671 Figured hypotypes

F5656, F5657, F5658, F5659, F5660, F5661
F5662, F5663, F5664, F5665, F5666
F5668, F5669, F5670 Hypotypes

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

POLYPORA SCALPTA Campbell, 1961

Polypora scalpta Campbell, 1961a, p. 461, pl.
60, fig. 11

F4720A-B Holotype

L182, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

POLYPORA SEPTATA Campbell, 1962

Polypora septata Campbell, 1962, p. 462, pl.
58, figs 1-2

F4708D Holotype

F4734C-D Paratypes

L182, Gloucester district, N.S.W.
 4715C-D Paratypes
 L183, Gloucester district, N.S.W.
 Booral Formation
Upper Carboniferous
Polypora septata Campbell, Campbell, 1962, p. 47, pl. 13, figs 8a-c
 F5632, F5633 Figured hypotypes (counterparts)
 F5634, F5635, F5636, F5637, F5638, F5639, F5640, F5641, F5642, F5643, F5644, F5645, F5646, F5647, F5648, F5649, F5650, F5651, F5652, F5653, F5654
 Hypotypes
 L241, Kempsey district, N.S.W.
 Kullatine Series
Upper Carboniferous
POLYPORA sp. Campbell, 1961
Polypora sp. Campbell, 1961a, p. 463, pl. 58, figs 3a-b
 Figured specimen destroyed by fire; neither number nor locality cited
 Gloucester district, N.S.W.
Upper Carboniferous

RHOMBOPORA? BIFURCATA Campbell, 1961
 ? *Rhombopora bifurcata* Campbell, 1961a, p. 455, pl. 60, figs 5-7
 F4706C Holotype
 L182, Gloucester district, N.S.W.
 F4714B Paratype
 L183, Gloucester district, N.S.W.
 F4737, F5249 Paratypes
 L184, Gloucester district, N.S.W.
 Booral Formation
Upper Carboniferous
STENOCLADIA? ENIGMA Campbell, 1961
Stenocladia? enigma Campbell, 1961a, pp. 465-6, pl. 60, figs 8-10
 F4720C-E Holotype
 F4721, F4722, F4723, F4724, F4725 Paratypes
 L182, Gloucester district, N.S.W.
 Booral Formation
Upper Carboniferous

BRACHIOPODA

ALISPIRIFER LAMINOSUS Campbell, 1961

Alispirifer laminosus Campbell, 1961a, pp. 435-7, pl. 55, figs 17-23

F4938 Holotype

F4940, F4842, F4943, F4944, F4945 Paratypes

L184, Gloucester district, N.S.W.

F4941 Paratype

L183, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

ALISPIRIFER LAMINOSUS UNDATUS Campbell, 1961

Alispirifer laminosus undatus Campbell, 1961a, p. 437, pl. 63, figs 3-4

F4765 Holotype

F4756, F4757, F4758, F4759, F4760, F4761, F4763, F4764 Paratypes

L186, Gloucester district, N.S.W.

Isaacs Formation

Upper Carboniferous

ASYRINXIA LATA (McCoy, 1847)

Spirifera lata McCoy, 1847, p. 233, pl. 13, fig. 7

Asyrinxia lata (McCoy), Campbell, 1957, pp. 81-4, pl. 16, figs 1-9

F2577*, F2592B* Figured hypotypes

L65, Lewinsbrook

Bingleburra Formation

F2578*, F2580*, F2582*, F2583 Figured hypotypes

L51, Clarencetown

F2579 Figured hypotype

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

(Note: F2577 was used also for a paratype of *Strophopleura anterosa* Campbell (1957, p. 79, pl. 15, fig. 23) from L35)

BALANOCONCHA ELLIPTICA Campbell, 1957

Dielasma sacculum (Martin) var. *hastata* (Sowerby), Benson & Dun, 1920, p. 346, pl. 19, fig. 12

Balanoconcha elliptica Campbell, 1957, pp. 86-8, pl. 15, figs 13-15, text-figs 25, 26 (non 27)

F2825* Holotype

F1815*, F1820* Paratypes

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

BOORALIA OVATA Campbell, 1961

Booralia ovata Campbell, 1961a, pp. 450-2, pl. 55, figs 9-16

F4892C Holotype

F4888, F4889, F4890, F4891A, F4893F-G, F4895G-L Paratypes

L181, Gloucester district, N.S.W.

F4896, F4897, F4899, F4900, F4901 Paratypes

L185, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

BRACHYTHYRIS PSEUDOVALIS Campbell, 1957

Spirifera pinquis (Sowerby) Benson & Dun, 1920, p. 348, pl. 20, figs 9-10

Brachythyris pseudovalis Campbell, 1957, pp. 76-8, pl. 14, figs 10-15, text-fig. 22

F2183 Holotype

F2155, F2165*, F2170*, F2180, F2186* Paratypes

L35, Babbinsboon district, N.S.W.

Namoi Formation

Lower Carboniferous

CAMAROTOECHIA sp. Campbell, 1957
Camarotoechia sp. Campbell, 1957, pp. 90-1,
pl. 15, fig. 12

F2823* Figured hypotype

L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

CHONETES CAREYI Campbell, 1957

Chonetes careyi Campbell, 1957, pp. 63-5, pl.
12, figs 21-26

F2666 Holotype

F2665*, F2672*, F2675*, F2677*, F2706*,
F2889* Paratypes

L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

CHONETES GLOUCESTERENSIS

Cvancara, 1958

Chonetes gloucesterensis Cvancara, 1958, pp.
866-8, pl. 111, figs 1-7

F3809 Holotype

F3810, F3811, F3812, F3813, F3814 Para-
types

L66, Gloucester district, N.S.W.

F3815, F3816 Paratypes

L145, Gloucester district, N.S.W.

Copeland Road Formation

Lower Carboniferous

COMPOSITA MAGNICARINA Campbell,
1961

Composita magnicarina Campbell, 1961a, pp.
448-9, pl. 55, figs 1-8

F5276 Holotype

F5277, F5278 Paratypes

L185, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

F5785 Hypotype

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

COMPOSITA sp. Campbell, 1961

Composita sp. Campbell, 1961a, p. 449

F4979, F4980, F4981, F5981, F4982, F4883
(not F4884) Hypotypes

L186, Gloucester district, N.S.W.

Isaacs Formation

Upper Carboniferous

DICTYOCLOSTUS PARADOXUS Campbell,
1957

Dictyoclostus paradoxus Campbell, 1957, pp.
60-2, pl. 13, figs 9-17

F1972* Holotype

F1947*, F1951*, F1963*, F1966*, F1977*,
F1979*, F2886* Paratypes

L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

DICTYOCLOSTUS SIMPLEX Campbell,
1957

Dictyoclostus simplex Campbell, 1957, pp. 57-
60, pl. 13, figs 1-8, text-fig. 9

F2072* Holotype

F2052*, F2065*, F2105, F2016*, F2113*,
F2117*, F2885* Paratypes

L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

DICTYOCLOSTUS sp. Campbell, 1957

Dictyoclostus sp. Campbell, 1957, p. 62, pl.
13, figs 18-19

F2609*, F2610 Figured hypotypes

L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

ECHINOCONCHUS GRADATUS Campbell,
1956

Echinoconchus gradatus Campbell, 1956, pp.
474-6, pl. 49, figs 14-18; Campbell, 1957,
p. 62

F1609* Holotype

F1584*, F1603*, F1611*, F1631* Para-
types

L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

ECTOCHORISTITES WATTSI Campbell,
1957

Spirifer cf. *mosquensis* (Fischer), Benson &
Dun, 1920, p. 348, pl. 20, figs 4-6

Ectochoiristites wattsi Campbell, 1957, pp. 73-
6, pl. 15, figs 1-7, text-figs 15-21

F1868* Holotype

F1870*, F1874*, F1902*, F1903*, F2844*,
F2845* Paratypes

L35, Babbinsboon, N.S.W.
Namoi Formation
Lower Carboniferous

EUMETRIA? MONA Campbell, 1957

Eumetria? mona Campbell, 1957, pp. 85-6
pl. 15, figs 8-9, text-fig. 24

F2812* Holotype

F2814* Paratype

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

INGELARELLA INGELARENSIS Campbell, 1960

Ingelarella ingelarensis Campbell, 1960, pp. 1115-7, pl. 135, figs 1-3; pl. 138, fig. 4, text-fig 3

F4749 Paratype

Half mile north of road in Dry Creek, Ingelara Station, Queensland

Ingelara Shale

Permian

INGELARELLA ISBELLI Campbell, 1961

Ingelarella sp. Campbell, 1959, pl. 56, fig. 11

Ingelarella isbelli Campbell, 1961b, pp. 181-4, pl. 25, figs 1-5, text-fig. 11

F2992 Hypotype figured as *Ingelarella* sp.

F3944* (register entry: *Liriplica alta* Campbell from N.S.W.; possibly a *lapsus calami* for F2944) Paratype

'Near boundary between Pors. 18 and 19, Par. North Britton', Homevale Station, Bowen Basin, Queensland

Aldebaran Sandstone (*fide* Campbell, 1961b, text-figs 4-5)

Permian

INGELARELLA MANTUANENSIS

Campbell, 1960

Ingelarella sp. Campbell, 1959, pl. 56, fig. 12

Ingelarella mantuanensis Campbell, 1960, pp. 1118-9 pl. 137, figs 1-3, pl. 138, figs 1-3; Campbell, 1961a, p. 185, pl. 24, figs 1-2

F3318 Figured hypotype of *Ingelarella* sp.

'Zone 5, Homevale Beds, Mt Britton', Bowen Basin, Queensland

Permian

F3385, F3386 Figured hypotypes

'Upper part of the Big *Strophalosia* Zone, Eel Creek crossing, west of Homevale Homestead', Bowen Basin, Queensland

Formation not specified

Permian

INGELARELLA OVATA Campbell, 1961

Ingelarella sp. Campbell, 1959, pl. 56, fig. 9

Ingelarella ovata Campbell, 1961b, pp. 177-9, pl. 24, figs 3-9

F3182 Holotype

F5842, F5843, F5844, F5845 Paratypes

F3111 Figured hypotype of *Ingelarella* sp.

'Various zones of the Homevale Beds . . . holotype from Zone 13', Mt Britton, Bowen Basin, Queensland

(Holotype listed as from 'Bed 7, Homevale Beds' in register)

Permian

INGELARELLA PLANA Campbell, 1960

Ingelarella plana Campbell, 1960, pp. 1112-4, pl. 136, figs 1-7

F4746, F4750 Paratypes

L160, Cattle Creek, Serocold Anticline, Queensland

Cattle Creek Shale

Permian

(Designated paratypes F5000, F5001 are British Carboniferous specimens)

INGELARELLA PLICA Campbell, 1960

Ingelarella plica Campbell, 1960, pp. 1114-5, pl. 136, figs 8-13

F4747 Paratype

Cattle Creek, two miles from junction with Consuelo Creek, Queensland

Cattle Creek Shale

Permian

INGELARELLA PROFUNDA Campbell, 1961

Ingelarella profunda Campbell, 1961b, pp. 174-7, pl. 24, figs 10-14, pl. 28, figs 8-13, text-figs 6-8

F5846, F5847, F5848, F5849, F5850, F5858, F5859, F5860, F5861 Paratypes

'Various zones in the Homevale Beds', Bowen Basin, Queensland

Permian

(F5858 also given to paratype of *Notospirifer hillae plicata* Campbell, 1961b, pl. 27, fig. 8; that specimen renumbered F8858)

INGELARELLA PROFUNDA VALIDA

Campbell, 1961

Ingelarella profunda valida Campbell, 1961b, p. 177, pl. 28, figs 14-15

F3371 Paratype

'Zone 11 of the Homevale Beds', Mt Britton, Bowen Basin, Queensland

Permian

INGELARELLA SYMMETRICA Campbell, 1961

Ingelarella symmetrica Campbell, 1961b, pp. 179-180, pl. 23, figs 1-6

F5851 Holotype (also designated paratype)

F3164*, F5852

'Zone 7 of the Homevale Beds', Bowen Basin, Queensland

Permian

INGELARELLA UNDULOSA Campbell, 1961

Ingelarella undulosa Campbell, 1961b, pp. 180-1, pl. 26, figs 4-9

F5840 Holotype

F5836, F5837, F5838, F5839, F5841 Paratypes

'Lowest of the three *Ingelarella* beds, about 3 miles SSW of the Homevale Homestead', Bowen Basin, Queensland

Permian

KITAKAMITHYRIS BOORALENSIS

(Campbell, 1955)

Phricodothyris booralensis Campbell, 1955, pp. 381-2, pl. 18, figs 18-19

Phricodothyris booralensis Campbell, Campbell, 1961a, p. 438, pl. 54, figs 1-3

F1373* Holotype

F1370* Paratype

L46, Gloucester district, N.S.W.

Booral Formation

F4902A,B, F4903 Figured hypotypes (F4903 designated as neotype, Campbell, 1961a, p. 438)

L182, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

KITAKAMITHYRIS CAMPBELLI

(Cvancara, 1958)

Phricodothyris campbelli Cvancara, 1958, pp. 870-2, pl. 111, figs 14-20, 23, 25

F1339 Holotype

F3724, F3725, F3726 Paratypes

L66, Gloucester district, N.S.W.

Copeland Road Formation

Lower Carboniferous

KITAKAMITHYRIS IMMENSA (Campbell, 1961)

Phricodothyris immensa Campbell, 1961a, pp. 438-40, pl. 34, figs 4-11; pl. 59, fig. 5

F4917C Holotype

F4914G, F4915A-D, F4916B, F4917B, F4918-9 Paratypes

L186, Gloucester district, N.S.W.

Isaacs Formation

Upper Carboniferous

KITAKAMITHYRIS ROUCHELENSIS

(Campbell, 1955)

Phricodothyris rouchelensis Campbell, 1955, pp. 380-1, pl. 18, figs 16-17

F1382* Holotype

L57, Rouchel Brook, N.S.W.

'Lower Kuttung Series'

Lower Carboniferous

KITAKAMITHYRIS sp. (Cvancara, 1958)

Phricodothyris sp. Cvancara, 1958, pp. 872-3, pl. 111, figs 21-22, 24, 26

F3743, F3744, F3745 Figured hypotypes

L66, Gloucester district, N.S.W.

Copeland Road Formation

Lower Carboniferous

KITAKAMITHYRIS TRISEPTATA

(Campbell, 1955)

Phricodothyris triseptata Campbell, 1955, pp. 379-80, pl. 18, figs 10-15

F1322* Holotype

F1321*, F1323*, F1324*, F1325* Paratypes

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

KITAKAMITHYRIS UNIPLICATA

(Campbell, 1955)

Phricodothyris uniplicata Campbell, 1955, pp. 377-9, pl. 18, figs 1-9

F1340* Holotype

F1341*, F1342*, F1343*, F1344*,
 F1345* Paratypes
 L35, Babbinoon, N.S.W.
 Namoi Formation
 F1366* Paratype
 L51, Clarencetown
Lower Carboniferous

LEPTAGONIA sp. cf. L. ANALOGA
 (Phillips, 1836)

Cf. *Producta analoga* Phillips, 1836, p. 215,
 pl. 7, fig. 10

Leptaenella cf. *analoga* (Phillips), Campbell,
 1957, pp. 41-2, pl. 13, figs 20-21

Leptagonia cf. *analoga* (Phillips), Cvancara,
 1958, pp. 860-3, pl. 110, figs 6-13, text-figs
 1-2

F2537, F2538* Figured hypotype
 L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

F3604, F3605, F3606, F3607, F3608, F3587,
 F3578 Figured hypotypes

L66, Gloucester district, N.S.W.

Copeland Road Formation

Lower Carboniferous

LEVIPUSTULA LEVIS Maxwell, 1951

Levipustula levis Maxwell, 1951, p. 11, pl. 2,
 figs 4-13

Levipustula levis Maxwell, Campbell, 1961a,
 pp. 433-4, pl. 56, figs 18-30

F4933A, F5304 Figured hypotypes

L182, Gloucester district, N.S.W.

F4952, F4853, F4957A-B, F4963 Figured
 hypotypes

L183, Gloucester district, N.S.W.

F4966, F4969, F4977D Figured hypotypes

L185, Gloucester district, N.S.W.

F4949A, F4954A Figured hypotypes

L192, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

LINOPRODUCTUS, sp. Campbell, 1956

Linoproductus sp. Campbell, 1956, pp. 479-80,
 pl. 49, figs 11-13

F1630* Figured hypotype

L55, Dungog district, N.S.W.

'Lower Kuttung Series'

Lower Carboniferous

F1617*, F1618* Figured hypotypes

L35, Babbinoon, N.S.W.

Namoi Formation

Lower Carboniferous

LIRIPLICA ALTA Campbell, 1961

Liriplica alta Campbell, 1961a, pp. 441-2,
 pl. 53, figs 9-18

F4884 Holotype

F4885-7, F4891B, F4892A-B, F4893A-E,
 F4894B, F4895G-L Paratypes

L181, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

LISSELLA BOORALENSIS Campbell, 1961

Lissella booralensis Campbell, 1961a, pp.
 453-4, pl. 56, figs 3-9

F5262 Holotype

F5263, F5264, F5265 Paratypes

L185, Gloucester district, N.S.W.

F5268, F5269 Paratypes

L183, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

MARGINIRUGUS BARRINGTONENSIS
 (Dun, 1902)

Productus barringtonensis Dun, 1902, pp.
 91-3, pl. 25, figs 2-5 (*non* fig. 1)

Marginirugus barringtonensis (Dun),
 Campbell, 1956, pp. 465-7, pl. 48, figs 4-7;
 pl. 49, figs 7-9; pl. 50, figs 10-11, text-figs
 1-2

F1579 Figured hypotype

L42, Gloucester district, N.S.W.

Buckets Gap Formation

F1500, F1516 Figured hypotypes

L49, Booloombayt, N.S.W.

Lower Carboniferous

F1515, F1519, F1542, F1578 Figured
 hypotypes

L69, Gloucester district, N.S.W.

Buckets Gap Formation

F1538* Figured hypotype

L70, Gloucester district, N.S.W.

Buckets Gap Formation

Lower Carboniferous

(According to register F1516 is from L69 and
 F1542 is from L70)

MARGINIRUGUS BARRINGTONENSIS
ALATUS Campbell, 1956

Marginirugus barringtonensis alatus Campbell, 1956, pp. 467-9, pl. 48, figs 1-3; pl. 49, fig. 10, text-fig. 3

F1547 Holotype

F1546, F1564 Paratypes

L58, Myall Lakes, N.S.W.

Lower Carboniferous

NEOSPIRIFER PRISTINUS Maxwell, 1951

Neospirifer pristinus Maxwell, 1951, pp. 15-16, pl. 3, figs 1-8; pl. 4, figs 1-4

Neospirifer pristinus Maxwell, Campbell, 1962, pp. 45-6, pl. 11, figs 4-7

F5679, F5681, F5682, F5683 Figured
hypotypes

F5680 Hypotype (Hypotypes cited as
F4679-F4683, Campbell, 1962, p. 46)

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

NOTOSPIRIFER EXTENSUS TWEEDALEI
Campbell, 1961

Notospirifer extensus tweedalei Campbell, 1961b, pp. 188-9, pl. 28, figs 5-8

F6011, F6012, F6013, F6014, F6015,
F6016 Paratypes

'Oak Creek, approximately 2 miles south of
Homevale Homestead', Bowen Basin,
Queensland

Formation not specified

Permian

NOTOSPIRIFER HILLAE Campbell, 1961

Notospirifer hillae Campbell, 1961b, pp. 185-7,
pl. 27, figs 1-6, 11; pl. 25, fig. 6

F3007 Holotype

F3000, F3002, F5854, F5855, F5856
Paratypes

'Zone 11, Homevale Beds', Mt Britton, Bowen
Basin, Queensland

Homevale Beds

Permian

NOTOSPIRIFER HILLAE PLICATA
Campbell, 1961

Notospirifer sp. Campbell, 1959, pl. 56, fig. 6

Notospirifer hillae plicata Campbell, 1961b,
p. 187, pl. 27, figs 7-10

F3055 Figured hypotype of *Notospirifer*
sp.

F3043 Holotype

F5857, F8858 Paratypes

'Zone 9, Homevale Beds', Mt Britton, Bowen
Basin, Queensland

Homevale Beds

Permian

(F8858 = F5858 of Campbell 1961a; F5858
also given to paratype of *Ingelarella pro-*
funda Campbell, so specimen re-numbered)

NOTOSPIRIFER sp. Campbell, 1960

Notospirifer sp. Campbell, 1960, p. 1121

F4748 Hypotype

Cattle Creek, Reids dome area, Queensland

Cattle Creek Shale

Permian

PLICOCHONETES SEXFIDUS Cvancara,
1958

Plicochonetes sexfidus Cvancara, 1958, pp.
868-70, pl. 111, figs 8-13

F3764 Holotype

F3554, F3558, F3559, F3765, F3766, F3767,
F3768, F3769 Paratypes

L66, Gloucester district, N.S.W.

Copeland Road Formation

Lower Carboniferous

PUGNAX MINUTUS Campbell, 1957

Pugnax minutus Campbell, 1957, p. 90, pl. 15,
figs 16-18

(*Non*) *Pugnax minutus* Warren, 1927

F2819* Holotype

F2820*, F2821* Paratypes

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

PUNCTOSPIRIFER AMBLYS Cvancara,
1958

Punctospirifer amblys Cvancara, 1958, pp.
879-81, pl. 113, figs 6-16

F3552 Holotype

F3538A-B, F3550 Paratypes

L66, Gloucester district, N.S.W.

Copeland Road Formation

Lower Carboniferous

PUNCTOSPIRIFER sp. Campbell, 1961
Punctospirifer sp. Campbell, 1961a, pp. 444-5,
 pl. 53, fig. 19
 F4866 Figured specimen
 L182, Gloucester district, N.S.W.
 Booral Formation
Upper Carboniferous

PUSTULA ABBOTTI Campbell, 1956
Pustula abbotti Campbell, 1956, pp. 476-7,
 pl. 49, figs 4-6
 F1431 Holotype
 F1432, F1433 Paratypes
 L55, Dungog district, N.S.W.
 'Lower Kuttung Series'
Lower Carboniferous
 (Type locality cited as L54, p. 477)

PUSTULA ABBOTTI LARGA Cvcancara, 1958
Pustula abbotti larga Cvcancara, 1958, pp.
 864-5, pl. 110, figs 14-19
 F3714 Holotype
 F3712, F3715, F3716 Paratypes
 L146, Gloucester district, N.S.W.
 Copeland Road Formation
Lower Carboniferous

PUSTULA GRACILIS Campbell, 1956.
Pustula gracilis Campbell, 1956, pp. 477-9,
 pl. 49, figs 1-3
 F1447* Holotype
 F1446*, F1450* Paratypes
 L57, Rouchel Brook, N.S.W.
 'Lower Kuttung Series'
Lower Carboniferous

RHIPIDOMELLA AUSTRALIS (McCoy, 1847)
Orthis australis McCoy, 1847, p. 234, pl. 13,
 figs 4-4a
Rhipidomella australis (McCoy), Campbell,
 1957, pp. 52-4, pl. 12, figs 13-20
 F2771*, F2776*, F2777, F2779 Figured
 hypotypes
 L51, Clarencetown
 F2783 Figured hypotype
 L65, Lewinsbrook
 Bingleburra Formation
Lower Carboniferous

RHIPIDOMELLA FORTIMUSCULA
 Cvcancara, 1958
Rhipidomella fortimuscula Cvcancara, 1958,
 pp. 853-6, pl. 109, figs 7-13
 F3442 Holotype
 F3443, F3444, F3445, F3445A, F3447
 Paratypes
 L66, Gloucester district, N.S.W.
 Copeland Road Formation
Lower Carboniferous

RHIPIDOMELLA MYOSA Campbell, 1957
Rhipidomella myosa Campbell, 1957, pp. 54-6,
 pl. 12, figs 6-12, figs 7-8
 F2651* Holotype
 F2617*, F2645*, F2648*, F2654*, F2659*,
 F2897* Paratypes
 L35, Babbinsboon, N.S.W.
 Namoi Formation
Lower Carboniferous

RUGOSOCHONETES? WERRIENSIS
 Campbell, 1957
Rugosochonetes? werriensis Campbell, 1957,
 p. 66, pl. 12, figs 27-30
 F2869* Holotype
 F2865*, F2878*, F2880* Paratypes
 L35, Babbinsboon, N.S.W.
 Namoi Formation
Lower Carboniferous

SCHIZOPHORIA sp. cf. **S. RESUPINATA**
 Martin, 1809
 Cf. *Conchylolithus Anomites resupinatus*
 Martin, 1809, p. 12, pl. 49, figs 13-14
Schizophoria cf. *S. resupinata* (Martin),
 Campbell, 1957, pp. 48-51, pl. 12, figs 1-5,
 text-figs 3-6
 F1160*, F1166*, F1206*, F2804*, F2805
 Figured hypotypes
 L35, Babbinsboon, N.S.W.
 Namoi Formation
Lower Carboniferous

SCHIZOPHORIA VERULAMENSIS
 Cvcancara, 1958
Schizophoria verulamensis Cvcancara, 1958,
 pp. 856-9, pl. 109, figs 14-16; pl. 110,
 figs 1-5
 F3677 Holotype
 F3678, F3679, F3680, F3681 Paratypes

L66, Gloucester district, N.S.W.

Copeland Road Formation

Lower Carboniferous

SCHUCHERTELLA PSEUDOSEPTATA

Campbell, 1957

Schuchertella pseudoseptata Campbell, 1957, pp. 46-7, pl. 11, figs 8-13

F2560 Holotype

F2607, F2833*, F2834, F2835*, F2843, F2855* Paratypes

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

SPINULIPLICA SPINULOSA Campbell, 1961

Spinuliplica spinulosa Campbell, 1961a, pp. 443-4, pl. 53, figs 1-8; Campbell, 1962, p. 45, pl. 11, figs 8-10

F4922 Holotype

F4823, F4924, F4925, F4926, F4927, F4928A Paratypes

L182, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

F5635, F5688, F5689 Figured hypotypes

F5690, F5691 Hypotypes

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

SPIRIFER LIRELLUS Cvancara, 1958

Spirifer lirellus Cvancara, 1958, pp. 873-6, pl. 112, figs 1-7, 11, text-figs 5-6

F3611A-B Holotype

F3612, F3613, F3614, F3615, F3616, R3617, F3618, F3619 Paratypes (not F3621, *lapsus calami* for 3612)

L66, Gloucester district, N.S.W.

Copeland Road Formation

Lower Carboniferous

STREPTORHYNCHUS ? sp. Campbell, 1962

? *Streptorhynchus* sp. Campbell, 1962, pp. 44-5, pl. 11, figs 3a-b

F5655 Figured hypotype

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

STROPHOPLEURA ANTEROSA Campbell, 1957

Strophopleura anterosa Campbell, 1957, pp. 79-80, pl. 15, figs 19-23

F2575* Holotype

F2567*, F2574*, F2576*, F2577* Paratypes

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

(N.B. According to register, F2575 was employed for a specimen of *Asyrinxia lata* (McCoy) from L51, Clarencetown)

SYRINGOTHYRIS? BIFIDA Campbell, 1961

?*Syringothyris bifida* Campbell, 1961a, pp. 445-7, pl. 62, figs 1-9; pl. 63, fig. 5

F4917A Holotype

F4909, F4910, F4911, F4912, F4913, F4914A-E, F4915E-G, F4916A Paratypes

L186, Gloucester district, N.S.W.

Isaacs Formation

Upper Carboniferous

TETRACAMERA sp. cf. T. SUBTRIGONA

(Meek & Worthen, 1860)

Cf. *Rhynchonella subtrigona* Meek & Worthen, 1860

Tetracamera cf. *T. subtrigona* (Meek & Worthen), Campbell, 1957, p. 89, pl. 15, figs 10-11, text-fig. 27

F2710, F2711* Figured hypotypes

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

TYLOTHYRIS PLANIMEDIA Cvancara, 1958

Tylothyris planimedia Cvancara, 1958, pp. 876-9, pl. 112, figs 8-10, 12; pl. 113, figs 1-5, text-fig. 7

F3391A-B Holotype

F3392A-C, F3394, F3395 Paratypes

L146, Gloucester district, N.S.W.

Copeland Road Formation

Lower Carboniferous

UNISPIRIFER STRIATOCONVOLUTUS

Benson & Dun, 1920

Spirifer striato-convolutus Benson & Dun, 1920, p. 350, pl. 20, figs 7-8

Unispirifer striatoconvolutus (Benson & Dun),
Campbell, 1957, pp. 68-71, pl. 14, figs 1-9,
text-figs 10a, 11, 12

F2483, F2485, F2492*, F2501*, F2508*,
F2515, F2522, F2532*, F2533 Figured
hypotypes

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

WAAGENOCONCHA DELICATULA

Campbell, 1956

Productus pustulosus Phillips, Dun, 1902, pp.
75-7, pl. 23, figs 1-3, 14

Waagenoconcha delicatula Campbell, 1956, pp.
471-4, pl. 50, figs 1-9; Campbell, 1957, p.
62

F1405* Holotype

F1391*, F1399*, F2361*, F2362*, F2363*
Paratypes

L53, Hilldale, N.S.W.

F1414*, F1415* Paratypes

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

(These specimens are described by Campbell,
1956, p. 469, as 'Paratypes from same
locality as holotype')

F1379* Paratype, locality not known
(register entry '*Phricodothyris rouchelensis*
Campbell, L57')

WERRIEA AUSTRALIS Campbell, 1957

Werriea australis Campbell, 1957, p. 45, pl. 11,
figs 1-7

F2545 Holotype

F2539, F2540A, F2549, F2851, F2853
Paratypes

L35, Babbinsboon, N.S.W.

Namoi Formation

Lower Carboniferous

MOLLUSCA

PELECYPODA

CYPRICARDINIA? sp. Campbell, 1961

? *Cypricardinia* sp. Campbell, 1961a, p. 469,
pl. 61, figs 6-7

F4921 Hypotype

L182, Gloucester district, N.S.W.

F4035, F4036, F4037, F4038

L56, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

LIMIPECTEN FLEXIAURICULUS

Campbell, 1961

Limipecten flexiauriculus Campbell, 1961a,
pp. 466-9, pl. 61, figs 9-16

F4867 Holotype

F4868, F4869, F4870, F4871, F4872, F4873,
F4874, F4875, F4876, F4877, F4878,
F4879, F4880, F4881, F4882, F4883
Paratypes

L182, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

POSIDONIA sp. Campbell, 1961

Posidonia sp. Campbell, 1961a, pp. 470-1

F4039 Hypotype

L46, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

SANGUINOLITES WOOLNOUGHII

Campbell, 1962

Sanguinolites woolnoughi Campbell, 1962, p.
50, pl. 12, figs 9-10

F5712 Holotype

F5714, F5715, F5716 Paratypes

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

SANGUINOLITES ? sp. Campbell, 1961

? *Sanguinolites* sp. Campbell, 1961a, p. 470,
pl. 61, fig. 8

F4546 Hypotype

L46, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

SCHIZODUS ? sp. Campbell, 1962

? *Schizodus* sp. Campbell, 1962, p. 50, pl. 12,
figs 17-18

F5714A, F5783 Figured hypotypes

F5704C, F5784 Hypotypes

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

STREBLOCHONDRIA HISTION Campbell,
1962

Streblochondria histion Campbell, 1962, p. 49,
pl. 12, figs 11-16

F5704 Holotype

F5705, F5706, F5707, F5708, F5709, F5710
Paratypes

(F5705 described as 'possibly not belonging to
this species', *loc. cit.*)

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

GASTROPODA

PERUVISPIRA KEMPSEYENSIS Campbell,
1962

Peruvispira kempseyensis Campbell, 1962, pp.
48-9, pl. 12, figs 1-4

F5703 Holotype

F5697, F5698, F5699, F5700, F5701, F5702

L241, Kempsey district, N.S.W.

'Kullatine Series'

Upper Carboniferous

PERUVISPIRA KUTTUNGENSIS Campbell,
1961

Peruvispira kuttungensis Campbell, 1961a, p.
471, pl. 56, figs 10-17

F4935 Holotype
F4935A, F4837 Paratypes
L125, Gloucester district, N.S.W.
Booral Formation
Upper Carboniferous

PERUVISPIRA sp. cf. P. KUTTUNGENSIS
Campbell, 1961

Peruvispira cf. *kuttungensis* Campbell, 1961a,
p. 472

F4984 Hypotype
L186, Gloucester district, N.S.W.
Isaacs Formation
Upper Carboniferous

CEPHALOPODA

BEYRICHOCERAS sp. Cvancara, 1958
Beyrichoceras sp. Cvancara, 1958, p. 882, pl.
113, fig. 17, text-fig. 8

F3837 Hypotype
L66, Gloucester district, N.S.W.
Copeland Road Formation
Lower Carboniferous

CRAVENOCERAS KULLATINENSE
Campbell, 1962

Cravenoceras kullatinense Campbell, 1962, pp.
41-2, pl. 12, figs 5-8, text-figs 1-2

F5739 Holotype
F5740, F5741 Paratypes
500 ft stratigraphically above L242 (Campbell,
1962, text-fig. 1, *see* Campbell, 1962, p.
40), Kempsey district, N.S.W.
'Kullatine Series'

Upper Carboniferous

CYMACLYMENIA BORAHENSIS Pickett,
1960

Cymaclymenia borahensis Pickett, 1960, pp.
239-40, pl. 41, figs 1-6, text-fig. 2

F4599 Holotype
F4600, F4601, F4602, F4603 Paratypes
L200, Manilla district, N.S.W.
Borah Limestone

Upper Devonian

? PLATYCLYMENIA sp. Pickett, 1960

? *Platyclymenia* sp. Pickett, 1960, p. 238, pl.
41, fig. 7

F4618 Figured hypotype
Catong Gully, Upper Somerton Road, just
below road

'Baldwin Formation'

Upper Devonian

ARTHROPODA

TRILOBITA

LINGUAPHILLIPSIA DIVERGENS

Cvancara, 1958

Linguaphillipsia divergens Cvancara, 1958, pp.
883-6, pl. 113, figs 18-25, text-fig. 9

F3562 Holotype

F3563A, F3563B, F3563C, F3563D, F3563E,
F3563F, F3563G Paratypes

F3581A-B

L146, Gloucester district, N.S.W.

F3564 Paratype

L148, Gloucester district, N.S.W.

F3565, F3566 Paratypes

L66, Gloucester district, N.S.W.

Copeland Road Formation

Lower Carboniferous

ECHINODERMATA

CRINOIDEA

ACTINOCRINITES NODOSUS Wright, 1954

Actinocrinites nodosus Wright, Pickett, 1960,
p. 88, figs 1-2

F4861 Figured hypotype

L214, Babbaboona district, N.S.W.

Namoi Formation

Lower Carboniferous

BLASTOIDEA

'PENTREMITES' ? sp. Campbell, 1961

? *Pentremites* sp. Campbell, 1961a, pp. 432-3,
pl. 56, fig. 2

F4714 Figured specimen

L183, Gloucester district, N.S.W.

Booral Formation

Upper Carboniferous

LOCALITIES

- L35. Hillside beside Watts, Babbinsboon, 570637 Attunga One Mile Military Sheet.
- L42. *Marginirugus* bed, McInnes farm section, 947420 Gloucester One Mile Military Sheet.
- L46. Quarry in Upper Kuttung, 2 miles E of Booral, S of Stroud, 'near 019840' Dungog One Mile Military Sheet.
- L51. Ridge W of road about 2 miles N of Clarencetown, 803735 Paterson One Mile Military Sheet.
- L53. Hilldale, 660790 Paterson One Mile Military Sheet.
- L54. Nooroo Railway Cutting, 903985 Dungog One Mile Military Sheet.
- L55. Nooroo Railway Cutting, about 20 feet stratigraphically below L54.
- L57. 250 yards upstream from Camerons bridge on Rouchel Brook, Pors 1 and 34, Par. Rouchel, Co. Durham.
- L58. Johnsons Hill, Myall Lakes, 370836 Bullah Delah One Mile Military Sheet.
- L65. Lewinsbrook, 607882 Dungog One Mile Military Sheet.
- L66. Barrington River, 916372 Gloucester One Mile Military Sheet.
- L69. *Marginirugus* bed, 933383 Gloucester One Mile Military Sheet.
- L70. *Marginirugus* bed, 940380 Gloucester One Mile Military Sheet.
- L125. (=L185) Fossil horizon N of highway, 018859 Dungog One Mile Military Sheet.
- L145. Exposure E side of Harrington-Rawdon Vale road, 905362 Gloucester One Mile Military Sheet.
- L146. Two small exposures in separate gullies, near their junction, 911364 Gloucester One Mile Military Sheet.
- L147. Exposure in two small gullies and on slope between gullies, 915367 Gloucester One Mile Military Sheet.
- L148. Small gully exposure where fossiliferous mudstone overlies thin pitchstone, 931387 Gloucester One Mile Military Sheet.
- L160. Cattle Creek Formation, Cattle Creek, Consuelo Station, Queensland.
- L181. *Liriplica* bed, at top of fossiliferous section, about 400 yards S of highway, near 019840 Dungog One Mile Military Sheet.
- L182. Beds below main *Levipustula* bed, near 019840 Dungog One Mile Military Sheet.
- L183. Beds with bryozoans, between L181 and L182, near 019840, Dungog One Mile Military Sheet.
- L184. *Alispirifer* bed, below L183, near 019840, Dungog One Mile Military Sheet.
- L185. =L125.

- L186. Fossil bed in Isaacs Formation, 987823, Dungog One Mile Military Sheet.
- L200. Borah Creek, E of Gunnedah-Barraba Road, just below Borah Creek Crossing.
- L214. Swains Gully, limestone about 200 yards upstream from road crossing.
- L241. *Levipustula* bed in Oaky Creek, between Sherwood and Moparobah, W of Kempsey.
- L242. *Rhacopteris* bed at base of measured section in Oaky Creek, below L241.

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