Catalogue of type, figured and cited fossils in the City of Bristol Museum & Art Gallery. Part 1, Plantae.



M.D. Crane

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CATALOGUE OF TYPE, FIGURED AND CITED FOSSILS IN THE CITY OF BRISTOL MUSEUM & ART GALLERY

PREAMBLE

This is the first of a proposed series of catalogues of the type, figured and cited specimens in the museum's palaeontology collections. It is anticipated that one or two parts will be published each year until coverage is complete. The last section(s) to be published will contain an account of the history of the institution, together with biographies of collectors and others associated with the museum. Because of the delay in the publication of these sections it was thought that a brief outline of the history would be appropriate here.

The present City of Bristol Museum & Art Gallery has its origin in the museum of the Bristol Institution for the Advancement of Science, Literature and the Arts, a private institution which opened in 1823. In 1863 it was proposed that the Institution, which was in financial difficulties, should merge with the Bristol Library Society and that they should move into new purpose built premises. Agreement on the merger was reached in 1870 and the Bristol Museum and Library Association came into being the following year.

Financial difficulties still dogged the institution, and in 1894 the shareholders transferred control to the Corporation. The last years of that century and the early years of the next saw major changes. The Art Gallery was opened in 1905 and the new Reference Library in 1906. The greater portion of the books held by the Bristol Museum & Reference Library, as it was now called, were transferred to this new library. A number of other administrative changes have taken place since that time, but they will be dealt with later.

A number of geologists have held curatorial appointments at the museum. Biographies of most will be included in a later issue, but a summary is given here:

Dates of appointment

1823-1830	J.S. Miller (né Müller) (d. 1830)
1831-1850	Samuel Stutchbury (1798-1859)
1837-1844	W.H. Baily (1819-1888)
1850	H.R. Stutchbury (1796-1853)
1851-1856	Robert Etheridge (1819-1903)
1856-1875	William Sanders (1799-1875)
1871-1878	E.B. Tawney (1841-1882)
1878-1882	W.J. Sollas (1849-1936)
1882-1884	James Dallas (fl. 1880s)
1884-1898	Edward Wilson (1848-1898)
1898-1930	Herbert Bolton (1863-1936)
1913-1916/7	V.E. Robson (fl. 1910s)
1916-1919, 1921-1930	
1920-1945	F.S. Wallis (d. 1979)
1949-1951	P.W. Curnow
1951-	M.L.K. Curtis
1966-1972	F.R. Jeffery
1968-1980	T.R. Fry
1972-1975	A.N. Insole
1975-	M.D. Crane
1710	

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M.D. Crane

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1. INTRODUCTION

It is ninety years since the publication of Edward Wilson's catalogue of the type and figured fossils in the Bristol Museum and Library. In that work Wilson recorded only five plants, one of which, *Zoophycos scoparius* Thiolliere², is now regarded as a trace fossil of animal origin. In including the reference to this specimen Wilson broke his "general rule" that "In regard to the described specimens ... only 'described and figured specimens' will be noticed...".³

He also stated⁴ that only those type specimens "which are at the present time in the Bristol Museum, will be specified ...". In a footnote he added "It is unfortunately the fact that certain type specimens have disappeared from the Bristol Museum."

Several specimens described in the pre-1890 literature and omitted from Wilson's catalogue were, however, subsequently identified in the collection. Unfortunately, therefore, no special significance can be attached to the omission of specimens from that catalogue.

The present catalogue, the first of a proposed series, lists all the type, figured and cited 5 material which is, or is known to have been, in the collection. Some specimens which might be supposed to have been present in the collection have been omitted from the formal listings because of the lack of supporting documentation.⁶

NOTES AND REFERENCES

- 1 WILSON, E. 1890. Fossil types in the Bristol Museum. Geological Magazine. (dec 3) 7, 363-372, 411-416.
- ² TAWNEY, E.B. 1873. On the occurrence of Zoophycos scoparius (Thioll.) in the Inferior Oolite of Dundry. Proceedings of the Bristol Naturalists' Society, (2) 7, 40-41.
- 3 WILSON [n.1], p. 364.
- 4 WILSON [n.1], p. 364.
- 5 By 'cited' we mean not only those specimens which are described, but also specimens which form the basis of statistical studies, or which are known or believed to form the basis for, or at least be representative of, less specific references in species lists.
- 6 The items concerned were all referred to in publications by museum staff and are as follows:
 - a) BOLTON, H. 1911. Faunal horizons in the Bristol Coalfield. Quarterly Journal of the Geological Society of London, 67, 316-341, pl. XXVI.

Bolton makes several references to unspecified plant material and to material of the genera Neuropteris, Cordaites, Sphenopteris, Annularia and Calamites as well as Lepidodendroid twigs and leaves, and Stigmarian rootlets from South Liberty Colliery. No such material has been found amongst Bolton's South Liberty Colliery collection, and no reference to such specimens has been noted in our records.

b) SOLLAS, W.J. 1879. On the Silurian district of Rhymney and Pen-y-lan, Cardiff. Quarterly Journal of the Geological Society of London, 35, 475-507, pl. XXIV.

Sollas figured [pl. XXIV fig. 23] "An Alga", presumably an example of the "fucoidal markings" mentioned earlier in the text (p. 485).

He also referred to the following:

Nidulites favus Salter [= Mastopora fava (Salter)] from the "red ferruginous bed", Ludlow Series, of Rhymney [Rumney] Hill, p. 486.

Pachytheca sphaerica Hooker from the beds above and below the Rhymney [Rumney] Grit, Upper Wenlock Series, from Rhymney [Rumney] Quarry [= Tynmawr Quarry].

"Plant remains, which ... resemble fronds of *Rhodymenia ciliata* and other Floridean species of Algae" (p. 499), also reference to "Fragments of plants" (p. 482), in some cases associated with *Pachytheca*, the occurrence of which is given above.

Sollas made several donations of Silurian material from Cardiff during 1878 and 1879, material from which will be considered later in the series. If this plant material was included (the donation records are very general and do not specifically refer to such material) it is no longer extant.

The only other plant material mentioned by Sollas was 'mineral charcoal', thin sections of which were prepared by John Storrie (p. 482). This is presumably the material now in the National Museum of Wales [BASSETT, M.G. 1972. Catalogue of type, figured and cited fossils ... National Museum of Wales, Cardiff, p. 100].

- c) TAWNEY, E.B. 1866. On the western limit of the Rhaetic Beds in South Wales and on the position of the "Sutton Stone". Quarterly Journal of the Geological Society of London, 22, 69-93, pls. III, IV. Equisetites from the Rhaetic of Cwrt-y-Coleman near Bridgend (p. 79). This material is not in the collection and no reference to it has been noted in our records.
- d) TAWNEY, E.B. 1874. Notes on the Radstock Lias. Proceedings of the Bristol Naturalists' Society, 1, 167-189.

Fossil wood from the Lower Lias of Timsbury, near Radstock (p. 182). This material is not in the collection and no reference to it has been noted in our records.

- e) WILSON, E. 1891, 1894 [See under chapter 3 CITED SPECIMENS].
 In addition the specimens mentioned later, Wilson recorded the presence of plant remains from the Tea Green Marls. No such material is present in the collection and no reference to it has been noted in our records.
- f) WILSON, E. & CRICK, W.D. 1889. The Lias Marlstone of Tilton, Leicestershire. Geological Magazine, (dec. 3) 6, 296-305, 337-342, pls. IX, X.
 Fossil wood is recorded from the Middle Upper Lias 'Transition Bed', south of Tilton Station. We have

a number of specimens described in this account, which will be considered later in the series. The donation records are very general and no reference to plant material is found there or, as far as we can say at present, in our other records.

2. CATALOGUE OF TYPE AND FIGURED SPECIMENS

DEVONIAN

"Carbonized plant stems of more than one kind"

Cb 2676 [not located]

figured

Bed 34, Old Red Sandstone; Borehole core, Portishead Power Station, Portishead.

Donated by S. Smith, 1937.

SMITH, S. & REYNOLDS, S.H. 1934. *Proceedings of the Bristol Naturalists' Society*, (4) 7, 523 ["Conglomerate containing much carbonaceous matter - traces of plants"], 526 ["much carbonaceous material of the nature of coal, representing fragmentary plant stems of more than one kind"], 527 ["carbonized plant stems often show traces of structure."], pl. 1, fig. 3. Presumed to have been destroyed by enemy action, 1940.

CARBONIFEROUS

Alethopteris davreuxi (Brongniart)

C4661 figured

Coal Measures, [Radstock Series according to Kidston, 1888]; Camerton, Somerset.

Acquisition history not known.

KIDSTON, R. 1888. Transactions of the Royal Society of Edinburgh, 33, 386-387, 416, pl. XXIV fig. 1, 1a.

WILSON, E. 1890. Geological Magazine, (dec. 3) 7, 415.

Andrewopteris revoluta Baxter

Cd 153

acetate peel of type

Fleming or Mineral Coal, Cabanis Formation, Cherokee Group, Desmoinsian Stage, Middle Pennsylvanian: Pittsburg-Midway Coal Mine, 19½ miles north-west of Hallowell, Kansas, U.S.A. Donated by M.D. Crane, 1979.

BAXTER, R.W. 1975. Palaeontographica, 150 B, 157-161, pls.

The holotype is stated by Baxter to be "Slides and peels of coal ball M1469 in the Palaeobotanical Collections, Department of Botany, University of Kansas, Lawrence, Kansas,

U.S.A." This acetate peel, numbered 35, was sent to Crane by Baxter, 1975.

Aphlebia goldenbergii (Weiss)

C 4652

figured

[counterpart Cd 102]

Coal Measures, ["most likely from a bed on the horizon of the Farrington Series", Kidston, 1888; "Farrington Group, Westphalian D (lower)", Crookall, 1976]; Pucklechurch,

["probably from the neighbourhood of ...", Kidston, 1888], near Bristol.

Donated by J.C. Blackmore, 1884.

KIDSTON, R. 1888. Transactions of the Royal Society of Edinburgh, 33, 388, 416, pl. XXVII

fig. 2 (as Rhacophyllum goldenbergii Weiss).

WILSON, E. 1890. Geological Magazine, (dec. 3) 7, 415 (as Rhacophyllum goldenbergii Weiss). CROOKALL, R. 1976. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (7), 859-860, text-fig. 248 [p. 860], pl. CLXIII fig. 3.

Caulopteris macrodiscus (Brongniart)

C 4649

figured

Hard Vein, Coal Measures, ["Farrington Group, Westphalian D (lower)", Crookall, 1955]; Coal Pit Heath, near Bristol.

Purchased from an unspecified source, 1876.

KIDSTON, R. 1888. Transactions of the Royal Society of Edinburgh, 33, 393, 416, pl. XXV fig. 1.

WILSON, E. 1890. Geological Magazine, (dec. 3) 7, 415.

CROOKALL, R. 1955. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (1), 60-62, text-fig. 22 [p. 61] (copy of KIDSTON, 1888, pl. XXV fig. 1).

Incorrectly stated by Crookall, 1955, 62, to be the type and (in the explanation of text-figure 22 [p.61]) to be in the Bath Museum.

Lepidophloios acerosus (Lindley & Hutton)

C 4636 [not located] [counterpart] Cd 142 figured

Coal Measures ["Soap Vein, Lower Pennant Series", Kidston, 1893]; Abersychan, near Pontypool. Donated by W. Wood, date unknown.

KIDSTON, R. 1893. Transactions of the Royal Society of Edinburgh, 37 (3), 558 - 559, 563,

pl. 1, fig. 1, 1a [the latter drawn from the counterpart].

KIDSTON, R. 1893. Transactions of the Royal Society of Edinburgh, 37 (3), 604.

JONGMANS, W.J. 1930. Fossilium catalogus II, Plantae, pars 16 Lycopodiales III, 410 as Lepidodendron sp.).

CROOKALL, R. 1964. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (3), 314, 315 (as Lepidodendron sp.). THOMAS, B.A. 1977. Palaeontology, 20, 280, 282 ("... I would agree with Jongmans ... and Crookall ... that ... there appears to be no good reason for including it within [Lepidophloios acerosus]".

The specimen C 4636 is presumed to have been destroyed by enemy action, 1940.

Lepidostrobus ornatus Brongniart

B 1397 [not located] figured

Coal Measures; ["Glamorganshire", Hooker, 1848]. [In the MS 'Catalogue of Fossil Plants Bristol Institution' the locality has been added in pencil as "Glamorgan or Nantyglo ..." (Catalogue number 411).]

Acquisition history not known.

HOOKER, J.D. 1848. Memoirs of the Geological Survey, 2 (2), 448, pl. vii.

CROOKALL, R. 1966. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (4), 493.

Presumed to have been destroyed by enemy action, 1940.

Margaritopteris conwayi (Lindley & Hutton)

Cb 4701 figured

Coal Measures, ["probably Westphalian B or lower C", Crookall, 1976]; Risca, Monmouthshire. Donated by J. Leman.

CROOKALL, R. 1976. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (7), 853-854, text-fig. 247 [p.854], pl.

CLX figs. 4, 5 [reverse of slab] and pl. CLXII. Incorrectly described as holotype by Crookall, 1976, (in explanation to text-figure 247 [p. 854]).

Margaritopteris conwayi (Lindley & Hutton)

Cb 4756 figured

Coal Measures, ["probably Westphalian B or lower C", Crookall, 1976]; ["probably from Risca, Monmouthshire", Crookall, 1976].

Acquisition history not known.

CROOKALL, R. 1976. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (7), 853-854, pl. CLX fig. 2. This specimen is number 372 in the MS 'Catalogue of fossil plants ...', not 373 as stated by Crookall, 1976, (in the explanation to pl. CLX fig. 2).

Megaphyton elongatum Kidston

C 4650

type

Coal Measures, ["Radstock Group, Westphalian D (upper)", Crookall, 1955];? Radstock, Somerset. [The earliest label associated with the specimen does not give the locality. Wilson, 1890, gave "Radstock?"].

Acquisition history not known.

KIDSTON, R. 1888. Transactions of the Royal Society of Edinburgh, 33, 390, 416, pl. XXVI

WILSON, E. 1890. Geological Magazine, (dec. 3) 7, 413.

CROOKALL, R. 1955. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (1), 76-77, text-fig. 31. [p. 76] (copy of KIDSTON, 1888, pl. XXVI fig. 1).

Neuropteris flexuosa Sternberg

Cb 48 figured

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1925. Transactions ... Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne, NS 6 (2), 171.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 299-304, pl. 6 [top row, first from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (2), 95.

Neuropteris flexuosa Sternberg

Cb 49 figured

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1925. Transactions ... Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne, NS 6 (2), 171.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 299-304, pl. 6 [top row, second from left1.

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (2), 95.

Intermediate between Neuropteris flexuosa Sternberg and N. gigantea Sternberg

Cb 50 figured

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 303-304, pl. 6 [top row, third from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (2), 95.

Intermediate between Neuropteris flexuosa Sternberg

and N. gigantea Sternberg

[counterpart, Cb 51, of figured specimen]

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 303-304, pl. 6 [top row, fourth from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey ... Palaeontology*, 4 (2), 95.

We have been unable to trace any record of the figured specimen having been in the collection.

Intermediate between Neuropteris flexuosa Sternberg and N. gigantea Sternberg

Cb 52 figured

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 303-304, pl. 6 [top row, fifth from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey ... Palaeontology*, 4 (2), 95.

Intermediate between Neuropteris flexuosa Sternberg and N. gigantea Sternberg

Cb 53 figured

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 303-304, pl. 6 [top row, sixth from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (2), 95.

Neuropteris gigantea Sternberg

Cb 54 figured

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1925. Transactions ... Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne, NS 6 (2), 171.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 303-307, pl. 6 [middle row, first from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey ... Palaeontology*, 4 (2), 95.

Intermediate between Neuropteris gigantea Sternberg and N. tenuifolia Schlotheim

Cb 55 figured

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 303-307, pl. 6 [middle row, second from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey ... Palaeontology*, 4 (2), 95.

Intermediate between *Neuropteris gigantea* Sternberg and *N. tenuifolia* Schlotheim

Cb 56a figured

[counterpart Cb 56b]

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 303-307, pl. 6 [middle row, third from left].

<u>CROOKALL</u>, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey ... Palaeontology*, 4 (2), 95.

Intermediate between Neuropteris gigantea Sternberg and N. tenuifolia Schlotheim

Cb 57 figured

Ironstone nodules at about level of Crow Coal, Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 303-307, pl. 6 [middle row, fourth from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey... Palaeontology*, 4 (2), 95.

Neuropteris macrophylla Brongniart

Cb 61 figured

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1925. Transactions ... Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne, NS 6 (2), 171.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 307-310, pl. 6 [bottom row, third from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey ... Palaeontology*, 4 (2), 95.

Neuropteris tenuifolia Schlotheim

Cd 71 figured [counterpart Cb 4353]

Coal Measures; Abersychan, near Pontypool.

Acquisition history not known, but it may have been one of the specimens donated by W. Wood, date unknown.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 306-307, pl. 5.

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey ... Palaeontology* 4 (2), 95.

Neuropteris tenuifolia Schlotheim

Cb 65a figured

[counterpart Cb 65b]

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1925. Transactions ... Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne, NS6 (2), 171.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 306-307, pl. 6 [middle row, fifth from left]

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey ... Palaeontology*, 4 (2), 95.

Intermediate between Neuropteris tenuifolia Schlotheim and

Cb 59 figured

Neuropteris macrophylla Brongniart

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 308, pl. 6 [bottom row, first from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey ... Palaeontology*, 4 (2), 95.

Intermediate between Neuropteris tenuifolia Schlotheim and

Cb 60 figured

Neuropteris macrophylla Brongniart

Ironstone nodules at about level of Crow Coal, Middle Coal Measures; Phoenix Brickworks, Crawcrook, Ryton, near Newcastle-upon-Tyne.

Donated by E. Bolton, 1925.

BOLTON, E. 1926. Journal of the Linnean Society ... Botany, 47, 308, pl. 6 [bottom row, second from left].

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. *Memoirs of the Geological Survey ... Palaeontology*, 4 (2), 95.

Palaeoxyris helicteroides (Morris)

C 973a

figured

279 feet below the Bedminster Great Vein, Lower Coal Measures; South Liberty Colliery, Bristol. Donated by H. Bolton.

BOLTON, H. 1911. Quarterly Journal of the Geological Society of London, 67, 324, 336, 338, 341, pl. XXVII fig. 20.

CROOKALL, R. 1928, Summary of Progress of the Geological Survey for 1927, (2), 98.

Palaeoxyris helicteroides (Morris)

C 973b

figured

279 feet below the Bedminster Great Vein, Lower Coal Measures; South Liberty Colliery, Bristol.

Donated by H. Bolton.

BOLTON, H. 1911. Quarterly Journal of the Geological Society of London, 67, 324, 336, 338, 341, pl. XXVII fig. 21.

CROOKALL, R. 1928. Summary of Progress of the Geological Survey for 1927, (2), 98.

RHAETIC

Cotham Marble, Double Landscape Marble

Cb 3850

figured

Cotham Beds, Rhaetic; Cotham, Bristol.

Donated by Street Museum, 1948.

HAMILTON, D. 1961. Palaeontology, 4, 324, 326, 330, pl. 39 fig. 1.

Cotham Marble, "Flakes of Crazy Cotham Marble penetrating

Double Landscape Marble"

Cb 4128

figured

Cotham Beds, Rhaetic; Bristol district.

Donated by Clifton College, 1954.

HAMILTON, D. 1961. Palaeontology, 4, 325-326, 329, 332, pl. 40.

Hepaticites solenotus Harris

Ca 9277

figured

Bed k, Rhaetic; Coldharbour Farm, Redland, Bristol.

Donated by W.H. Wickes, 1924.

HARRIS, T.M. 1938. The British Rhaetic flora, 67, 70, text-figures 24 E-G [p. 68].

With Naiadita lanceolata Buckman, emend. Harris, q.v.

Naiadita lanceolata Buckman, emend. Harris

Ca 7687

figured

Bed k, Rhaetic; Coldharbour Farm, Redland, Bristol.

Donated by W.H. Wickes, 1924.

WICKES, W.H. 1900. Proceedings of the Geologists Association, 16, 422 (as Naiadites acuminatus).

WICKES, W.H. 1901. Proceedings of the Bristol Naturalists' Society, NS 9, 100, pl. 1 opp. p. 100

(as Naiadites acuminatus).

HARRIS, T.M. 1938. The British Rhaetic flora, 35, 36-37, 43, 65, text-figures 13C [p. 33],

16B [p. 37], 20F [p. 65].

Naiadita lanceolata Buckman, emend. Harris

Ca 9279b

figured

Bed k, Rhaetic; [Coldharbour Farm], Redland, Bristol.

Donated by W.H. Wickes, 1924.

WICKES, W.H. 1900. Proceedings of the Geologists' Association, 16, 422 (as Naiadites acuminatus).

WICKES, W.H. 1901. Proceedings of the Bristol Naturalists' Society, NS 9, 100, pl. 1 opp.

p. 100 (as Naiadites acuminatus).

HARRIS, T.M. 1938. The British Rhaetic flora, 35, text-figure 13I [p. 33].

Naiadita lanceolata Buckman, emend. Harris

Ca 9279c

figured

Bed k, Rhaetic; [Coldharbour Farm], Redland, Bristol.

Donated by W.H. Wickes, 1924.

WICKES, W.H. 1900. Proceedings of the Geologists' Association, 16, 422 (as Naiadites acuminatus).

WICKES, W.H. 1901. Proceedings of the Bristol Naturalists' Society, NS 9, 100, pl. 1 opp.

p. 100 (as Naiadites acuminatus).

HARRIS, T.M. 1938. The British Rhaetic flora, 36-37, 65, text figures 16A, 16C [p. 37].

With Hepaticites solenotus Harris, q.v.

Naiadita lanceolata Buckman, emend. Harris

Ca 9278 figured

Bed k, Rhaetic; [Coldharbour Farm], Redland, Bristol.

Donated by W.H. Wickes, 1924.

WICKES, W.H. 1900. Proceedings of the Geologists' Association, 16, 422 (as Naiadites acuminatus). WICKES, W.H. 1901. Proceedings of the Bristol Naturalists' Society, NS 9, 100, pl. 1 opp. p. 100 (as Naiadites acuminatus).

HARRIS, T.M. 1938. The British Rhaetic flora, 39, 65, text figure 18A [p.40].

Naiadita lanceolata Buckman, emend. Harris

Ca 9279a

figured

Bed k, Rhaetic; [Coldharbour Farm], Redland, Bristol.

Donated by W.H. Wickes, 1924.

WICKES, W.H. 1900. Proceedings of the Geologists' Association, 16, 422 (as Naiadites acuminatus). WICKES, W.H. 1901. Proceedings of the Bristol Naturalists' Society, NS 9, 100, pl. 1 opp. p. 100 (as Naiadites acuminatus).

HARRIS, T.M. 1938. The British Rhaetic flora, 46, 65, text figure 21J [p. 46].

Naiadita lanceolata Buckman, emend. Harris

Cb 2663

figured

[Naiadita Bed], Rhaetic; Southmead Laundry, Westbury, Bristol.

Donated by W.H. Wickes, 1924.

HARRIS, T.M. 1938. The British Rhaetic flora, 39, 40, 65, text-figures 18D [p. 40], 19 [p. 41]. With Botryococcus braunii Kützing and "Branched filaments resembling moss rhizoids", qq.v.

3. CITED SPECIMENS

BOLTON, E. 1925. Fossil flora of the Northumberland and Durham Coalfield. Transactions a) of the Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne, NS 6 (2), 167-181.

In this paper Bolton lists (pp. 170-171) species from the clay-with-ironstone and a thin coal, said to be at about the level of the Crow Coal, exposed in the Phoenix Brickworks Company's clay pit at Crawcrook, some 14 miles west of Newcastle-upon-Tyne.

Bolton commented on the richness of the flora from the ironstone nodules; the coal was also described as "very fossiliferous". Two lists of Crawcrook material were published, the first, from the coal, was of ten species. The second was said to be a "complete list of all the species from this locality", but it omitted most of those recorded from the coal.

The following species are represented, or have been represented, in the collection. Items not located are presumed to have been destroyed by enemy action, 1940.

Alethopteris lonchitica var. decurrens (Artis) Ca 5382 [not located]

Artesia transversa (Artis) C 4670 [not located]

Calamites ramosus Artis Ca 5369 [not located]

Calamites suckowii Brongniart Ca 5350 [not located]; Ca 5351 [not located]

Calamocladus equisetiformis Schlotheim Ca 5356 [not located]; Ca 5359 [not located]

Calamocladus grandis (Sternberg) Ca 5355 [not located]; Ca 5358 [not located]

Calamocladus longifolia Brongniart C 4627 [not located]; Ca 5357 [not located]

Cordaianthus pitcairniae Lindley & Hutton C 4669 [not located]

Cordaites principalis (Germar) Ca 5364 [not located]; Ca 5365 [not located]; Ca 5366

[not located]; Ca 5367 [not located]; Ca 5368 [not located]; Ca 6435 [not located]

Lepidophloios acerosus Lindley & Hutton Ca 5387 [not located]

Neuropteris sp. Cb 97

Neuropteris sp. Cb 98) in micaceous shale, a lithology not mentioned in the paper

Neuropteris sp. Cb 99

Neuropteris flexuosa Sternberg C 4656 [not located]; Cb 72 [not located]; Cb 84 [not

located]; Cb 64a, b; Cb 67a, b; Cb 69 a, b; Cb 73a, b; Cb 76; Cb 77; Cb 78; Cb 80; Cb 81;

Cb 85; Cb 86; Cb 87; Cb 88; Cb 93a, b; Cb 94a, b; Cb 95a, b.

See also specimens figured by Bolton 1926.

Neuropteris gigantea Sternberg Cb 83 [not located]; Cb 62a, b; Cb 66a, b; Cb 68a, b;

Cb 71a, b; Cb 74a, b; Cb 75a, b; Cb 90a, b; Cb 82.

See also specimens figured by Bolton 1926.

Neuropteris loshii Brongniart Cb 70 a, b; Cb 79; Cb 91a, b; Cb 102

Neuropteris macrophylla Brongniart Cb 92a, b

See also specimens figured by Bolton 1926

Neuropteris obliqua Brongniart Cb 100

Neuropteris rarinervis Bunbury Cb 101

Neuropteris rotundifolia Brongniart Cb 63

Neuropteris tenuifolia (Schlotheim) Cb 58

See also specimens figured by Bolton 1926

Pinnularia capillaceae Lindley & Hutton C 4619 [not located]

Pinnularia columnaris (Artis) Ca 6438 [not located]

Sigillaria principes Weiss Ca 5388 [not located]

Sigillaria saulii Brongniart Ca 5338 [not located]; Ca 5339 [not located].

Sphenopteris obtusiloba Brongniart Ca 5384 [not located]

We cannot locate representatives of the following species, listed by Bolton, and can find no reference to such material having been in the collections:

Alethopteris lonchitica (Schlotheim)

Bothrodendron punctatum Lindley & Hutton

Calamostachya sp.

Lepidodendron aculeatum Sternberg

Mariopteris muricata Schlotheim

Neuropteris heterophylla Brongniart

Neuropteris ovata Hoffman

Sigillaria reniformis Brongniart
Sphenophyllum cuneifolium (Sternberg)
Sphenopteris laurenti (Weiss)
Sphenopteris trifoliata (Artis)
Stigmaria ficoides Brongniart
Trigonocarpum parkinsoni Brongniart

Bolton also listed (pp. 171-172) species identified in material from unspecified colliery spoil tips and 'direct from the mines through the kindness of the managers'. We have some such material, but have excluded it from this catalogue because of the lack of specific published data.

b) BOLTON, E. 1929. On the cuticle of certain species of *Neuropteris*, Brongn. *Annals of Botany*, 43, 414-415.

From her acknowledgements it is clear that Bolton used material from our collections for the preparation of transfers. Unfortunately the preparations are not present in the collection, presumably destroyed by enemy action in 1940, and the specimens used cannot, as far as we can tell at present, be identified in our records.

c) CAVE, R. 1977. Geology of the Malmesbury district. *Memoir of the Geological Survey of Great Britain*, viii + 343 pp., pls.

On pp. 214-215 Cave records a number of Lower Cornbrash, Jurassic, species from the Gas Council's pipe trench, running parallel with, and to the east of, the Foss Way, 1 mile WSW of Foxley Church. This list includes lignite, the reference being based on a single fragment [Cd 154] collected at grid reference ST 8808 8557 by M.L.K. Curtis.

d) CROOKALL, R. 1925. On the fossil flora of the Bristol and Somerset Coalfield. *Geological Magazine*, 62, 145-180.

On p. 148 Crookall lists the following species from the museum's collection:

Caulopteris cistii Brongniart

"from Radstock"

Cyclopteris orbicularis Brongniart

New Rock Series; Golden Valley, near Bristol.

?Dicksonites pluckenetii (Schlotheim)

New Rock Series; Golden Valley, near Bristol.

Neuropteris? heterophylla Brongniart

? Farrington Series; Norton Hill Pit, Bristol.

Sigillaria major Lindley & Hutton

Pennant Rock; Downend, Bristol.

Sigillaria major Lindley & Hutton

Radstock Series; Camerton, near Radstock.

We cannot locate any of these specimens in the collection; they are presumed to have been destroyed by enemy action in 1940. We have not yet identified this material in our records and cannot add anything to the basic information given by Crookall.

e) CROOKALL, R. 1928. Palaeozoic species of *Vetacapsula* and *Palaeoxyris*. Summary of *Progress of the Geological Survey for 1927*, part 2, 87-107, pl. I.

Crookall refers to two specimens from our collection. One, *Palaeoxyris helicteroides* (Morris) (p. 98), had been figured by Bolton (1911) (see catalogue of type and figured specimens).

The second (p. 100) was *Palaeoxyris carbonaria* Schimper [Cb 1566, two items, presumably specimen and counterpart] from between the Brooch and Thick Coals, Yorkian Series; Coseley, near Dudley. This was probably donated by Mrs. Mary E. Moysey in 1923, rather than by her son, L. Moysey, as stated by Crookall. These specimens cannot be located and are presumed to have been destroyed by enemy action, 1940.

f) HARRIS, T.M. 1938. *The British Rhaetic flora*. British Museum (Natural History), London, xi + 84 pp., pls. I-IV.

Harris figured, described and cited a number of specimens from our collections. The material he cited is:

p. 14 Botryococcus braunii Kützing

Cb 2663 [occasional colonies; with *Naiadita lanceolata* (see catalogue of type and figured specimens) and "Branched filaments resembling moss rhizoids", q.v.].

Rhaetic; Southmead Laundry, Westbury, Bristol.

Donated by W.H.V. Wickes, 1924.

p. 65 Naiadita lanceolata Buckman, emend. Harris

Cb 2660 ["Leafy shoots, a fish scale on a different plane ..."]; Cb 2661 ["Leafy shoots, a rather small *Estheria* shell ..."]; Cb 2662 ["Shoots with gemma cups, archegonia, etc.; a poorly preserved specimen of "insect's compound eye.""].

Rhaetic; Southmead Laundry, Westbury, Bristol.

Donated by W.H.V. Wickes, 1924.

Ca 7686 ["Fairly good shoots with archegonia, fragments of sporangia, two fairly good specimens of "compound eye of insect."]; Ca 9277 ["Shoots and leaves of *Naiadita*. Scale of *Lepidotus*; other smaller fish scales ...". With *Hepaticites solenotus* (see catalogue of type and figured specimens).]; Cb 1538 ["... shoots and gemma cups ... two specimens of the body of a fairly large insect ..."].

[Bed k], Rhaetic; [Coldharbour Farm] (Ca 7686)/Coldharbour Farm (Ca 9277)/near Coldharbour Farm (Cb 1538), Redland, Bristol.

Donated by W.H.V. Wickes, 1924 (Ca 7686, Ca 9277) and 1927 (Cb 1538).

C 4558 ["Isolated leaves."] (2 specimens).

Rhaetic; Pylle Hill, Totterdown, Bristol.

Donated by E. Wilson, 1891.

Cb 2664 ["Isolated leaves and stems"].

Rhaetic; Coldharbour Farm, Redland, Bristol.

Donated by Rev. H.H. Winwood, 1921.

Two other papers on Naiadita were published by Harris,

1937. Naiadita, a strange fossil bryophyte. British Association for the Advancement of Science. Report of the Annual Meeting, Nottingham, 1937, pp. 429, 523.

1939 Naiadita, a fossil bryophyte with reproductive organs. Annales Bryologici, 12, 57-70. No specimens are specifically mentioned, but it is made clear that the descriptions are based on the same material as the 1938 account.

p. 71 Hepaticites solenotus Harris

Ca 9279c [" ... unbranched piece of thallus." With *Naiadita lanceolata* (see catalogue of type and figured specimens)].

Rhaetic; [Coldharbour Farm], Redland, Bristol.

Donated by W.H.V. Wickes, 1924.

p. 72 "Branched filaments resembling moss rhizoids" Cb 2663 [with Botryococcus braunii and Naiadita lanceolata, qq.v.]

Rhaetic; Southmead Laundry, Westbury, Bristol.

Donated by W.H.V. Wickes, 1924.

g) KIDSTON, R. 1888. On the fossil flora of the Radstock Series of the Somerset and Bristol Coalfield (Upper Coal Measures). *Transactions of the Royal Society of Edinburgh*, 33 (2), 335 - 417, pl. XIX - XXVIII.

Kidston cited, described and figured a number of specimens from our collection. The cited specimens are:

p. 342 Stylocalamites (Calamites) suckowii Brongniart [not traced]

Upper Coal Measures; Camerton, near Radstock.

(Calamites suckowii Brongniart pars; Crookall, R. 1969. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (5). 634).

This specimen has not been located, or identified in our records.

p. 392 Caulopteris primaeva Lindley & Hutton [C 4646].

Coal Measures

[Radstock Group, Upper Westphalian D, according to Kidston]; Camerton, near Radstock.

(Caulopteris lindleyi (Brongniart): Crookall, R. 1955. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section]. Memoirs of the Geological Survey ... Palaeontology, 4 (1), 59-60).

Acquisition history not known.

pp. 403-404? *Trigonocarpus dawsii* Lindley & Hutton [not positively identified].

Upper Coal Measures; Camerton, near Radstock.

Acquisition history not known.

Our records show Kidston to have had two specimens of *Trigonocarpus* on loan. These cannot be positively identified, but one may be the specimen registered Cd 141.

h) KIDSTON, R. 1893. On the fossil flora of the South Wales Coal Field, and the relationship of its strata to the Somerset and Bristol Coal Field. *Transactions of the Royal Society of Edinburgh*, 37 (3), 565-614, pl. I.

Lepidophloios acerosus Lindley & Hutton [C 4636, Cd 142] (see catalogue of type and figured specimens).

 PEARCE, J.C. 1842. On the mouths of Ammonites, and on fossils contained in laminated beds of the Oxford Clay, discovered in curting the Great Western Railway, near Christian Malford in Wiltshire. Proceedings of the Geological Society of London, 3, 592-594.
 [Also in Annals and Magazine of Natural History, 9, 578-579.]

Pearce refers to the presence of "Lignite, with oysters sometimes affixed to it" and a "succulent plant".

Pearce's MS (1816—) 'Catalogue of British Organic Remains The Collection of Joseph Chaning Pearce' lists the following:

Catalogue no: [Oxford Clay] 1 "a piece of wood with oysters attached". Railway, Chippenham, Wiltshire. [Cd 155].

Catalogue no: [Oxford Clay] 2 "Do. showing structure". Railway, Chippenham, Wiltshire. [Cd156]. Catalogue no: [Oxford Clay] 3 "Do." Railway near Christian Malford, Wiltshire. [Cd 157].

Pearce's MS 'Catalogue ...' does not make any reference to a "succulent plant", but there is an entry, no: [Oxford Clay] 5 to "a series of branches of a coniferous plant" which is almost certainly the material concerned.

The "coniferous plant" material has been labelled by T.M. Harris as follows:

Cb 3998-Cb 3999 Brachyphyllum expansum (Sternberg) Seward Cb 4000-Cb 4007 Brachyphyllum desnoyersii (Brongniart) Saporta

Cb 4008 Brachphyllum crucis Kendall

Cb 4009 Pagiophyllum sp.

Catalogue no: [Oxford Clay] 6 is unspecified plant material from this locality and it may also be relevant. Unfortunately no specimen or specimens so numbered have, as yet, been identified in the collection.

j) FITTON, W.H. 1836. Observations on some of the strata between the Chalk and the Oxford Oolite in the south-east of England. *Transactions of the Geological Society*, (2) 4, 103-388.

James deC. Sowerby contributed the palaeontological lists, descriptions and figures. A single botanical specimen from our collection is cited:

Silicified wood bored by *Pholas* Ca 5627

Greensand, Cretaceous; Blackdown Hills, Devon/Somerset ex J.S. Miller collection, purchased 1831.

k) TUTCHER, J.W. & TRUEMAN, A.E. 1925. The Liassic rocks of the Radstock district (Somerset). *Quarterly Journal of the Geological Society of London* 81 (4), 595-662, pls. XXVIII-XLI.

p. 608 Otozamites obtusus Lindley & Hutton Cd 45, Cd 158

Bed below Sun Bed, White Lias, Jurassic; Rockhill [Quarry], Radstock
Purchased from J.W. Tutcher, 1942.

1) WARNE, L.G.G. 1937. Speedwell Pit. *Proceedings of the Bristol Naturalists' Society*, (4), 8 (3), 306-309.

We have representatives of the following species from the New Rock Series, Speedwell Pit. The material was donated by Warne in 1933.

Annularia radiata Brongniart Cd 103 - Cd 105; Cd 106 [with Lepidodendron ophiurus Brongniart, q.v.]; Cd 140 [with Pinnularia capillacea [Lindley & Hutton].

Calamites carinatus Sternberg Cd 107

Calamites cisti Brongniart Cd 108

Calamites undulatus Sternberg Cd 109 - Cd 111

Lepidodendron aculeatum Sternberg Cd 112 - Cd 116

Lepidodendron lycopodiodes Kidston Cd 117

Lepidodendron obovatum Sternberg Cd 121 - Cd 124

Lepidodendron ophiurus Brongniart Cd 106 [with Annularia radiata Brongniart, q.v.]; Cd 125 - Cd 127

Lepidodendron rimosum Sternberg Cd 119 - Cd 120

Lepidodendron simile Kidston Cd 118

Mariopteris nervosa Brongniart Cd 128 - Cd 130

Neuropteris heterophylla Brongniart Cd 131 - Cd 132; Cd 133 [with Neuropteris pseudogigantea Potonie, q.v.]

Neuropteris pseudogigantea Potonie Cd 133 [with Neuropteris heterophylla Brongniart, q.v.]

Neuropteris tenuifolia Schlotheim Cd 134 - Cd 135

Sigillaria mammilaris Brongniart Cd 137 - Cd 139

Sphenophyllum saxifragaefolium Sternberg Cd 136

We cannot locate representatives of the following species listed by Warne, and we can find no reference to such material having been in the collections.

Annularia galiodes Lindley & Hutton

Bothrodendron minutifolium Boulay

Diplotmena cf furcatum Brongn.

Lepidodendron lanceolatum Lesqx.

Lepidophloios acerosus Lindley & Hutton

Lepidophloios laricinus Sternberg

Lepidostrobus morissianus Lesqx.

Neuropteris obliqua Brongn.

Palaeostachys sp.

Samaropsis sp.

Sigillaria boblayi Brongn.

Sigillaria scutellata Brongn.

Sigillaria tesselata Brongn.

Sphenophyllum cuneifolium Sternb.

Sphenophyllum myriophyllum Crepin

Sphenopteris dilatata Lindley & Hutton

Sphenopteris sp.

Stigmaria ficoides Sternberg

m) WETHERED, E. 1880. The Carboniferous flora of the Bristol coalfield. *Proceedings of the Cotteswold Naturalists' Field Club*, 7, 73-92, 3 pls., 1 folding section [opp. p. 73].

Wethered made several donations of palaeobotanical material from the Lower Coal Series of the Kingswood area during 1877 and 1878. We assume some of this material to be representative of the species from the Lower Coal Series listed in his paper. Listed below are the species noted by Wethered; given in brackets are the 'Donors Book' numbers which may refer to representative material of that species.

Two Foot Seam pp. 79-80

Ulodendron lindleyanum [= Bothrodendron lindleyanum] [4245] Calamites ramosus, Cordaites [4222] Great Vein pp. 80-81

Ulodendron lindleyanum [= Bothrodendron lindleyanum] [4245]

Calamites radiatus, Cordaites [4222]

Toad Vein p. 81

Calamites undulatus, Cordaites [4222]

Sigillaria monostachya [4296]

Sigillaria pachyderma var ("... to be described as a new species ... Sigillaria Etheridgii ..."). S. scutellata, S. tesselata, S. murchisonae, Sigillaria sp. [4222, 4209, 4219].

Sphenopteris obtusiloba, S. irregularis, Stigmaria [4209]

Upper Five Coals p. 82

Sigillaria sp. [4222, 4209, 4219], Cordaites [4222]

roof of Doxall Seam p. 82

calamites [4222]

fireclays, shales etc., above the Doxall Seam

Stigmaria [4222]

Coal seam beyond the Doxall Seam, Belgium Pit

Cordaites [4222], Sigillaria nodosa [4222, 4209, 4219]

Only three of Wethered's specimens have so far been identified in the collection:

Lepidophloios laricinus Sternberg Cd 160

Lower Coal Series; Kingswood, Bristol

A genus not recorded in Wethered's paper]

Sigillaria sp. Cd 159 [Donors Book 4209]

Lower Coal Series; spoil tip, Kingswood, Bristol

Cordaites with Stigmaria Cd 101

Roof of Two Foot Seam, Kingswood Series, Lower Coal Series;

Kingswood, Bristol.

Wethered op. cit. p. $8\overline{7}$ refers to a specimen of *Stigmaria* "surrounded with Cordaites" from the roof of an unspecified seam being in the Bristol Museum. The specimen mentioned above [Cd 101] is presumably that to which he refers.

Two other specimens were registered, but these cannot be located and are presumed to have been destroyed by enemy action, 1940.

Sigillaria tesselata Brongt. Ca 6443

Lower Coal Series; Kingswood, Bristol

Sigillaria discophora König Ca 6436

Over Two Foot Seam, Lower Coal Series; Kingswood, Bristol.

n) WICKES, W.H. 1900. A new Rhaetic section at Bristol. *Proceedings of the Geologists'* Association, 16 (7), 421 - 423.

WICKES, W.H. 1901. A Rhaetic section at Redland. *Proceedings of the Bristol Naturalists' Society*, NS 9 (2), 99 - 103. pl. 1 [opp. p. 100].

Both papers deal with a section through "a low hill, on which Coldharbour Farm stands", New Clifton [= Redland], Bristol. We have assumed the material variously labelled "Redland", "Coldharbour Farm" and "near Coldharbour Farm" all to be from this locality.

In the species lists in these papers reference is made to the presence of *Naiadites acuminatus* [= *Naiadita lanceolata* J. Buckman] in Bed k [1900, p. 422; 1901, pl. 1. opp p. 100]. We have the following:

Ca 7687 [Harris, 1938, figures gemma cup, sporangium wall and perianth of *N. lanceolata* on this block]; Ca 9278 [Harris, 1938, figures perianth of *N. lanceolata* on this block]; Ca 9279 a, b, c [Harris, 1938, figures spores, gemma cup and perianths of *N. lanceolata* of these blocks]; Ca 7686 cited by Harris, 1938]; Ca 9277 [cited by Harris, 1938]; Cb 1538 [cited by Harris, 1938]. Donated by W.H.V. Wickes, 1924.

Cd 145 - Cd 147

Bequeathed by W.H.V. Wickes, 1933

Cd 148

Purchased from J.W. Tutcher, 1942. [This specimen bears a printed label of the type used by Wickes on which is written, in Wickes' hand, "Lycopodites".]

Cd 143 - Cd 144

Donated by W.T. Gordon, 1950. [Cd 143 is labelled in Wickes' hand; Cd 144 bears a printed label of the type used by Wickes.]

o) WILSON, E. 1891. On a section of the Rhaetic rocks at Pylle Hill (Totterdown), Bristol. Quarterly Journal of the Geological Society of London, 47, 545 - 549. WILSON, E. 1894. The Rhaetic rocks of Pylle Hill, Bristol. Proceedings of the Bristol Naturalists' Society, NS 7 (3), 213 - 231.

Both papers deal with the same section at Pylle Hill. Naiadita is recorded from Beds i, k and l. [1891, table opp. p. 546; 1894, p. 229]. We have only two specimens from Bed i [Cb 3586, Cb 3587], donated by Wilson in 1891, and two [C 4558] [cited by Harris, 1938] from an unspecified horizon, or horizons.

4. SPECIMENS RECORDED AS BEING IN THE CITY OF BRISTOL MUSEUM & ART GALLERY, BUT NOW IN OTHER INSTITUTIONS

Neuropteris macrophylla Brongniart

figured

Huish Slivin Vein, Radstock Group, Westphalian D, Coal Measures; Radstock, Somerset

CROOKALL, R. 1959. Fossil Plants of the Carboniferous Rocks of Great Britain [Second Section], *Memoirs of the Geological Survey ... Palaeontology*, 4 (2), pl. XL fig. 2. Crookall, op. cit., explanation of plate, states the specimen to be from the "Moore Collection, Bristol Museum and Art Gallery". Moore's collection, and specimens ascribed to it, were in store in Bristol Museum from the early years of the last war until 1959. Crookall must have seen the specimen during that period. It is now in Bath Museum, registered number M 3546.

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Downend, Bristol 12	laricinus, Lepidophloios 15, 16
Dudley 12	laurenti, Sphenopteris 12
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Farrington Series/Group 3	Lepidodendron obovatum Sternberg 15
? Farrington Series 12	Lepidodendron ophiurus Brongniart 15
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ficoides, Stigmaria 12, 15	Lepidophloios acerosus (Lindley &
fish scale(s) 13	Hutton) 4, 11, 15
FITTON, W.H. 14	Lepidophloios laricinus Sternberg 15, 16
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Golden Valley, near Bristol 12	macrophylla, Neuropteris 7, 17
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Hard Vein, Coal Measures 3-4	mammilaris, Sigillaria 15
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Hepaticites solenotus Harris 9, 13	Hutton) 4
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? heterophylla, Neuropteris 12	Mastopora fava (Salter) 2
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Huish Slivin Vein, Coal Measures 17	MILLER, J.S. 14
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