

## Arthur Smith Woodward's fossil fish type specimens

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## REVISION HISTORY

This supplement was published First Online by the Geological Society on October 21<sup>st</sup> 2015 as part of the volume entitled Arthur Smith Woodward: His Life and Influence on Modern Vertebrate Palaeontology (see Bernard & Smith 2016). The intention was, and remains, to update the supplement on an annual basis with further images, taxonomy changes and any other relevant information. Principal changes will be listed in this section under the year of revision. The header date will be updated annually as will the table of contents, if only to reflect page number changes.

### 2016

#### ACKNOWLEDGEMENTS AND COPYRIGHT

This update could not have been achieved without assistance from many people. We hope the following list is complete but we apologise if we have inadvertently missed any person or institution.

Many of the new images of type specimens held in UK institutions have been sourced from the GB3D Type Fossils Online website:

<http://www.3d-fossils.ac.uk> 

These images and the associated information are made available under a Creative Commons Attribution-NonCommercial-Share Alike 3.0 Unported License and are © Jisc GB3D Type Fossils Online project partners. A link to the specific page on the website is included immediately below the host museum registration number. In the list of updates below those featured on the GB3D website are marked with an asterisk.

Eliza Howlett and Hilary Ketchum, Collections Managers, Earth Collections, Oxford University Museum of Natural History for images of *Scaphodus heteromorphus* and *Notidanus daviesii*.

Matt Riley of the Sedgwick Museum of Earth Sciences for providing images of *Anomoeodus confertus* and *Protosphyraena keeping*.

Mark Evans of the New Walk Museum & Art Gallery, Leicester for providing the image and further information on *Browneichthys ornatus*.

Matt Williams of the Bath Royal Literary and Scientific Institution for the images of the series of teeth associated with *Xenacanthus (Diplodus) moorei*.

Sébastien Olive and Bernard Mottequin of the Institut royal des Sciences naturelles de Belgique for assistance in locating type specimens in Belgium and to Annelise Folie of the same institute for the images of *Athrodon tenuis*.

Paulo Brito of the Universidade do Estado do Rio de Janeiro and Martha Richter of the Natural History Museum for images of *Rhinoptera prisca*, *Paleopiquitinga brasiliensis* and *Macracara prisca*.

Thomas Mörs of the Swedish Museum of Natural History. The images of *Onychodus arcticus*, *Ganolepis gracilis*, *Holoptychius monilifer* and *Leptolepis nathorsti* are by Emma van Eelen (© 2016 Swedish Museum of Natural History).

## UPDATES

- Corvaspis kingi* – image and information added (p. 7).  
*Birkenia kingi* – image and information added, name updated (p. 9).\*  
*Acanthaspis decipiens* – information added and institution name updated (p. 10).  
*Acanthaspis minor* – information added and institution name updated (p. 10).  
*Asteroplax scabra* – information added and institution name updated (p. 10).  
*Bothriolepis antarctica* – images and reference added (p. 11).  
*Diplodus moorei* – images, information and notes added (p. 13).\*  
*Diplodus problematicus* – image and information added, name updated (p. 14).  
*Acrodus nitidus* – tentative generic name change and information added (p. 17).  
*Notidanus daviesii* – image and information added (p. 30).\*  
*Odontaspis houzeaui* - images and information added (p. 37).  
*Squatina cranei* - images and information added (p. 44).\*  
*Edestus newtoni* – image and information added (p. 50).\*  
*Rhinoptera prisca* – images and information added (p. 49).  
*Psammodus salopiensis* – image added (p. 70).  
*Byssacanthoides debenhami* – images added and information updated (p. 72).  
*Acanthodes nitidus* – image added (p. 73).  
*Browneichthys ornatus* – image and information added (p. 75).  
*Ganolepis gracilis* – image added and institution name updated (p. 77).  
*Coccolepis andrewsi* - images and information added (p. 82).  
*Dictyopyge(?) draperi* – image added (p. 88).  
*Coelodus arcuatus* - image and information added (p. 94).  
*Scaphodus heteromorphus* - images and information added (p. 101).\*  
*Anomoeodus carteri* – images of holotype and two paratypes plus information added (pp. 102-103).\*  
*Anomoeodus confertus* – image and information added (p. 103).  
*Anomoeodus superbus* – images of holotype and five paratypes plus information added (p. 104).\*  
*Anomoeodus willetti* – images of holotype and information added (p. 105).  
*Athrodon tenuis* – images and information added (p. 105).  
*Athrodon crassus* – image and information added (p. 106).\*  
*Heterostrophus phillipsi* – images of holotype and information added (p. 109).\*  
*Lepidotus mawsoni* – information added (p. 114).  
*Lepidotus souzai* – information added (p. 115).  
*Megalurus mawsoni* – genus name updated and information added (pp. 130-131).  
*Protosphyraena ornata* – information added and institution name updated (p. 134).  
*Protosphyraena depressa* – image of holotype and information added (p. 135).\*  
*Protosphyraena keepingi* – image and information added (p. 136).

- Protosphyraena tenuirostris* – images of holotype and information added (p. 136).\*
- Belonostomus(?) carinatus* – information added (p. 139).
- Eurycormus grandis* – image of holotype and information added (p. 141).\*
- Urenchelys anglicus* – images of holotype and information added (p. 153).\*
- Knightia brasiliensis* – additional image, name change and information added (p. 159).
- Scombroclupea scutata* – information updated (pp. 160-161).
- Pachyrhizodus subulidens* – image and information added (p. 167).\*
- Dercetis latiscutatus* – image of holotype and information added (p. 176).\*
- Leptolepis nathorsti* – images including lectotype added plus information updated (p. 191).
- Macracara prisca* – additional image and information added (p. 174).
- Onychodus anglicus* – image and information added (p. 193).\*
- Onychodus arcticus* – image and information added (p. 207).
- Holoptychius monilifer* – image of holotype added and information updated. (p. 208).
- Holoptychius antarcticus* – images added and information updated (p. 209).

## REFERENCES

Two references added:

- Bernard & Smith 2016 (p. 218).  
Brito & Richter 2016 (p. 218).

## DISCLAIMER

This document is not intended to represent a comprehensive taxonomic review of the Smith Woodward type specimens but will provide some basic information and additional references that the reader may find useful.

## INTRODUCTION

This supplement contains brief details of all the Smith Woodward's fossil fish type specimens that we know of. Images are provided for many of the type specimens that reside in the Natural History Museum (NHM) collection in London. These images often display:

- The specimen registration number written on a small yellow oval/circular disc.
- A small green circular disc indicating a specimen that has been described and/or figured.
- A small red circular disc indicating the specimen is a holotype.
- A speck or blob of red wax used by Smith Woodward to indicate a specimen that has been included in his catalogue of fossil fishes (Woodward 1889; 1891; 1895; 1901) .

The specimens are ordered taxonomically in the same manner they are arranged in the NHM. A list of the countries from which the specimens originate are given in Appendix A. Most of the NHM fossil fish collection has been acquired over many years from amateur collectors and some dealers. Brief details of those relevant to this supplement are presented in Appendix B.

The authors would like to particularly acknowledge the skills of Kevin Webb, Jonathan Jackson, Harry Taylor and Phil Hurst of the Natural History Museum Photographic Studio for the hundreds of images they have taken as part of this project.

## TYPES

**Group: Agnatha**

**Class: Pteraspidomorphi**

**Order: Pteraspidiformes**



NHMUK PV P 16446 Holotype



NHMUK PV P 16447

*Corvaspis kingi*. Woodward, 1934. Holotype. *Gen. nov.*

Shield.

Downtonian; Earnstrey Brook, Corvedale, Shropshire.

Presented by W. Wickham King Esq, March 1933.

1934. Note on a New Cyathaspidian Fish from the Upper Downtonian of Corvedale. *Quart. J. Geol. Soc.* **90**, 566-567, pl. XIX, fig. 1.



NHMUK PV P 4797

*Cyathaspis macculloughi*. Woodward, 1891. Holotype.

Imperfect dorsal shield.

Lower Old Red Sandstone ("Ledbury Shales", Pandy, Herefordshire.): Englands Hill Quarry, Bodenham.

Presented by Sir Richard Owen, K.C.B., 1884.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II, p. 172, pl. IX, fig. 4.

**Group: Agnatha**  
**Class: Cephalaspidomorphi**  
**Order: Anaspidiformes**



NHMUK PV P 6813-1

*Euphanerops longaevus*. Woodward, 1900. Holotype. *Gen. nov.*

Near complete specimen.

Scaumenac Bay, Province of Quebec.

Purchased from R.F. Damon, July 1892.

1900. On a new Ostracoderm (*Euphanerops longaevus*) from the Upper Devonian of Scaumenac Bay, Province of Quebec, Canada. *Ann. Mag. Nat. Hist.* (7) 5, 416-419, pl. X, fig. 1.



NHMUK PV P 6813-2

*Euphanerops longaevus*. Woodward, 1900. Holotype. *Gen. nov.*

Near complete specimen.

Scaumenac Bay, Province of Quebec.

Purchased from R.F. Damon, July 1892.

1900. On a new Ostracoderm (*Euphanerops longaevus*) from the Upper Devonian of Scaumenac Bay, Province of Quebec, Canada. *Ann. Mag. Nat. Hist.* (7) 5, 416-419, pl. X, fig. 1a.



OUM C.31384a-d

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=15000171>

*Tahulalepis kingi* (Woodward), Blom et al, 2002)

*Birkenia kingi*. Woodward, 1948. Holotype.

A few scales, arranged in their natural order belonging to the anterior ventral region of the trunk.

Downtonian Formation (Grey Grit, Ledbury Passage Beds): Herefordshire.

Pridoli Epoch (Silurian Period) (416 – 418.7 Ma B.P.)

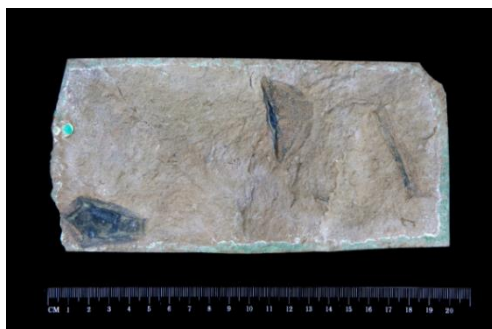
Oxford University Museum of Natural History.

1948. On a new Species of *Birkenia* from the Downtonian Formation of Ledbury, Herefordshire. *Ann. Mag. Nat. Hist.* (11) **14**, 876-878, 2 text figs.

2002. Blom, H., Märss, T. & Miller, C. G. Silurian and earliest Devonian birkeniid anaspids from the Northern Hemisphere, *Earth and Environmental Science Transactions of the Royal Society of Edinburgh*, Vol. 92, Issue 3, Sept. 2001, pp. 263-323.

## Group: Pisces

### Class: Placodermi



NHMUK PV OR 43039

*Coccosteus disjectus*. Woodward, 1891. Type.

Associated median ventral plates.

Upper Old Red Sandstone: Kiltorcan, Kilkenny, Ireland.

Purchased 1871.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II, p. 292, pl. VIII, figs. 1,2.



NHMUK PV P 6755

*Coccosteus canadensis*. Woodward, 1892. Holotype.

Impression of external aspect of head shield.

Upper Devonian: Scaumenac Bay, Province of Quebec, Canada.

Purchased from R.F. Damon, July 1892.

1892. Further Contributions to Knowledge of the Devonian Fish-fauna of Canada. *Geol. Mag.* (3) 9, p. 483, pl. XIII, fig. 2.

NO IMAGE CURRENTLY AVAILABLE

*Acanthaspis decipiens*. Woodward, 1891. Type.

Associated dorsal and ventral shields.

Lower Devonian, Red Micaceous Sandstone: Dickson Bay.

Swedish Museum of Natural History, Stockholm.

1891. The Devonian Fish-fauna of Spitzbergen. *Ann. Mag. Nat. Hist.* (6) 8, p. 4, pl. I, figs. 1-3.

NO IMAGE CURRENTLY AVAILABLE

*Acanthaspis minor*. Woodward, 1891. Type.

Portion of occipital plate and portion of pectoral appendage.

Lower Devonian, Red Micaceous Sandstone: Dickson Bay.

Swedish Museum of Natural History, Stockholm.

1891. The Devonian Fish-fauna of Spitzbergen. *Ann. Mag. Nat. Hist.* (6) 8, p. 6, pl. II, figs. 2-5.

NO IMAGE

*Notopetalichthys hillsi*. Woodward, 1941. Type. *Gen. nov.*

Head shield.

Middle Devonian: Goodravale, NSW, Australia.

Australian Museum, Sydney, Australia.

1941. The Head Shield of a New Macropetalichthyid Fish (*Notopetalichthys hillsi*, gen. et sp. nov.) from the Middle Devonian of Australia. *Ann. Mag. Nat. Hist.* (11) 8, 91-96, pl. I, 1 text fig.

NO IMAGE CURRENTLY AVAILABLE

*Asteroplax scabra*. Woodward, 1891. Type. *Gen. nov.*

Cranial shield.

Upper Devonian Ironstone: Mimers Valley, Spitzbergen.

Swedish Museum of Natural History, Stockholm.

1891. The Devonian Fish-fauna of Spitzbergen. *Ann. Mag. Nat. Hist.* (6) 8, p. 11, pl. III, figs. 1, 2.

NO IMAGE

*Asterolepis incisa*. Woodward, 1900. Syntypes.

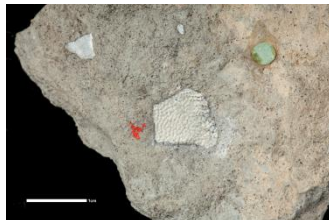
Anterior median dorsal plate, left anterior dorso-lateral plate, left anterior ventro-lateral plate.

Upper Devonian: East Greenland.  
?Royal State Museum, Stockholm.

1900. Notes on some Upper Devonian Fish-remains discovered by Professor A. G. Nathorst in East Greenland. *Bihang. K. Svenska Vet.-Akad. Handl.* 26, Afd. IV, no. 10, p. 6, plate, figs. 11-13.



NHMUK PV P 12545 Woodward  
1921 fig. 4. Lectotype.



NHMUK PV P 12543 Woodward  
1921 fig. 3, White 1968, text fig. 3.  
Syntype.



NHMUK PV P 12544 White 1968,  
text fig. 4. Syntype.



NHMUK PV P 12546 Woodward  
1921 fig. 5. Syntype.



NHMUK PV P 12547a counterpart  
of Woodward 1921 fig. 6.  
Syntype.



NHMUK PV P 12549 Woodward  
1921 fig. 7. Syntype.



NHMUK PV P 12550. Syntype.



NHMUK PV P 12551 Woodward  
1921 fig. 8. Syntype.



NHMUK PV P 12552 Woodward  
1921 fig. 9. Syntype.

*Bothriolepis antarctica*. Woodward, 1921. Syntypes (8) and lectotype.

Parts of the head and trunk and plates of the appendages.

Upper Devonian: Granite Harbour, Antarctica.  
Terra Nova Collection.

1921. Fish-remains from the Upper Old Red Sandstone of Granite Harbour, Antarctica. British Museum (Natural History), London, *Brit. Antarctic ('Terra Nova') Exped.* 1910, *Nat. Hist. Rep. Geol.* 1, no. 2, p. 52, pl. 1, figs. 3-9.

White, E. I. 1968. Devonian Fishes of the Mawson-Mulock Area, Victoria Land, Antarctica. Trans-Antarctica Expedition Committee, *Trans-Antarctica Expedition 1955-1958, Scientific Reports*, 16, Geology, p. 13, text figs. 3-9.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Xenacanthiformes**

NO IMAGE

*Pleuracanthus parvidens*. Woodward, 1908. Type.

Nearly complete fish.

Wianamatta Shales, Triassic Hawkesbury Series: St. Peters, Sydney, NSW.

?Geological Survey, NSW.

1908. The Fossil Fishes of the Hawkesbury Series at St. Peter's; with Note by W. S. DUN. *Mem. Geol. Surv. N.S. Wales, Palaeont.* **10**, p. 2, pl. I, fig. 1.



M0003



M0003a



M0003b



M0003c



M0003d



M0003e



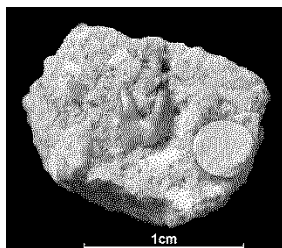
M0003f



M0004a\_1



M0004a\_2



BRLSI M0004

Images courtesy of the Bath Royal Literary and Scientific Institution except BRLSI M0004

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=25001578>

*Xenacanthus moorei*. (Woodward)

*Diplodus moorei*. Woodward, 1889. Syntypes (?M0004 & M0004a).

Two teeth.

Keuper, Triassic: Ruishton, near Taunton.

Bath Royal Literary and Scientific Institution, Charles Moore Collection.

1889. Palaeichthyological Notes. 1. On the so-called *Hybodus keuperinus*, Murch. and Strickl. 2. On *Diplodus Moorei*, sp. nov., from the Keuper of Somersetshire. 3. On a Symmetrical Hybodont Tooth from the Oxford Clay of Peterborough. 4. On a Maxilla of *Saurichthys* from the Rhaetic of Aust Cliff, near Bristol. *Ann. Mag. Nat. Hist.* (6) 3, p. 299, pl. XIV, fig. 4 and 5.

Note: It has not been possible to positively identify which of the specimens illustrated above were figured by Smith Woodward in the 1889 paper but it is believed this set of teeth includes the two figured.



NHMUK PV P 3026

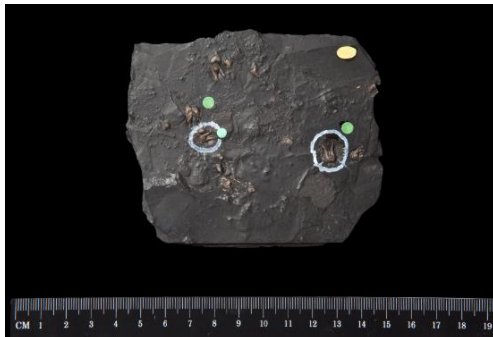
*Diplodus tenuis*. Woodward, 1889. Syntypes.

Remains of associated teeth.

Coal-Measures: Carluke, Lanarkshire.

Enniskillen Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 11, pl. VI, figs. 2, 4.



NHMUK PV OR 20695

*Diplodus tenuis*. Woodward, 1889. Syntype.

Tooth (on the left).

Coal-Measures: Carluke, Lanarkshire.

Purchased 1847.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 11, pl. VI, fig. 3.



NHMUK PV P 6540

*Doliodus problematicus*. (Woodward)

*Diplodus problematicus*. Woodward, 1892. Type.

Single tooth.

Lower Devonian: Campbelltown, New Brunswick.

Purchased from Mr. Damon.

1892. On the Lower Devonian Fish-fauna of Campbellton, New Brunswick. *Geol. Mag.* (3) 9, 1-6, pl. 1, fig 2.

1966. Gardiner, B. G. Catalogue of Canadian fossil fishes, Contribution No. 68, Life Sciences, Royal Ontario Museum, University of Toronto.

2003. Millar, R. F., Cloutier, R. & Turner, S. *Nature* 425, p.501-504.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Ctenacanthiformes**



NHMUK PV P 7608

*Phobodus brodiei*. Woodward, 1893. Syntype.

Tooth.

Lower Keuper: Pendock, Worcestershire. (label)

Upper Keuper: Shrewley, Warwickshire. (reference)

P.B. Brodie Collection, purchased Oct. 1895.

1893. Palaeoichthyological Notes, *Ann. Mag. Nat. Hist.* (6) **12**, p.283, pl. X, fig. 3.

NO IMAGE

*Cratoselache pruvosti*. Woodward, 1924. Type.

Head and imprint of part of the pectoral arch.

Lower carboniferous Limestone: Denée, Belgium

L'Abbaye de Maredsous, Belgique.

1924. Un Nouvel Elasmobranchie (*Cratoselache pruvosti*, gen. et sp. nov.) du Calcaire Carbonifère Inférieur de Denée. *Soc. Géol. Belge*, Livre Jubilaire, **1**, 57-62, 1 plate.

**Class: Chondrichthyes,**  
**Subclass: Elasmobranchii,**  
**Order: Hybodontiformes**



NHMUK PV P 5873

*Acrodus leiodus*. Woodward, 1887. Lectotype.

Lateral tooth.

Great Oolite: Minchinhampton, Gloucestershire.

Byne Collection.

1887. Notes on some Post-Liassic Species of *Acrodus*. *Geol. Mag.* (3) **4**, 101-105, text fig. 1.



NHMUK PV OR 47293a

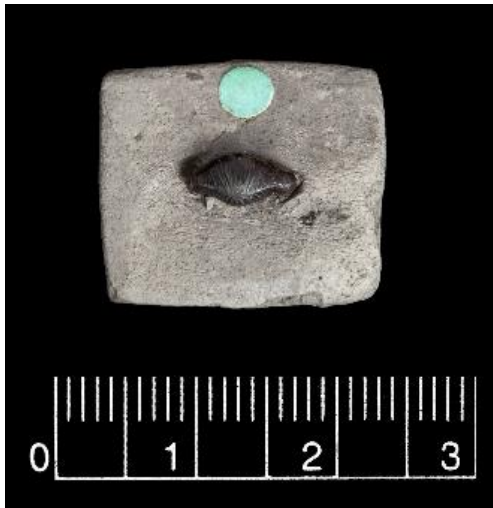
*Acrodus levis*. Woodward, 1887. Syntype.

Tooth.

Gault: Folkestone, Kent.

Gardner Collection.

1887. Notes on some Post-Liassic Species of *Acrodus*. *Geol. Mag.* (3) 4, 101-105, text fig. 3.



NHMUK PV P 11a

*Acrodus levis*. Woodward, 1887. Syntype.

Tooth.

Gault: Folkestone, Kent.

Gardner Collection.

1887. Notes on some Post-Liassic Species of *Acrodus*. *Geol. Mag.* (3) 4, 101-105, text fig. 2.



NHMUK PV P 5536

?*Lissodus nitidus*. (Woodward), Brito & Richter 2016.

*Acrodus nitidus*. Woodward, 1888. Holotype.

**Tooth.**

Ilhas Group, Marfim Formation (?late Hauterivian), Recôncavo Basin, municipality of Salvador, state of Bahia, Brazil.

Presented by Joseph Mawson, Esq., 1888.

1888. Notes on some Vertebrate Fossils from the Province of Bahia, Brazil, collected by Joseph Mawson, Esq., F.G.S. *Ann. Mag. Nat. Hist.* (6) 2, 132-136.

BRITO, P. M. & RICHTER, M. 2016. The contribution of Sir Arthur Smith Woodward to the palaeoichthyology of Brazil – Smith Woodward's types from Brazil. In: JOHANSON, Z., BARRETT, P. M., RICHTER, M. & SMITH, M. (eds) *Arthur Smith Woodward: His Life and Influence on Modern Vertebrate Palaeontology*. Geological Society, London, Special Publications, 430, 201-217. First published online October 14, 2015, <http://doi.org/10.1144/SP430.12>



NHMUK PV OR 21349

*Hybodus ensis*. Woodward, 1916. Type.

**Tooth.**

Purbeck Beds: Swanage, Dorset.

Purchased from P. Doran, July 1847.

1916. The Fossil Fishes of the English Wealden and Purbeck Formations. Part I. *Palaeont. Soc. Lond.*, p. 11, pl. II, fig. 6.



NHMUK PV P 11877

*Hybodus parvidens*. Woodward, 1916. Type.

Tooth.

Wealden, Wadhurst Clay: Hastings.

Presented by Revs. P. Teilhard & F. Pelletier, July 1912.

1916. The Fossil Fishes of the English Wealden and Purbeck Formations. Part I. *Palaeont. Soc. Lond.*, p. 12, pl. II, fig. 8.



NHMUK PV OR 33474

*Hybodus levis*. Woodward, 1889. Holotype.

Tooth.

Bathonian (Stonesfield Slate): Oxfordshire.

Purchased, 1858.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 270, pl. XI, fig. 5.



NHMUK PV P 6869-1

*Asteracanthus ornatissimus* var. *flettonensis*. Woodward, 1888. Part of type.

Hinder tooth.

Oxford Clay; Fletton, near Peterborough.

Purchased from Alfred N. Leeds Esq., May 1892.

1888. On some Remains of the Extinct Selachian *Asteracanthus* from the Oxford Clay of Peterborough, preserved in the collection of Alfred N. Leeds, Esq., of Eyebury. *Ann. Mag. Nat. Hist.* (6) 2, 336-342, pl. XII, fig. 4.



NHMUK PV P 6869-2

*Asteracanthus ornatissimus* var. *flettonensis*. Woodward, 1888. Part of type.

Tooth.

Oxford Clay; Fletton, near Peterborough.

Purchased from Alfred N. Leeds Esq., May 1892.

1888. On some Remains of the Extinct Selachian *Asteracanthus* from the Oxford Clay of Peterborough, preserved in the collection of Alfred N. Leeds, Esq., of Eyebury. *Ann. Mag. Nat. Hist.* (6) 2, 336-342, pl. XII, fig. 9.



NHMUK PV P 6869-3

*Asteracanthus ornatissimus* var. *flettonensis*. Woodward, 1888. Part of type.

Two transversely divided teeth.

Oxford Clay; Fletton, near Peterborough.

Purchased from Alfred N. Leeds Esq., May 1892.

1888. On some Remains of the Extinct Selachian *Asteracanthus* from the Oxford Clay of Peterborough, preserved in the collection of Alfred N. Leeds, Esq., of Eyebury. *Ann. Mag. Nat. Hist.* (6) 2, 336-342, pl. XII, fig. 10.



NHMUK PV P 6869-4

*Asteracanthus ornatissimus* var. *flettonensis*. Woodward, 1888. Part of type.

Teeth.

Oxford Clay; Fletton, near Peterborough.

Purchased from Alfred N. Leeds Esq., May 1892.

1888. On some Remains of the Extinct Selachian *Asteracanthus* from the Oxford Clay of Peterborough, preserved in the collection of Alfred N. Leeds, Esq., of Eyebury. *Ann. Mag. Nat. Hist.* (6) 2, 336-342.



NHMUK PV P 6870-1

*Asteracanthus ornatissimus* var. *flettonensis*. Woodward, 1888. Part of type.

Teeth of upper jaw.

Oxford Clay; Fletton, near Peterborough.

Purchased from Alfred N. Leeds Esq., May 1892.

1888. On some Remains of the Extinct Selachian *Asteracanthus* from the Oxford Clay of Peterborough, preserved in the collection of Alfred N. Leeds, Esq., of Eyebury. *Ann. Mag. Nat. Hist.* (6) 2, 336-342, pl. XII, fig. 2.



NHMUK PV P 6870-2

*Asteracanthus ornatissimus* var. *flettonensis*. Woodward, 1888. Part of type.

Anterior and posterior dorsal fin spines.

Oxford Clay; Fletton, near Peterborough.

Purchased from Alfred N. Leeds Esq., May 1892.

1888. On some Remains of the Extinct Selachian *Asteracanthus* from the Oxford Clay of Peterborough, preserved in the collection of Alfred N. Leeds, Esq., of Eyebury. *Ann. Mag. Nat. Hist.* (6) 2, 336-342, pl. XII, figs 5 and 6.



NHMUK PV P 6871

*Asteracanthus ornatissimus* var. *flettonensis*. Woodward, 1888. Part of type.

Right ramus of mandible.

Oxford Clay; Fletton, near Peterborough.

Purchased from Alfred N. Leeds Esq., May 1892.

1888. On some Remains of the Extinct Selachian *Asteracanthus* from the Oxford Clay of Peterborough, preserved in the collection of Alfred N. Leeds, Esq., of Eyebury. *Ann. Mag. Nat. Hist.* (6) 2, 336-342, pl. XII, fig. 1.



NHMUK PV P 6867

*Asteracanthus ornatissimus* var. *flettonensis*. Woodward, 1888. Part of type.

Cephalic spine.

Oxford Clay; Fletton, near Peterborough.

Purchased from Alfred N. Leeds Esq., May 1892.

1888. On some Remains of the Extinct Selachian *Asteracanthus* from the Oxford Clay of Peterborough, preserved in the collection of Alfred N. Leeds, Esq., of Eyebury. *Ann. Mag. Nat. Hist.* (6) 2, 336-342, pl. XII, fig. 3.



NHMUK PV P 5275 & NHMUK PV P 5275a

*Acrodus ornatus*. Woodward, 1889. Holotype (P.5275) and paratype (P.5275a).

Teeth.

Wealden: Brixton, Isle of Wight.

Fox Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 296, pl. XIII, fig. 10 (holotype).

NO IMAGE

*Hylaeobatis problematica*. Woodward, 1916. Type.

Tooth without root.

Wealden: Brook, Isle of Wight.

York Museum.

1916. The Fossil Fishes of the English Wealden and Purbeck Formations. Part I. *Palaeont. Soc. Lond.*, p. 19, pl. V, figs. 1-5.



NHMUK PV P 51

*Ptychodus levis*. Woodward, 1894. Syntype.

Tooth.

Chalk Marl: Dover, Kent.

Gardner Collection.

1894. Notes on the Sharks' Teeth from British Cretaceous Formations. *Proc. Geol. Assoc.* **13**, 190-200, pl. V, fig 6.



NHMUK PV P 6524

*Ptychodus levis*. Woodward, 1894. Syntype.

Tooth.

Lower Chalk: Blue Bell Hill, Burham, Kent.

Presented S.J. Hawkins, 1891.

1894. Notes on the Sharks' Teeth from British Cretaceous Formations. *Proc. Geol. Assoc.* **13**, 190-200, pl. V, fig. 5.



NHMUK PV P 2681

*Ptychodus multistriatus*. Woodward, 1889. Type.

Group of naturally associated teeth of the lower jaw.

Turonian and Senonian: Kent.

Enniskillen Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 146, pl. V, figs. 4-6.

**Class: Chondrichthyes**

**Subclass: Elasmobranchii**



NHMUK PV P 1132

*Palaeospinax egertoni*. Woodward, 1889. Holotype.

Crushed head, teeth and vertebrae.

Lower Lias: Württemberg.

Egerton Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 324.



NHMUK PV P 1295\_1

*Synechodus nitidus*. Woodward, 1911. Holotype.

Imperfect jaws.

Lower Chalk, Zone of *Holaster subglobus*: Snodland, Kent.

Egerton Collection.

1911. The Fossil Fishes of the English Chalk. Part VI. *Palaeont. Soc. Lond.*, p. 219, pl. XLVI, fig. 3.



NHMUK PV P 1295\_2

*Synechodus nitidus*. Woodward, 1911. Holotype.

Imperfect jaws.

Lower Chalk, Zone of *Holaster subglobus*: Snodland, Kent.

Egerton Collection.

1911. The Fossil Fishes of the English Chalk. Part VI. *Palaeont. Soc. Lond.*, p. 219, pl. XLVI, fig. 3.



NHMUK PV P 1295\_3

*Synechodus nitidus*. Woodward, 1911. Holotype.

Imperfect jaws.

Lower Chalk, Zone of *Holaster subglobus*: Snodland, Kent.

Egerton Collection.

1911. The Fossil Fishes of the English Chalk. Part VI. *Palaeont. Soc. Lond.*, p. 219, pl. XLVI, fig. 3.



NHMUK PV P 1295\_4

*Synechodus nitidus*. Woodward, 1911. Holotype.

Imperfect jaws.

Lower Chalk, Zone of *Holaster subglobus*: Snodland, Kent.

Egerton Collection.

1911. *The Fossil Fishes of the English Chalk. Part VI. Palaeont. Soc. Lond.*, p. 219, pl. XLVI, fig. 3.



NHMUK PV P 1295\_5

*Synechodus nitidus*. Woodward, 1911. Holotype.

Imperfect jaws.

Lower Chalk, Zone of *Holaster subglobus*: Snodland, Kent.

Egerton Collection.

1911. *The Fossil Fishes of the English Chalk. Part VI. Palaeont. Soc. Lond.*, p. 219, pl. XLVI, fig. 3.



NHMUK PV OR 9297

*Synechodus tenuis*. Woodward, 1889. Holotype.

Tooth.

Lower Greensand: Maidstone, Kent.

Mantell Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 329, pl. XI, fig. 21.



NHMUK PV OR 9297a

*Synechodus tenuis*. Woodward, 1889. Paratype.

Tooth.

Lower Greensand: Maidstone, Kent.

Mantell Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 329.



NHMUK PV OR 9297b

*Synechodus tenuis*. Woodward, 1889. Paratype.

Tooth.

Lower Greensand: Maidstone, Kent.

Mantell Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 329.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Heterodontiformes**  
**Family: Heterodontidae**



NHMUK PV OR 25858

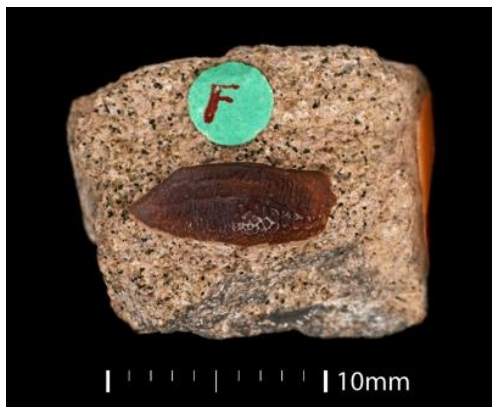
*Cestracion sulcatus*. Woodward, 1889. Syntype.

Tooth.

Upper Greensand: Maidstone, Kent.

Dixon Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 333, pl. XIII, fig. 11.



NHMUK PV OR 25858a

*Cestracion sulcatus*. Woodward, 1889. Syntype.

Tooth.

Upper Greensand: Maidstone, Kent.

Dixon Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 333, pl. XIII, fig. 12.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Hexanchiformes**  
**Family: Hexanchidae**



NHMUK PV P 2303a\_1

*Notidanus dentatus*. Woodward, 1889. Syntype.

Lower tooth.

"Lower Greensand": Amuri Bluff, New Zealand.

By exchange, 1876.

1889. On the Palaeontology of the Selachian Genus *Notidanus*, Cuvier. *Geol. Mag.* (3) 3, p. 214, pl. VI, fig. 18.



NHMUK PV P 2303

*Notidanus dentatus*. Woodward, 1889. Syntype.

Upper tooth.

"Lower Greensand": Amuri Bluff, New Zealand.

By exchange, 1876.

1889. On the Palaeontology of the Selachian Genus *Notidanus*, Cuvier. *Geol. Mag.* (3) 3, p. 214, pl. VI, fig. 17.



NHMUK PV P 1227

*Notidanus lanceolatus*. Woodward, 1886. Holotype.

Upper tooth.

Gault: (?)Folkestone.

Egerton Collection.

1886. On the Palaeontology of the Selachian Genus *Notidanus*, Cuvier. *Geol. Mag.* (3) 3, p. 214, pl. VI, fig. 16.



OUM J.38369

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=15001534>

*Notidanus daviesii*. Woodward, 1886. Holotype.

Tooth.

Oxford Clay: St. Clements, near Oxford.

Oxfordian Age (Jurassic Period) (155.6 – 161.2 Ma B.P.)

Oxford University Museum of Natural History.

1871. Phillips, J. *Geology of Oxford and the Valley of the Thames*. Clarendon Press, Oxford, xxiv + 523 pp., diags I-CCVII. p. 306; ? pl. XII, fig. 18 (left)

1886. On the Palaeontology of the Selachian Genus *Notidanus*, Cuvier. *Geol. Mag.* (3) 3, p. 212, pl. VI, fig. 8.

1890. Woodward, A. S. & Sherborn, C. D. *A Catalogue of British Fossil Vertebrata*, Dulau & Co., p. 128.

Note: This specimen suffered damage in the past resulting in the partial loss of the crown of the major cusp and total loss of the minor cusps.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Carcharhiniformes**  
**Family: Carcharhinidae**

NO IMAGE

NHMUK PV OR 41706a

*Galeocerdo jaekeli*. Woodward, 1895. Holotype.

Tooth.

Chalk: Kent.

Toulmin Smith Collection.

1895. Note on a supposed Tooth of *Galeocerdo* from the English Chalk. *Ann. Mag. Nat. Hist.* (6) 15, p. 3-4, pl. I, fig. 5.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Carcharhiniformes**  
**Family: Scyliorhinidae**



NHMUK PV P 5541

*Palaeoscyllium minus*. Woodward, 1889. Holotype.

Near complete fish.

Lower Kimmeridgian: Eichstätt, Bavaria.

By exchange, 1888.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 339, pl. XVI, fig. 4.



NHMUK PV OR 47288

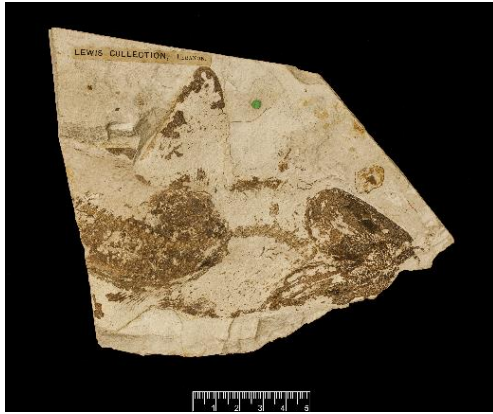
*Scyllium dubium*. Woodward, 1889. Holotype.

Group of teeth associated with remains of cartilage and a vertebral centrum.

Lower Chalk (Turonian): Dover, Kent.

Gardner Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 341, pl. XVI, figs. 7,8.



NHMUK PV P 4777

*Scyllium (?) tumidens*. Woodward, 1889. Holotype.

Skull, traces of about 30 anterior vertebrae, pectoral arch and the right pectoral fin.

Upper Cretaceous (Senonian): Sahel Alma, Lebanon.

Purchased, 1884.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 342, pl. XVI, fig. 6.

**Class: Chondrichthyes**

**Subclass: Elasmobranchii**

**Order: Orectolobiformes**

**Family: Orectolobidae**



NHMUK PV P 5890

*Cantioscyllium decipiens*. Woodward, 1889. Holotype.

Near complete specimen.

Lower Chalk: Burham, Kent.

Enniskillen Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 347.



NHMUK PV P 11211-1

*Crossorhinus jurassicus*. Woodward, 1919. Holotype.

Near complete specimen, in counterpart.

Lithographic Stone: Solnhofen, Bavaria.

Purchased Oct. 1913.

1919. On two new Elasmobranch Fishes (*Crossorhinus jurassicus*, sp. nov., and *Protospinax annectans*, gen. et sp. nov.) from the Upper Jurassic Lithographic Stone of Bavaria. *Proc. Zool. Soc.*, p. 231, pl. I, fig 1.



NHMUK PV P 11211-2

*Crossorhinus jurassicus*. Woodward, 1919. Holotype.

Near complete specimen, in counterpart.

Lithographic Stone: Solnhofen, Bavaria.

Purchased Oct. 1913.

1919. On two new Elasmobranch Fishes (*Crossorhinus jurassicus*, sp. nov., and *Protospinax annectans*, gen. et sp. nov.) from the Upper Jurassic Lithographic Stone of Bavaria. *Proc. Zool. Soc.*, p. 231.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Lamniformes**



NHMUK PV OR 43135cd\_1

*Carcharias (Scoliodon) eocaenus*. Woodward, 1889. Syntypes.

Two teeth.

Lower Eocene (London Clay): Highgate Archway.

Wetherell Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 436.



NHMUK PV OR 43135cd\_2

*Carcharias (Scoliodon) eocaenus*. Woodward, 1889. Syntypes.

Two teeth.

Lower Eocene (London Clay): Highgate Archway.

Wetherell Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 436.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Lamniformes**  
**Family: Lamnidae**



NHMUK PV P 5761

*Lamna serra*. Woodward, 1889. Nominated syntypes.

Two teeth.

Danian. Mont Aimé, Marne, France.

Purchased, 1851.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 401.



NHMUK PV OR 48956b\_1

*Lamna arcuata*. Woodward, 1894. Holotype.

Tooth, outer view.

Upper Chalk (zone of *Belemnitella mucronata*): Norwich.

Bayfield Collection (purchased Jan. 1878).

1894. Notes on the Sharks' Teeth from British Cretaceous Formations. *Proc. Geol. Assoc.* 13, 190-200, pl. VI, fig. 10.



NHMUK PV OR 48956b\_2

*Lamna arcuata*. Woodward, 1894. Holotype.

Tooth, inner view.

Upper Chalk (zone of *Belemnitella mucronata*): Norwich.

Bayfield Collection (purchased Jan. 1878).

1894. Notes on the Sharks' Teeth from British Cretaceous Formations. *Proc. Geol. Assoc.* 13, 190-200, pl. VI, fig. 10.

**Class: Chondrichthyes**

**Subclass: Elasmobranchii**

**Order: Lamniformes**

**Family: Odontaspidae**



NHMUK PV OR 46362

*Scapanorhynchus(?) gigas*. Woodward, 1889. Syntypes.

Four teeth with imperfect roots.

Greensand: Cambridgeshire.

Purchased, 1875.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 359.



NHMUK PV P 4774

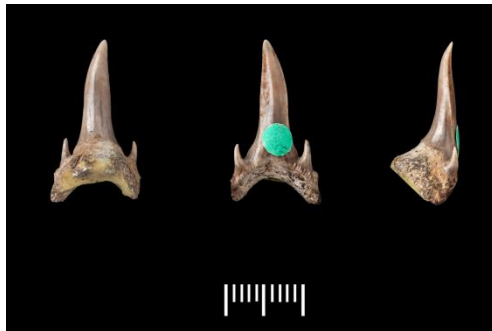
*Scapanorhynchus elongates*. Woodward, 1889. Holotype.

Head and anterior portion of trunk.

Upper Cretaceous: Sahel Alma, Mt. Lebanon, Lebanon.

Purchased, 1884.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 353, Pl. XVII, fig. 8.



NHMUK PV P 5830 (Woodward, 1891, Fig. 7)

NHMUK PV P 5830a (Woodward, 1891, Fig. 8)

NHMUK PV P 5830 & NHMUK PV P 5830a

*Odontaspis houzeau*. Woodward, 1891. ?Syntypes.

Two teeth.

Danian: Ciply, Belgium.

Houzeau Collection. Presented Nov. 1888.

1891. Notes on some Fish-remains from the Lower Tertiary and Upper Cretaceous of Belgium, Collected by Monsieur A. Houzeau de Lehaie. *Geol. Mag.* (3) 8, 104-114, pl. III, figs. 7,8.

**Class: Chondrichthyes**

**Subclass: Elasmobranchii**

**Order: Pristiophoriformes**

**Family: Pristiophoridae**

NO IMAGE

*Propristiophorus tumidens*. Woodward, 1932. Type. *Gen. nov.*

Anterior half of near complete specimen.

Upper Cretaceous: Sahel Alma, Mount Lebanon.

American University Museum, Beirut.

1932. A Cretaceous Pristiophorid Shark. *Ann. Mag. Nat. Hist.* (10) 10, 476-478, pl. XVIII.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Rajiformes**



NHMUK PV P 4017

*Squatina crassidens*. Woodward, 1889. Holotype.

Imperfect skeleton.

Upper Cretaceous: Sahel Alma, Lebanon.

Purchased R. Damon, April 1883.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 69, pl. II, figs. 1 and 4.



NHMUK PV OR 48105

*Squatina crassidens*. Woodward, 1889. Paratype.

Fragment of large individual displaying a portion of the vertebral column and ribs.

Upper Cretaceous: Hakel, Lebanon.

Purchased R. Damon, 1877.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 70, pl. II, fig. 5.



NHMUK PV OR 49518

*Squatina crassidens*. Woodward, 1889. Paratype.

Middle portion of trunk.

Upper Cretaceous: Hakel, Lebanon.

Purchased R. Damon, 1878.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 69, pl. II, fig. 2.



NHMUK PV OR 49547

*Squatina crassidens*. Woodward, 1889. Paratype.

Basal cartilages of pectoral fin.

Upper Cretaceous: Hakel, Lebanon.

Purchased R. Damon, 1878.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 70, pl. II, fig. 3.



NHMUK PV OR 49546\_1

*Squatina crassidens*. Woodward, 1889. Paratype.

Portion of large individual.

Upper Cretaceous: Hakel, Lebanon.

Purchased R. Damon, 1878.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 70.



NHMUK PV OR 49546\_2

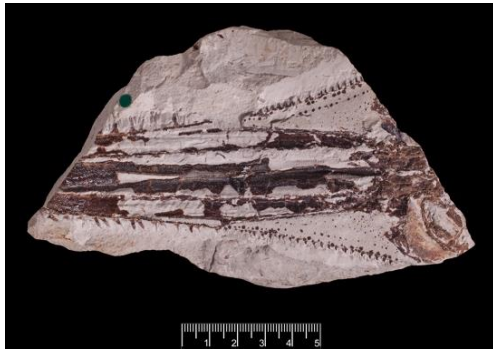
*Squatina crassidens*. Woodward, 1889. Paratype.

Portion of large individual.

Upper Cretaceous: Hakel, Lebanon.

Purchased R. Damon, 1878.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 70.



NHMUK PV P 4776

*Sclerorhynchus atavus*. Woodward, 1889. Holotype.

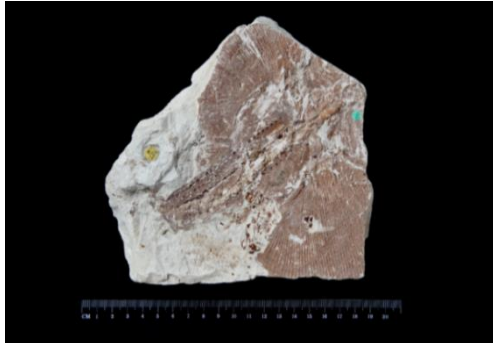
Imperfect rostrum.

Upper Cretaceous: Sahel Alma, Mt. Lebanon, Lebanon.

Purchased, 1884.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 76, pl. III, fig. 1.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Rajiformes**  
**Family: Rajidae**



NHMUK PV P 4015

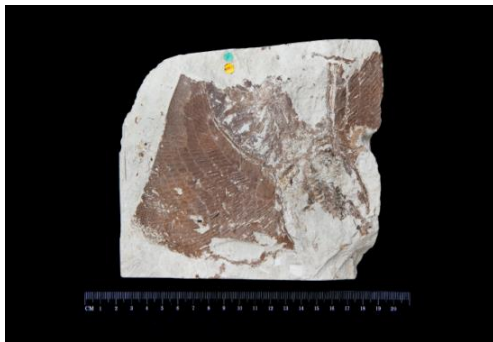
*Raja primarmata*. Woodward, 1889. Syntype.

Preaxial ray of pelvic fin.

Upper Cretaceous (Turonian): Sahel Alma, Lebanon.

Purchased, 1883.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 85, pl. IV, fig 1.



NHMUK PV OR 49517

*Raja primarmata*. Woodward, 1889. Syntype.

Portion of fish in counterpart with NHMUK PV P 4016.

Upper Cretaceous (Turonian): Sahel Alma, Lebanon.

Purchased, 1878

1889. *Catalogue of the Fossil Fishes in the British Musseum (Natural History)*, Part I, p. 85.



NHMUK PV P 4016

*Raja primarmata*. Woodward, 1889. Syntype.

Portion of disk in counterpart with NHMUK PV OR 49517.

Upper Cretaceous (Turonian): Sahel Alma, Lebanon.

Purchased, 1883.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 85, pl. IV, fig. 2.

NO IMAGE

*Cyclobatis longicaudatus*. Woodward, 1942. Type.

Caudal region.

Upper Cretaceous (Turonian): Hakel, Lebanon.

American University of Beirut No. C.413.

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) 9, p. 557, pl.

VII, fig. 2.

**Class: Chondrichthyes**

**Subclass: Elasmobranchii**

**Order: Rajiformes**

**Family: Rhinobatidae**



NHMUK PV P 8775-2

*Protospinax annectans*. Woodward, 1919. Type.

Fragmentary fish.

Lithographic limestone; Solnhofen, Bavaria.

Purchased from Dr. F. Krantz, Jan. 1898.

1919. On Two New Elasmobranch Fishes (*Crossorhinus jurassicus*, sp. nov., and *Protospinax annectans*, gen. et sp. nov.) from the Upper Jurassic Lithographic Stone of Bavaria. *Proc. Zool. Soc.* (1918), 231-235, pl. I, fig. 2.



NHMUK PV P 8775-3

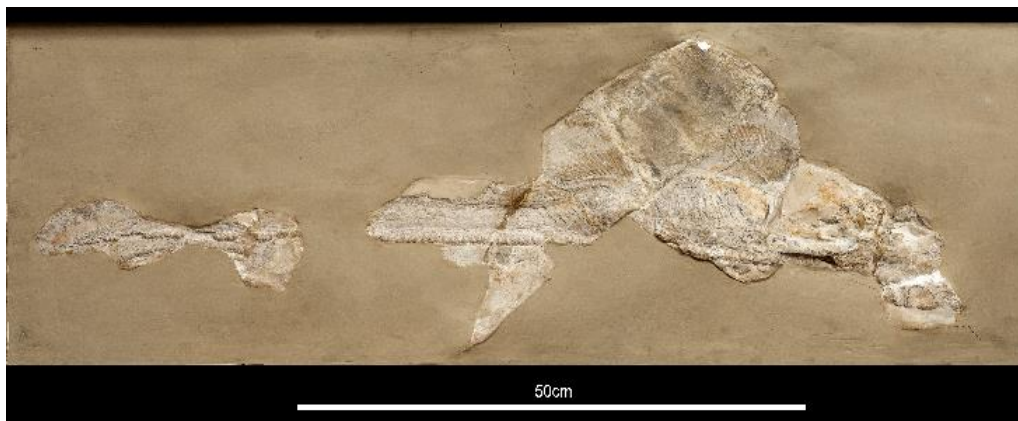
*Protospinax annectans*. Woodward, 1919. Type.

Fragmentary fish.

Lithographic limestone; Solnhofen, Bavaria.

Purchased from Dr. F. Krantz, Jan. 1898.

1919. On Two New Elasmobranch Fishes (*Crossorhinus jurassicus*, sp. nov., and *Protospinax annectans*, gen. et sp. nov.) from the Upper Jurassic Lithographic Stone of Bavaria. Proc. Zool. Soc. (1918), 231-235, pl. I, fig. 2.



NHMUK PV P 8775-1

*Protospinax annectans*. Woodward, 1919. Type.

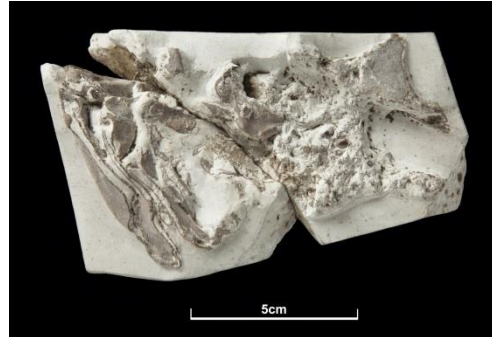
Fragmentary fish.

Lithographic limestone; Solnhofen, Bavaria.

Purchased from Dr. F. Krantz, Jan. 1898.

1919. On Two New Elasmobranch Fishes (*Crossorhinus jurassicus*, sp. nov., and *Protospinax annectans*, gen. et sp. nov.) from the Upper Jurassic Lithographic Stone of Bavaria. Proc. Zool. Soc. (1918), 231-235.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Squatiniformes**  
**Family: Squatinidae**



BMB 007330

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=25001509>

*Squatina cranei*. Woodward, 1888. Holotype.

Crushed skull, with the mandibular and hyoid arches, and an associated fragment of the pectoral fin, with dermal tubercles.

Lower Chalk (zone of *Holaster subglobus*): Clayton, near Brighton, Sussex.

Late Cretaceous Epoch (Cretaceous Period) (65.5 – 99.6 Ma B.P.)

Booth Museum of Natural History.

1888. On some Remains of *Squatina Cranei*, sp. nov., and the Mandible of *Belonostomus cinctus*, from the Chalk of Sussex, preserved in the Collection of Henry Willett, Esq., F.G.S., Brighton Museum. *Quart. J. Geol. Soc.* **44**, p. 144, pl. VII, figs. 1-6.

**Class: Chondrichthyes**  
**Subclass: Elasmobranchii**  
**Order: Myliobatiformes**  
**Family: Myliobatidae**



NHMUK PV OR 25630a\_2

*Myliobatis latidens*. Woodward, 1888. Syntype.

Lower dentition, occlusal surface.

Bracklesham Beds (Middle Eocene): Sussex.

Dixon Collection.

1888. Notes on the determination of the Fossil Teeth of *Myliobatis*, with a Revision of the English Eocene Species. *Ann. Mag. Nat. Hist.* (6) 1, 36-47, pl. I, fig. 12.



NHMUK PV OR 25630a\_1

*Myliobatis latidens*. Woodward, 1888. Syntype.

Lower dentition, root.

Bracklesham Beds (Middle Eocene): Sussex.

Dixon Collection.

1888. Notes on the determination of the Fossil Teeth of *Myliobatis*, with a Revision of the English Eocene Species. *Ann. Mag. Nat. Hist.* (6) 1, 36-47.



NHMUK PV P 1507g\_1

*Myliobatis latidens*. Woodward, 1888. Syntype.

Lower dentition, occlusal surface.

Bracklesham Beds (Middle Eocene): Sussex.

Egerton Collection.

1888. Notes on the determination of the Fossil Teeth of *Myliobatis*, with a Revision of the English Eocene Species. *Ann. Mag. Nat. Hist.* (6) 1, 36-47, pl. I, fig. 11.



NHMUK PV P 1507g\_2

*Myliobatis latidens*. Woodward, 1888. Syntype.

Lower dentition, root.

Bracklesham Beds (Middle Eocene): Sussex.

Egerton Collection.

1888. Notes on the determination of the Fossil Teeth of *Myliobatis*, with a Revision of the English Eocene Species. *Ann. Mag. Nat. Hist.* (6) 1, 36-47.



NHMUK PV P 6856-1

*Myliobatis pentoni*. Woodward, 1893. Type.

Dentition.

Lower Tertiary: Mokkatam Hills, Cairo.

Presented by Surgeon-Captain R.H. Penton, June 1893.

1893. On the Dentition of a Gigantic Extinct Species of *Myliobatis* from the Lower Tertiary Formation of Egypt. *Proc. Zool. Soc.*, 558-559, pl. XLVIII, figs. 1, 1a.



NHMUK PV P 6856-2

*Myliobatis pentoni*. Woodward, 1893. Type.

Dentition.

Lower Tertiary: Mokkatam Hills, Cairo.

Presented by Surgeon-Captain R.H. Penton, June 1893.

1893. On the Dentition of a Gigantic Extinct Species of *Myliobatis* from the Lower Tertiary Formation of Egypt. *Proc. Zool. Soc.*, 558-559, pl. XLVIII, figs. 2, 2a.



NHMUK PV P 5580\_1

*Myliobatis (?) tumidens*. Woodward, 1889. Holotype.

Median tooth.

Red Crag: Suffolk.

Harford Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 119.



NHMUK PV P 5580\_2

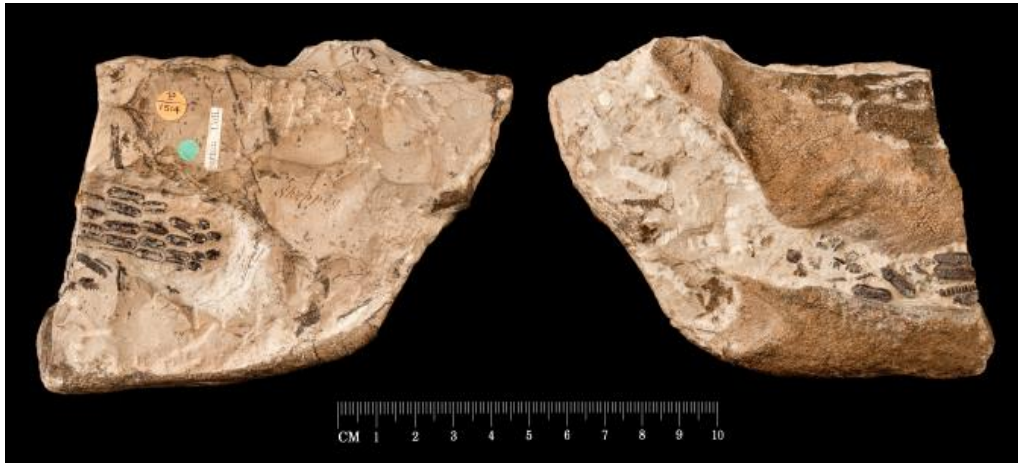
*Myliobatis (?) tumidens*. Woodward, 1889. Holotype.

Median tooth.

Red Crag: Suffolk.

Harford Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 119.



NHMUK PV P 1514

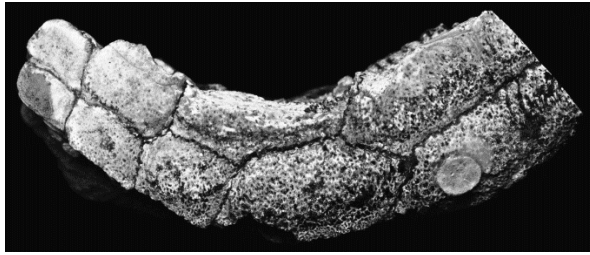
*Rhinoptera daviesii*. Woodward, 1889. Holotype.

Dentition.

London Clay (Lower Eocene): Isle of Sheppey.

Egerton Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 126, pl. III, figs. 6, 6a.



Occlusal view (1907, Fig 6.)



Root view (1907, Fig 7.)

MN(RJ)-2556.1 V.

*Rhinoptera prisca*. Woodward, 1907. Syntypes.

Portion of dentition and two median teeth.

Upper Cretaceous (yellow limestone): Maria Farinha, Province of Pernambuco, north east Brazil.

Museu Nacional, Universidade Federal do Rio de Janeiro.

1907. Notes on some Upper Cretaceous Fish-remains from the Provinces of Sergipe and Pernambuco, Brazil. *Geol. Mag.* (5) 4, p. 195, pl. VII, Figs. 6, 7.

See also BRITO & RICHTER, 2016.

**Class: Chondrichthyes**

**Subclass: Holocephali**



NHMUK PV P 10004

*Listracanthus wardi*. Woodward, 1903. Type.

Multiple spines.

Middle Coal Measures: Smallthorne, N. Staffordshire.

Presented John Ward Esq., 1904.

1903. On the Carboniferous Ichthyodorulite *Listracanthus*. *Geol. Mag.* (4) 10, 486-488, text figs. 1-8.

**Class: Chondrichthyes**  
**Subclass: Holocephali**  
**Order: Edestiformes**



BGS GSM 28346

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=87687>

*Edestus newtoni*. Woodward, 1917. Holotype.

Row of fused symphyseal teeth.

Upper Carboniferous Millstone Grit: Brockholes, near Huddersfield.

Namurian Stage (Carboniferous Period) (313 – 326.4 Ma B.P.)

[Closest ICS interval: Bashkirian Age – Serpukhovian Age]

British Geological Survey.

1917. On a new species of *Edestus* from the Upper Carboniferous of Yorkshire. *Quart. J. Geol. Soc.* **72**, pp. 1-6, pl. I, 1 text fig.

**Class: Chondrichthyes**  
**Subclass: Holocephali**  
**Order: Petalodontiformes**



NHMUK PV P 227a

*Petalodus flabellula*. Woodward, 1889. Holotype.

Detached tooth.

Carboniferous Limestone: Oretton, Shropshire.

Weaver-Jones Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 45, pl. I, fig. 8.



NHMUK PV P 2656

*Petalodus davisii*. Woodward, 1889. Syntype.

Tooth.

Lower Carboniferous Limestone. Armagh, Ireland.

Enniskillen Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 46.



NHMUK PV P 2656a

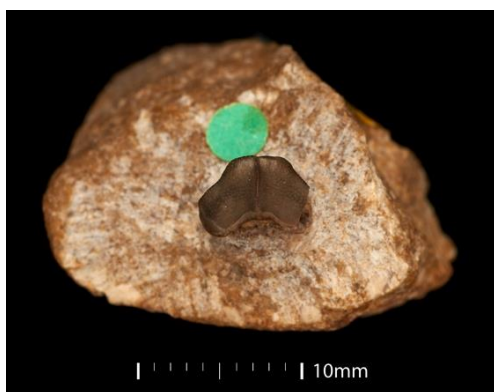
*Petalodus davisii*. Woodward, 1889. Syntype.

Tooth.

Lower Carboniferous Limestone. Armagh, Ireland.

Enniskillen Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 46.



NHMUK PV P 2641-1

*Mesolophodus problematicus*. Woodward, 1889. Syntype.

Detached tooth.

Lower Carboniferous Limestone. Armagh, Ireland.

Enniskillen Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 61, pl. I, fig. 18.



NHMUK PV P 2641-2

*Mesolophodus problematicus*. Woodward, 1889. Syntype.

Detached tooth.

Lower Carboniferous Limestone. Armagh, Ireland.

Enniskillen Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 61, pl. I, fig. 19.

NO IMAGE

*Climaxodus wisei*. Woodward, 1920. Type.

Associated upper and lower jaws.

Calcareous Sandstone: Calderside, near East Kilbride, Lanarkshire.

Royal Scottish Museum, Edinburgh.

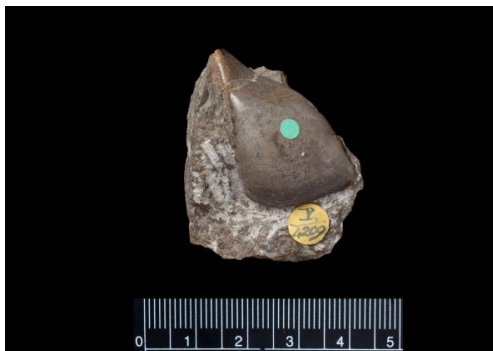
1920. On the Dentition of the Petalodont Shark *Climaxodus*, *Quart. J. Geol. Soc.* **75**, 1-6, pl. I.

**Class: Chondrichthyes**

**Subclass: Holocephali**

**Order: Chimaeriformes**

**Family: Cochliodontidae**



NHMUK PV P 4209

*Psephodus dubius*. Woodward, 1889. Holotype.

Dental plate.

Carboniferous Limestone: Oreton, Shropshire.

Enniskillen Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 183, pl. VI, figs. 13,13a.



NHMUK PV OR 42189

*Psephodus salopiensis*. Woodward, 1889. Holotype.

Dental plate.

Carboniferous Limestone: Oreton, Shropshire.

Baugh Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 182, pl. VI, fig. 14.



NHMUK PV OR 20575b & NHMUK PV P 5859

*Deltodus gibbus*. Woodward, 1889. Syntypes.

Dental plates.

Lower Carboniferous Limestone: Bristol.

Purchased, 1846 & history unknown.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 197, pl. VI, figs. 19 and 20.



NHMUK PV OR 36193

*Deltodus rugosus*. Woodward, 1889. Syntype.

Dental plate.

Carboniferous Limestone: Oreton, Shropshire.

Purchased, 1860.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 198, pl. VI, fig. 22.



NHMUK PV OR 42225

*Deltodus rugosus*. Woodward, 1889. Syntype.

Dental plates.

Carboniferous Limestone: Oreton, Shropshire.

Baugh Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 198.



NHMUK PV OR 42186b-1

*Deltodus rugosus*. Woodward, 1889. Syntype.

Dental plate.

Carboniferous Limestone: Oreton, Shropshire.

Baugh Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 198.



NHMUK PV OR 42186b-2

*Deltodus rugosus*. Woodward, 1889. Syntype.

Dental plate.

Carboniferous Limestone: Oreton, Shropshire.

Baugh Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 198.



NHMUK PV OR 42186b-3

*Deltodus rugosus*. Woodward, 1889. Syntype.

Dental plate.

Carboniferous Limestone: Oreton, Shropshire.

Baugh Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 198.



NHMUK PV OR 42186

*Deltodus rugosus*. Woodward, 1889. Syntype.

Dental plate.

Carboniferous limestone: Oreton, Shropshire.

Baugh Collection.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 198, pl. VI, fig. 21.



NHMUK PV P 10335

*Deltodus garwoodi*. Woodward, 1912. Type.

Dental plate.

Carboniferous limy limestone (*Archaeocidaris* Bed): Top of Shap Abbey Cliff, Shap.

Presented by Prof. E. J. Garwood, Aug. 1906.

1912. Description of the Teeth of Two New Species of Fishes from the Lower Carboniferous Rocks of the North-Western Province. *Quart. J. Geol. Soc.* 68, p. 572, pl. LII, fig. 2.



NHMUK PV P 8697-1\_1

*Deltodus croftoni*. Woodward, 1900. Syntype.

Dental plate.

Dark coloured limestone of the Yoredale Series: on Blackthorn Farm between Long Preston and Slaidburn, North Yorkshire.

Presented by the Rev. Addison Crofton, M.A.

1900. On a new species of *Deltodus* from the Lower Carboniferous (Yoredale Rocks) of Yorkshire. *Ann. Mag. Nat. Hist.* (7) 5, 419-420, pl. X, fig. 2.



NHMUK PV P 8697-1\_2

*Deltodus croftoni*. Woodward, 1900. Syntype.

Dental plate.

Dark coloured limestone of the Yoredale Series: on Blackthorn Farm between Long Preston and Slaidburn, North Yorkshire.

Presented by the Rev. Addison Crofton, M.A.

1900. On a new species of *Deltodus* from the Lower Carboniferous (Yoredale Rocks) of Yorkshire. *Ann. Mag. Nat. Hist.* (7) 5, 419-420, Pl. X, fig. 2a.



NHMUK PV P 8697-1\_3

*Deltodus croftoni*. Woodward, 1900. Syntype.

Dental plate.

Dark coloured limestone of the Yoredale Series: on Blackthorn Farm between Long Preston and Slaidburn, North Yorkshire.

Presented by the Rev. Addison Crofton, M.A.

1900. On a new species of *Deltodus* from the Lower Carboniferous (Yoredale Rocks) of Yorkshire. *Ann. Mag. Nat. Hist.* (7) 5, 419-420, pl. X, fig. 2b.



NHMUK PV P 8697-2\_1

*Deltodus croftoni*. Woodward, 1900. Syntype.

Dental plate.

Dark coloured limestone of the Yoredale Series: on Blackthorn Farm between Long Preston and Slaidburn, North Yorkshire.

Presented by the Rev. Addison Crofton, M.A.

1900. On a new species of *Deltodus* from the Lower Carboniferous (Yoredale Rocks) of Yorkshire. *Ann. Mag. Nat. Hist.* (7) 5, 419-420.



NHMUK PV P 8697-12

*Deltodus croftoni*. Woodward, 1900. Syntype.

Dental plate.

Dark coloured limestone of the Yoredale Series: on Blackthorn Farm between Long Preston and Slaidburn, North Yorkshire.

Presented by the Rev. Addison Crofton, M.A.

1900. On a new species of *Deltodus* from the Lower Carboniferous (Yoredale Rocks) of Yorkshire. *Ann. Mag. Nat. Hist.* (7) 5, 419-420.



NHMUK PV P 11213

*Cochliodus virgatus*. Woodward, 1913. Type.

Anterior dental plate.

Carboniferous Limestone: Stone Gill, near Ravenstonedale.

Presented by Prof. E.J. Garwood, July 1913.

1913. Description of the Teeth of Two New Species of Fishes from the Lower Carboniferous Rocks of the North-Western Province. *Quart. J. Geol. Soc.*, 68, 572-573, pl. LII, fig 4a.

**Class: Chondrichthyes**

**Subclass: Holocephali**

**Order: Chimaeriformes**

**Family: Squalorajidae**



NHMUK PV P 2081

*Squaloraja tenuispina*. Woodward, 1887. Type.

Rostral spine.

Lower Lias; Lyme Regis, Dorsetshire.

Egerton Collection.

1887. On the Anatomy and Systematic Position of the Liassic Selachian *Squaloraja polyspondyla*, Agassiz. *Proc. Zool. Soc.* XXXV, 527-538, pl. LV, fig. 6.

**Class: Chondrichthyes**  
**Subclass: Holocephali**  
**Order: Chimaeriformes**  
**Family: Chimaeridae**



NHMUK PV P 6891

*Brachymylus altidens*. Woodward, 1892. Holotype.

Mandibular tooth.

Oxford Clay: Peterborough.

Leeds Collection.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, p. 13-16.



NHMUK PV OR 41866&7\_1

*Brachymylus minor*. Woodward, 1892. Syntypes.

Mandibular tooth.

Kimmeridge Clay: Weymouth.

Purchased R. J. Smith, Dec. 1869.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, 13-16.



NHMUK PV OR 41866&7\_2

*Brachymylus minor*. Woodward, 1892. Syntypes.

Mandibular tooth.

Kimmeridge Clay: Weymouth.

Purchased R. J. Smith, Dec. 1869.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, 13-16.



NHMUK PV OR 41866a\_1

*Brachymylus minor*. Woodward, 1892. Syntype.

Mandibular tooth.

Kimmeridge Clay: Weymouth.

Purchased R. J. Smith, Dec. 1869.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, 13-16.



NHMUK PV OR 41866a\_2

*Brachymylus minor*. Woodward, 1892. Syntype.

Mandibular tooth.

Kimmeridge Clay: Weymouth.

Purchased R. J. Smith, Dec. 1869.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, 13-16.



NHMUK PV P 6888-1\_1

*Pachymylus leedsii*. Woodward, 1892. Syntype.

Palatine tooth.

Oxford Clay: Peterborough.

Leeds Collection, purchased 1892.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, p. 13-16, pl. III, figs. 1 and 2.



NHMUK PV P 6888-2\_1

*Pachymylus leedsii*. Woodward, 1892. Syntype.

Palatine tooth.

Oxford Clay: Peterborough.

Leeds Collection, purchased 1892.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, p.14, pl. III, fig. 1 (left).



NHMUK PV P 6888-2\_2

*Pachymylus leedsii*. Woodward, 1892. Syntype.

Palatine tooth.

Oxford Clay: Peterborough.

Leeds Collection, purchased 1892.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, p.14, pl. III, fig. 1b.



NHMUK PV P 6889\_1

*Pachymylus leedsii*. Woodward, 1892. Syntype.

Mandibular tooth.

Oxford Clay: Peterborough.

Leeds Collection, purchased 1892.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, p.14, pl. III, fig. 2.



NHMUK PV P 9732\_1

*Chimaera anomala*. Woodward, 1930. Holotype.

Right palatine tooth.

"Miocene: Victoria, Australia", probably from the Kalimnan (Pliocene) of Beaumaris Bay, near Melbourne.

Purchased W. F. H Butler, Oct. 1895.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) 6, 577-582.



NHMUK PV P 9732\_2

*Chimaera anomala*. Woodward, 1930. Holotype.

Right palatine tooth.

"Miocene: Victoria, Australia", probably from the Kalimnan (Pliocene) of Beaumaris Bay, near Melbourne.

Purchased W. F. H Butler, Oct. 1895.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) 6, 577-582.



NHMUK PV P 9732\_3

*Chimaera anomala*. Woodward, 1930. Holotype.

Right palatine tooth.

"Miocene: Victoria, Australia", probably from the Kalimnan (Pliocene) of Beaumaris Bay, near Melbourne.

Purchased W. F. H Butler, Oct. 1895.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) 6, 577-582, text fig. 3.



NHMUK PV P 9732\_4

*Chimaera anomala*. Woodward, 1930. Holotype.

Right palatine tooth.

"Miocene: Victoria, Australia", probably from the Kalimnan (Pliocene) of Beaumaris Bay, near Melbourne.

Purchased W. F. H Butler, Oct. 1895.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) 6, 577-582.



NHMUK PV P 14762\_1

*Chimaera eocenica*. Woodward, 1930. Holotype.

Left palatine tooth.

Oldhaven Beds: Upnor, Kent.

Collected and presented by A. G. Davies Esq., Sept. 1928.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) 6, 577-582, text fig. 1.



NHMUK PV P 14762\_2

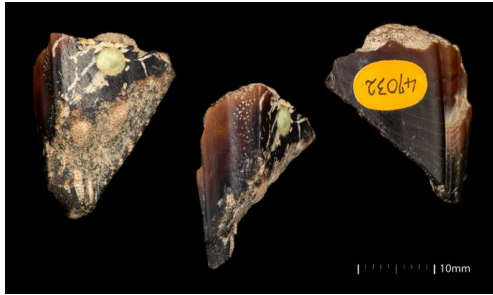
*Chimaera eocenica*. Woodward, 1930. Holotype.

Left palatine tooth.

Oldhaven Beds: Upnor, Kent.

Collected and presented by A. G. Davies Esq., Sept. 1928.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) 6, 577-582.



NHMUK PV OR 47032

*Chimaera pliocenica*. Woodward, 1891. Type.

Right palatine tooth.

Pliocene: Orciano, Tuscany.

Purchased 1875.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II, p. 91, pl. I, figs. 15a, b and c.

**Class: Chondrichthyes**

**Subclass: Holocephali**

**Order: Chimaeriformes**

**Family: Rhinochimaeridae**



NHMUK PV OR 43284\_1

*Elasmodectes secans*. Woodward, 1892. Holotype.

Left mandibular tooth.

Kimmeridge Clay: Weymouth.

Purchased R. J. Smith, Dec. 1871.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, 13-16, pl. III, fig 3b.



NHMUK PV OR 43284\_2

*Elasmodectes secans*. Woodward, 1892. Holotype.

Left mandibular tooth.

Kimmeridge Clay: Weymouth.

Purchased R. J. Smith, Dec. 1871.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, 13-16, pl. III, fig 3a.



NHMUK PV OR 43284\_3

*Elasmodectes secans*. Woodward, 1892. Holotype.

Left mandibular tooth.

Kimmeridge Clay: Weymouth.

Purchased R. J. Smith, Dec. 1871.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, 13-16.



NHMUK PV OR 43284\_4

*Elasmodectes secans*. Woodward, 1892. Holotype.

Left mandibular tooth.

Kimmeridge Clay: Weymouth.

Purchased R. J. Smith, Dec. 1871.

1892. On some Teeth of new Chimaeroid Fishes from the Oxford and Kimmeridge Clays of England. *Ann. Mag. Nat. Hist.* (6) 10, 13-16, pl. III, fig 3b.

**Class: Chondrichthyes**

**Subclass: Holocephali**

**Order: Chimaeriformes**

**Family: Callorhynchidae**



NHMUK PV P 9093\_1

*Callorhynchus crassus*. Woodward, 1930. Holotype.

Left mandibular tooth.

Patagonian Formation: Santa Cruz, Argentine Republic.

Purchased R. F. Damon, Aug. 1899.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) vi, p. 580, text fig. 4a.



NHMUK PV P 9093\_2

*Callorhynchus crassus*. Woodward, 1930. Holotype.

Left mandibular tooth.

Patagonian Formation: Santa Cruz, Argentine Republic.

Purchased R. F. Damon, Aug. 1899.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) vi, p. 580, text fig. 4b.



NHMUK PV P 9093\_3

*Callorhynchus crassus*. Woodward, 1930. Holotype.

Left mandibular tooth.

Patagonian Formation: Santa Cruz, Argentine Republic.

Purchased R. F. Damon, Aug. 1899.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) vi, p. 580.



NHMUK PV P 9094\_1

*Callorhynchus crassus*. Woodward, 1930. Paratype.

Portion of palatine tooth.

Patagonian Formation: Santa Cruz, Argentine Republic.

Purchased R. F. Damon, Aug. 1899.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) vi, p. 580, text fig. 5.



NHMUK PV P 9094\_2

*Callorhynchus crassus*. Woodward, 1930. Paratype.

Portion of palatine tooth.

Patagonian Formation: Santa Cruz, Argentine Republic.

Purchased R. F. Damon, Aug. 1899.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) vi, p. 580.



NHMUK PV P 9094\_3

*Callorhynchus crassus*. Woodward, 1930. Paratype.

Portion of palatine tooth.

Patagonian Formation: Santa Cruz, Argentine Republic.

Purchased R. F. Damon, Aug. 1899.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) vi, p. 580.



NHMUK PV P 9094\_4

*Callorhynchus crassus*. Woodward, 1930. Paratype.

Portion of palatine tooth.

Patagonian Formation: Santa Cruz, Argentine Republic.

Purchased R. F. Damon, Aug. 1899.

1930. (With E. I. WHITE.) On some New Chimaeroid Fishes from the Tertiary Formations. *Ann. Mag. Nat. Hist.* (10) vi, p. 580.

**Class: Chondrichthyes**  
**Subclass: Holocephali**  
**Order: Psammodontiformes**



NHMUK PV OR 36469

*Psammodus salopiensis*. Woodward, 1889. Type.

Associated teeth.

Carboniferous Limestone (zone of *Rhynchonella pleurodon*): Farlow, Shropshire.

Presented by G.E. Roberts Esq., May, 1862.

1889. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part I, p. 105.

**Group: Pisces**  
**Class: Acanthodii**



NHMUK PV P 6538

*Protodus jexi*. Woodward, 1892. Syntype.

Tooth.

Lower Devonian: Campbelltown, New Brunswick.

Exchanged R. Damon, Nov. 1891.

1892. On the Lower Devonian Fish-fauna of Campbellton, New Brunswick, *Geol. Mag.* (3) 9, p. 2, pl. I, fig. 1.

NO IMAGE

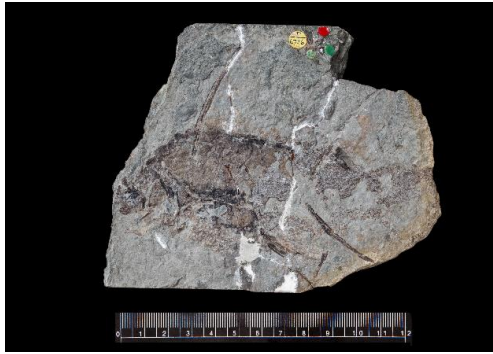
*Gyracanthides murrayi*. Woodward, 1906. Type.

Head and abdominal region of fish.

Carboniferous: Mansfield, Victoria, Australia.

National Museum, Melbourne, Australia.

1906. On a Carboniferous Fish Fauna from the Mansfield District, Victoria. *Mem. Nat. Mus. Melbourne*, no. 1, p. 4, pl. I, fig. 1.



NHMUK PV P 6756-1

*Diplacanthus horridus*. Woodward, 1892. Holotype.

Imperfect fish, in counterpart.

Upper Devonian: Scaumenac Bay, Quebec, Canada.

Purchased 1892.

1892, Further Contributions to Knowledge of the Devonian Fish-fauna of Canada. *Geol. Mag.* (3) 9 p. 482, pl. XIII, fig. 1.



NHMUK PV P 6756-2

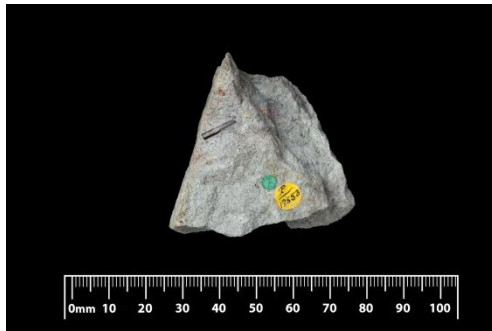
*Diplacanthus horridus*. Woodward, 1892. Holotype.

Imperfect fish, in counterpart.

Upper Devonian: Scaumenac Bay, Quebec, Canada.

Purchased 1892.

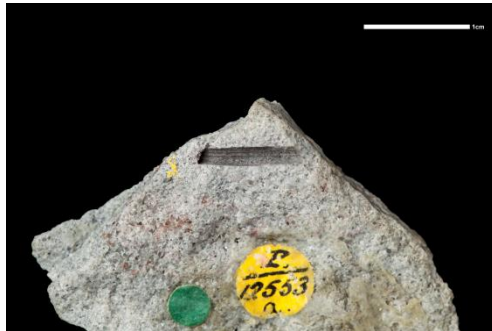
1892, Further Contributions to Knowledge of the Devonian Fish-fauna of Canada. *Geol. Mag.* (3) 9 p. 482.



NHMUK PV P 12553-1 lectotype (part)



NHMUK PV P 12553-2 lectotype (part)



NHMUK PV P 12553a lectotype (counterpart)



NHMUK PV P 12554 paralectotype (Woodward 1921, fig. 11)

*Byssacanthoides debenhami*. Woodward, 1921. *Gen. nov.*

Spine in counterpart.

Upper Devonian: Granite harbour, Antarctica.

Terra Nova Collection.

1921. Fish-remains from the Upper Old Red Sandstone of Granite Harbour, Antarctica. British Museum (Natural History), London, *Brit. Antarctic ('Terra Nova') Exped. 1910, Nat. Hist. Rep. Geol.* **1**, no. 2, p. 54, pl. 1, fig. 10.

White, E. I. 1968. Devonian Fishes of the Mawson-Mulock Area, Victoria Land, Antarctica. Trans-Antarctica Expedition Committee, *Trans-Antarctica Expedition 1955-1958, Scientific Reports*, **16**, Geology, p. 12, text fig. 2.

NO IMAGE

NHMUK PV P 12554

*Byssacanthoides debenhami*. Woodward, 1921. Paralectotype. *Gen. nov.*

Thin section of spine.

Upper Devonian: Granite harbour, Antarctica.

Terra Nova Collection.

1921. Fish-remains from the Upper Old Red Sandstone of Granite Harbour, Antarctica. British Museum (Natural History), London, *Brit. Antarctic ('Terra Nova') Exped. 1910, Nat. Hist. Rep. Geol.* **1**, no. 2, p. 54, pl. 1, fig. 11.



NHMUK PV P 6545

*Acanthodes semistriatus*. Woodward, 1892. Type.

Imperfect fish.

Lower Devonian: Campbelltown, New Brunswick, Canada.

By exchange Mr R. F. Damon, Nov. 1891.

1892. On the Lower Devonian Fish-fauna of Campbellton, New Brunswick. *Geol. Mag.* (3) 9, p. 3.



NHMUK PV P 4057

*Acanthodes nitidus*. Woodward, 1891. Type.

Imperfectly preserved fish.

Calciferous Sandstones: Eskdale, Dumfriesshire.

Purchased, 1883.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II, p. 9.

NO IMAGE

*Acanthodes australis*. Woodward, 1906. Type.

Caudal region of fish.

Carboniferous: Mansfield, Victoria, Australia.

National Museum, Melbourne, Australia.

1906. On a Carboniferous Fish Fauna from the Mansfield District, Victoria. *Mem. Nat. Mus. Melbourne*, no. 1, p. 12, pl. V, fig. 3, pl. VII, fig. 1.

NO IMAGE

*Machaeracanthus hendriksae*. Woodward, 1937. Type.

Fragment of spine.

Lower or Middle Devonian: Gidley Well, south Cornwall.

Location unknown.

1937. Note on a New Species of *Machaeracanthus*. *Quart. J. Geol. Soc.* 93, p. 360, pl. XXI, fig. 2.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Palaeonisciformes**

NO IMAGE

NHMUK PV P 14464

*Elonichthys armatus*. Woodward, 1908. Type.

Imperfect distorted fish, counterpart of holotype.

Wianamatta Shales, Triassic Hawkesbury Series: St. Peters, Sydney, NSW.

?Geological Survey, NSW.

1908. The Fossil Fishes of the Hawkesbury Series at St. Peter's with Note by W. S. DUN. *Mem. Geol. Surv. N.S. Wales, Palaeont.* **10**, p. 11, pl. III, fig. 1.

NO IMAGE

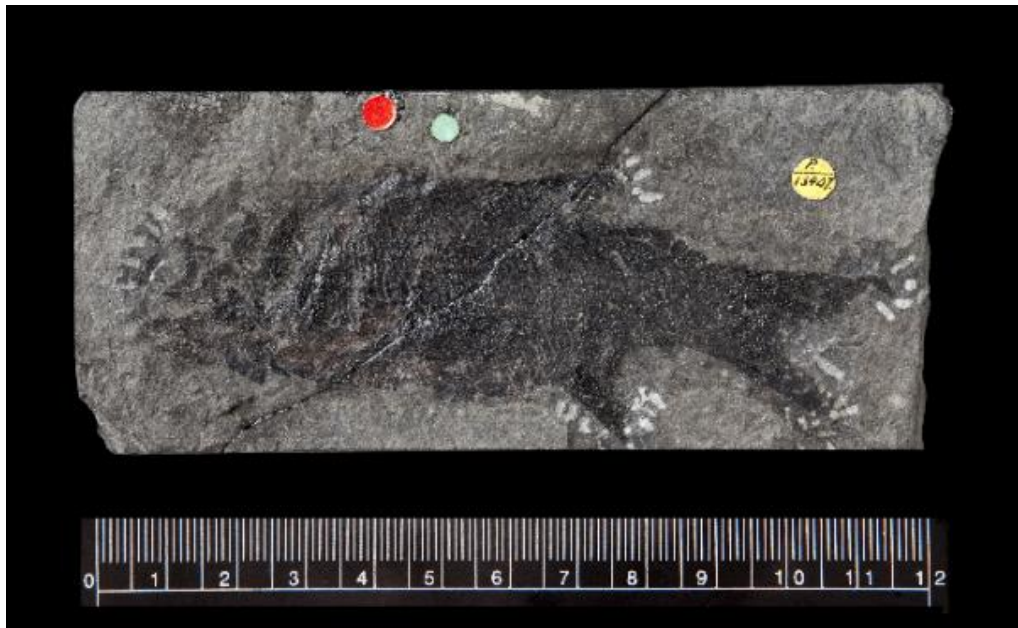
*Elonichthys semilineatus*. Woodward, 1908. Type.

Middle portion of small trunk.

Wianamatta Shales, Triassic Hawkesbury Series: St. Peters, Sydney, NSW.

?Geological Survey, NSW.

1908. The Fossil Fishes of the Hawkesbury Series at St. Peter's; with Note by W. S. DUN. *Mem. Geol. Surv. N.S. Wales, Palaeont.* **10**, p. 13, pl. IV, Figs. 1, 1a.



NHMUK PV P 13407

*Stegotrachelus finlayi*. Woodward, 1926. Holotype.

Near complete specimen.

Old Red Sandstone: Exnaboe, Shetland Isles.

?Presented by Dr. T.M. Finlay.

1926. (With E. I. WHITE.) The Fossil Fishes of the Old Red Sandstone of the Shetland Isles. *Trans. Roy. Soc. Edinb.* **54**, 567-571, pl. III, fig. 1, 1a.



LEICT G378.1889.1 (Image © Leicester Arts and Museums Service).

*Brownichthys ornatus*. Woodward, 1889. Holotype.

Portions of the head and trunk.

Hettangian, Scunthorpe Mudstone Formation, ?Barnstone Member: Barrow-on-Soar, Leicestershire.  
New Walk Museum & Art Gallery, Leicester.

1889. Preliminary Notes on some new and little-known British Jurassic Fishes. *Geol. Mag.* (3) 6, p. 455.

NO IMAGE

*Elonichthys gibbus*. Woodward, 1906. Type.

Imperfect fish lacking end of tail.

Carboniferous: Mansfield, Victoria, Australia.

National Museum, Melbourne, Australia.

1906. On a Carboniferous Fish Fauna from the Mansfield District, Victoria. *Mem. Nat. Mus. Melbourne*, no. 1, p. 22, pl. IX, fig. 4, pl. XI.

NO IMAGE

*Elonichthys sweeti*. Woodward, 1906. Type.

Imperfect fish, the greater part of the trunk in counterpart.

Carboniferous: Mansfield, Victoria, Australia.

National Museum, Melbourne, Australia.

1906. On a Carboniferous Fish Fauna from the Mansfield District, Victoria. *Mem. Nat. Mus. Melbourne*, no. 1, p. 19, pl. IX, fig. 1, pl. X, fig. 1.

NO IMAGE

*Elonichthys davidi*. Woodward, 1940. Type.

Imperfect fish wanting the pectoral fins.

Newcastle Coal Measures (Upper Permian): Tarro, Northumberland, NSW.

?New South Wales School of Mines.

1940. A Palaeoniscid Fish (*Elonichthys davidi*, sp. nov.) from the Newcastle Coal Measures, New South Wales. *Ann. Mag. Nat. Hist.* (11) 6, 462-464, pl. XI.



NHMUK PV OR 47080\_2

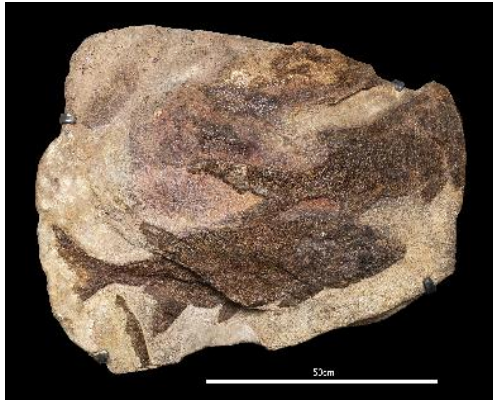
*Acrolepis (?) digitata*. Woodward, 1891. Type.

Group of scales.

Karoo Formation: Graaf Reinet District, Cape Colony.

Rubidge Collection. Presented by the Hon. W. Guybon Atherstone, M.D., 1875.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II, p. 508, pl. XV, fig. 4.



P.9840

*Acrolepis molyneuxi*. Woodward, 1903. Type.

Fish on slab.

Permo-Carboniferous: Sengwe Coalfield, Southern Rhodesia.

Presented by A.J.C. Molyneux Esq., Feb. 1903.

1903. On a new species of *Acrolepis* obtained by Mr Molyneux from the Sengwe Coalfield. *Quart. J. Geol. Soc.* **59**, 285-286a, pl. XX.

NO IMAGE

*Acrolepis arctica*. Woodward, 1912. Type.

Imperfect fragmentary fish in impression.

Lower Trias: Sassen Bay, Spitzbergen.

?Royal State Museum, Stockholm.

1912. Notes on some Fish-remains from the Lower Trias of Spitzbergen. *Bull. Geol. Inst. Univ. Upsala*, XI, p. 292, pl. XIV, fig. 2.



NRM PZ P.7790

*Ganolepis gracilis*. Woodward, 1893. Type. *Gen. nov.*

Complete fish.

Permian(?): Medwiesko, near Atjinsk, Government of Jenissei, Siberia.

Swedish Museum of Natural History, Stockholm.

1893. Palaeichthyological Notes. *Ann. Mag. Nat. Hist.* (6) 12, p. 287, pl. X, figs. 7-9.

**Group: Osteichthyes**

**Class: Actinopterygii**



NHMUK PV P 4735

*Atherstonia scutata*. Woodward, 1889. Holotype. *Gen. nov.*

Near complete specimen.

Beaufort Beds (Lower Karoo Series), Lower Triassic: Colesberg, Cape Colony, South Africa.

Presented by the Hon. W. Gaybon Atherstone, M.D., 1884.

1889. On *Atherstonia*, a new Genus of Palaeoniscid Fishes from the Karoo Formation of South Africa. *Ann. Mag. Nat. Hist.* (6) 4, 239-242, pl. XIV, fig. 1.



NHMUK PV P 8614\_2

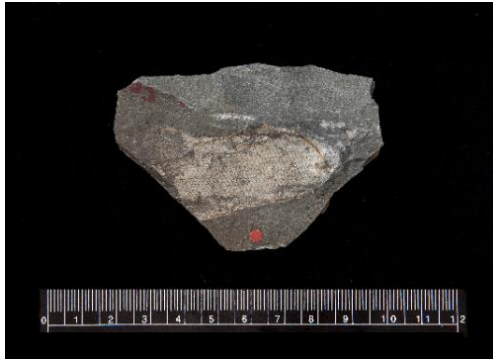
*Atherstonia minor*. Woodward, 1893. Holotype.

Middle portion of a small fish.

Lower Trias, Beaufort Beds: Klip Fontein, Cape Province, South Africa.

Presented H.G. Seeley, 1897.

1893. Further Notes on Fossil Fishes from the Karoo Formation of South Africa. *Ann. Mag. Nat. Hist.* (6) 12, p. 395, pl. XVII, fig. 2.



NHMUK PV P 8615

*Atherstonia minor*. Woodward, 1893. Paratype.

Greater part of the trunk.

Lower Trias, Beaufort Beds: Klip Fontein, Cape Province, South Africa.

Presented H.G. Seeley, 1897.

1893. Further Notes on Fossil Fishes from the Karoo Formation of South Africa. *Ann. Mag. Nat. Hist.* (6) **12**, p. 395.

NO IMAGE

*Atherstonia australis*. Woodward, 1902. Type.

Near complete specimen, left lateral aspect.

Carboniferous Hawkesbury Sandstone: Neighbourhood of Harrington, N.S.W.

Australian Museum, Sydney, Australia.

1902. On *Atherstonia australis* and *Ctenolates avus*, two new species of Fossil Fishes from New South Wales. *Rec. Geol. Surv. N.S. Wales*, 7, p. 88, pl. XXIV, figs. 1 and 1a.



NHMUK PV P 8613

*Atherstonia seeleyi*. Woodward, 1893. Holotype.

Portion of trunk with pelvic and anal fins.

Lower Trias, Beaufort Beds: Klip Fontein, Cape Province, South Africa.

Presented H.G. Seeley, 1897.

1893. Further Notes on Fossil Fishes from the Karoo Formation of South Africa. *Ann. Mag. Nat. Hist.* (6) **12**, p. 396, pl. 17, fig. 3.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Palaeonisciformes**

NO IMAGE

*Urosthene latus*. Woodward, 1931. Type .

Fish lacking the head and the anterior abdominal region.

Permian (Illawarra Coal Measures): Lithgow, NSW.

Australian Museum, Sydney, Australia.

1931. On *Urosthene*, a Fossil Fish from the Upper Coal Measures of Lithgow, New South Wales. *Ann. Mag. Nat. Hist.* (10) **8**, 365-367, pl. XIV.

NO IMAGE

*Amblypterus kashmirensis*. Woodward, 1905. Type.

Hind part of the tail, with traces of the dorsal and anal fins, besides the well-preserved caudal fin.

Lower Permian: Khunmu, Vihi Valley, near Srinagar, India.

Unknown.

1905. (With A. C. SEWARD.) Permo-Carboniferous Plants and Vertebrates from Kashmir. *Mem. Geol. Surv. India, Palaeont. Indica* (n.s.), **2**, no. 2, p. 10, pl. IX, fig. 4.

NO IMAGE

*Amblypterus symmetricus*. Woodward, 1905. Type

Trunk without the head, in counterpart.

Lower Permian: Khunmu, Vihi Valley, near Srinagar, India.

Unknown.

1905. (With A. C. SEWARD.) Permo-Carboniferous Plants and Vertebrates from Kashmir. *Mem. Geol. Surv. India, Palaeont. Indica* (n.s.), **2**, no. 2, p. 11, pl. X, fig. 1.



NHMUK PV P 3457

*Amblypterus traquairi*. Woodward, 1891. Type.

Near complete specimen, in counterpart.

Lower Permian: Lebach, Rhenish Prussia.

Enniskillen Collection.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II, p. 439, pl. XV, fig.2.



NHMUK PV P 994

*Amblypterus traquairi*. Woodward, 1891. Type.

Near complete specimen, in counterpart.

Lower Permian: Lebach, Rhenish Prussia.

Egerton Collection.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II, p. 439.

NO IMAGE

*Palaeoniscus crassus*. Woodward, 1908. Holotype.

Incomplete at each end.

Wianamatta Shales, Triassic Hawkesbury Series: St. Peters, Sydney, NSW.

?Geological Survey, NSW.

1908. The Fossil Fishes of the Hawkesbury Series at St. Peter's; with Note by W. S. DUN. *Mem. Geol. Surv. N.S. Wales, Palaeont.* **10**, p. 9, pl. II, fig. 3.

NO IMAGE

*Gyrolepis dubius*. Woodward, 1893. Type.

Large portion of the squamation in impression, a few imperfect scales and part of the dorsal fin.

Rhaetic: Southern Scania, Sweden.

Museum of Swedish Geological Survey, Sweden.

1893. Palaeichthyological Notes. *Ann. Mag. Nat. Hist.* (6) **12**, p. 285, pl. X, figs. 10-12.

NO IMAGE

*Coccolepis australis*. Woodward, 1895. Type.

Large head and abdominal region in counterpart, wanting the extremity of the snout.

Jurassic (Upper Hawkesbury-Wiannamatta Series): Talbragar, New South Wales.

Australian Museum, Sydney, Australia.

1895. The Fossil Fishes of the Talbragar Beds (Jurassic?), *Mem. Geol. Surv. N.S. Wales, Palaeont.* **9**, p. 5, pl. I, fig. 1.



NHMUK PV P 887

*Coccolepis liassicus*. Woodward, 1890. Type.

Near complete specimen.

Lower Lias: Lyme Regis, Dorsetshire.

Egerton Collection.

1890. Notes on some Ganoid Fishes from the English Lower Lias. *Ann. Mag. Nat. Hist.* (6) 5, p. 432, pl. XVI, fig. 2.



NHMUK PV P 6153

*Coccolepis liassicus*. Woodward, 1890. Paratype.

Near complete specimen.

Lower Lias: Lyme Regis, Dorsetshire.

Enniskillen Collection.

1890. Notes on some Ganoid Fishes from the English Lower Lias. *Ann. Mag. Nat. Hist.* (6) 5, p. 432, pl. XVI, fig. 3.



NHMUK PV OR 39865

*Coccolepis liassicus*. Woodward, 1890. Paratype.

Anterior trunk and caudal fin.

Lower Lias: Lyme Regis, Dorsetshire.

Purchased 1886.

1890. Notes on some Ganoid Fishes from the English Lower Lias. *Ann. Mag. Nat. Hist.* (6) 5, p. 432, pl. XVI, fig. 4, 4a.



(a) Part (BGS GSM 419)

BGS GSM 419 & BGS GSM 28002

(Images: (a) P930886 (b) P930890 British Geological Survey © NERC)

*Coccolepis andrewsi*. Woodward, 1890. Type.

Fish wanting pectoral fins.

Lower Purbeck Beds: Teffont, near Salisbury.

British Geological Survey.

1890. Woodward and Sherborn. *A Catalogue of British Fossil Vertebrata*, p. 37 (name only).

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II, p. 524.



(b) Counterpart (BGS GSM 28002)



NHMUK PV P 10756

*Ecrinesomus dixoni*. Woodward, 1910. Holotype. *Gen. nov.*

Near complete specimen.

Lower Trias, Right bank of the Mahavavy River, opp. the village of Andogozo, near the extreme north-west coast of Madagascar.

Presented George G. Dixon Esq., Nov. 1909.

1910. On some Permo-Carboniferous Fishes from Madagascar. *Ann. Mag. Nat. Hist.* (8) 5, p. 2, pl. 1, fig. 1.



NHMUK PV P 10758

*Ecrinesomus dixoni*. Woodward, 1910. Paratype. *Gen. nov.*

Head and anterior abdominal region.

Lower Trias, Right bank of the Mahavavy River, opp. the village of Andogozo, near the extreme north-west coast of Madagascar.

Presented George G. Dixon Esq., Nov. 1909.

1910. On some Permo-Carboniferous Fishes from Madagascar. *Ann. Mag. Nat. Hist.* (8) 5, p. 2, pl. 1, fig. 2.



NHMUK PV P 10759-1

*Ecrinesomus dixoni*. Woodward, 1910. Paratype. *Gen. nov.*

Fragment showing pectoral fin, in counterpart.

Lower Trias, Right bank of the Mahavavy River, opp. the village of Andogozo, near the extreme north-west coast of Madagascar.

Presented George G. Dixon Esq., Nov. 1909.

1910. On some Permo-Carboniferous Fishes from Madagascar. *Ann. Mag. Nat. Hist.* (8) 5, p. 2, pl. 1, fig. 3.



NHMUK PV P 10759-2

*Ecrinesomus dixoni*. Woodward, 1910. Paratype. *Gen. nov.*

Fragment showing pectoral fin, in counterpart.

Lower Trias, Right bank of the Mahavavy River, opp. the village of Andogozo, near the extreme north-west coast of Madagascar.

Presented George G. Dixon Esq., Nov. 1909.

1910. On some Permo-Carboniferous Fishes from Madagascar. *Ann. Mag. Nat. Hist.* (8) 5, p. 2, pl. 1, fig. 3.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Saurichthyiformes**



NHMUK PV OR 40726

*Belonorhynchus brevirostris*. Woodward, 1895. Type.

Cranium and mandible wanting the extremity of the snout.

Lower Lias: Lyme Regis, Dorsetshire.

Purchased, 1867.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 17, Pl. II, fig. 2.

NO IMAGE

*Belonorhynchus wimani*. Woodward, 1912. Syntypes.

Two imperfect skulls and jaws.

Lower Trias: Sassen Bay, Spitzbergen.

?Royal State Museum, Stockholm.

1912. Notes on some Fish-remains from the Lower Trias of Spitzbergen. *Bull. Geol. Inst. Univ. Upsala*, XI, p. 293, Pl. XIV, figs. 3 to 6.

NO IMAGE

*Belonorhynchus gracilis*. Woodward, 1890. Type.

A nearly complete head and trunk, seen from the ventral aspect, wanting all the fins except portions of the anal and caudal.

Triassic: Gosford, NSW, Australia.

Geological Survey Museum, Sydney.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p.27, Pl. VIII, fig. 5.

NO IMAGE

*Belonorhynchus gigas*. Woodward, 1890. Type.

Nearly complete fish with imperfect fins, the pectorals being absent, the anal much broken, and the dorsal destroyed.

Triassic: Gosford, NSW, Australia.

Geological Survey Museum, Sydney.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p. 23, Pl. IX, fig. 1.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Scorpaeniformes**

**Family: Anoplopomatidae**

NO IMAGE

*Myriolepis pectinata*. Woodward, 1908. Holotype.

Greater part of the trunk with traces of the head and fins.

Wianamatta Shales, Triassic Hawkesbury Series: St. Peters, Sydney, NSW.

?Geological Survey, NSW.

1908. The Fossil Fishes of the Hawkesbury Series at St. Peter's; with Note by W. S. DUN. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 10, p. 15, Pl. III, fig. 2.

NO IMAGE

*Myriolepis latus*. Woodward, 1890. Type.

Complete head and trunk wanting all fins except the anal and caudal.

Lower Triassic: Gosford, NSW, Australia.

Australian Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p. 10, Pl. III, fig. 2.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Acipenseriformes**

**Family: Polyodontidae**



NHMUK PV OR 33221

*Pholidurus disjectus*. Woodward, 1889. Type. *Gen. nov.*

Fulcral scales and caudal fin rays.

Upper Chalk: Gravesend, Kent.

Taylor Collection.

1889. On the Palaeontology of Sturgeons. *Proc. Geol. Assoc.* 11, p. 30-31.



NHMUK PV OR 33222

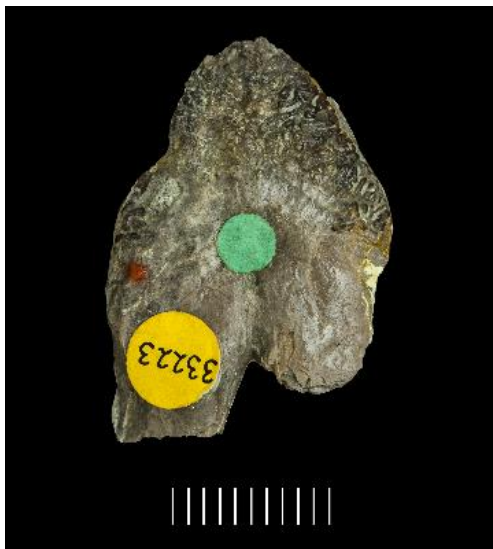
*Pholidurus disjectus*. Woodward, 1889. Type. *Gen. nov.*

Fulcral scales and caudal fin rays.

Upper Chalk: Gravesend, Kent.

Taylor Collection.

1889. On the Palaeontology of Sturgeons. *Proc. Geol. Assoc.* **11**, p. 30-31.



NHMUK PV OR 33223\_1

*Pholidurus disjectus*. Woodward, 1889. Type. *Gen. nov.*

Fulcral scale.

Upper Chalk: Gravesend, Kent.

Taylor Collection.

1889. On the Palaeontology of Sturgeons. *Proc. Geol. Assoc.* **11**, p. 30-31, pl. 1, fig. 4 (labelled 33221 in error).



NHMUK PV OR 33224

*Pholidurus disjectus*. Woodward, 1889. Type. *Gen. nov.*

Caudal fin rays.

Upper Chalk: Gravesend, Kent.

Taylor Collection.

1889. On the Palaeontology of Sturgeons. *Proc. Geol. Assoc.* **11**, p. 30-31, pl. I, fig. 5.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Peltopleuriformes**



NHMUK PV P 1099a

*Peltopleurus kneri*. Woodward, 1895. Type.

Imperfect fish.

Middle Trias: Raibl, Carinthia, Austria.

Egerton Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 481.

NO IMAGE

*Peltopleurus (?) dubius*. Woodward, 1890. Type.

Specimen wanting the pectoral fins.

Triassic: Gosford, NSW, Australia.

Geological Survey Museum, Sydney.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* **4**, p. 47, pl. VI, fig. 4.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Redfieldiiformes**

NO IMAGE

*Dictyopyge illustrans*. Woodward, 1890. Type.

Complete fish.

Lower Triassic: Gosford, NSW, Australia.

Mining Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p. 18, pl. IV, fig. 7.

NO IMAGE

*Dictyopyge robusta*. Woodward, 1890. Type.

Imperfectly preserved specimen.

Lower Triassic: Gosford, NSW, Australia.

Australian Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p. 20, pl. III, fig. 4.

NO IMAGE

*Dictyopyge symmetrica*. Woodward, 1890. Type.

Complete fish.

Lower Triassic: Gosford, NSW, Australia.

Australian Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p. 17, pl. IV, fig. 5.



QR 1507

*Dictyopyge(?) draperi*. Woodward, 1893. Type.

Fish wanting the caudal fin.

Stormberg Beds (Upper Karoo): Rouxville, Orange Free State.

National Museum, Bloemfontein, Orange Free State, South Africa.

1893. Further Notes on Fossil Fishes from the Karoo Formation of South Africa. *Ann. Mag. Nat. Hist.* (6) 12, p. 393, pl. XVII, fig. 1.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Perleidiformes**

NO IMAGE

*Pristisomus crassus*. Woodward, 1890. Type.

Specimen wanting the dorsal fin and the upper lobe of the tail.

Lower Triassic: Gosford, NSW, Australia.

Australian Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p. 36, pl. V, fig. 5.

NO IMAGE

*Pristisomus gracilis*. Woodward, 1890. Type.

Complete trunk.

Lower Triassic: Gosford, NSW, Australia.

Australian Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p. 33, pl. V, fig. 1.

NO IMAGE

*Pristisomus latus*. Woodward, 1890. Type.

Specimen wanting the caudal pedicle and fin.

Lower Triassic: Gosford, NSW, Australia.

Mining Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p. 35, pl. V, fig. 2.

NO IMAGE

*Colobodus altilepis*. Woodward, 1912. Type.

Part of the head and trunk, lacking the jaws and fins.

Lower Trias: Sassen Bay, Spitzbergen.

?Royal State Museum, Stockholm.

1912. Notes on some Fish-remains from the Lower Trias of Spitzbergen. *Bull. Geol. Inst. Univ. Upsala*, XI, p. 296, pl. XIV, figs. 7, 7a-c.

NO IMAGE

*Cleithrolepis(?) altus*. Woodward, 1890. Type.

Nearly complete fish.

Triassic: Gosford, NSW, Australia.

Mining Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p. 42, pl. VIII, fig. 4.



NHMUK PV P 5455

*Cleithrolepis extoni*. Woodward, 1888. Types.

Imperfect fishes.

Upper Karoo Formation (Stormberg Beds): Rouxville, Orange Free State.

Presented by Hugh Exton, Esq., M.D., 1888.

1888. On Two New Lepidotoid Ganoids from the early Mesozoic Deposits of Orange Free State, South Africa. *Quart J. Geol. Soc.* 44, pp. 141-143, pl. VI, figs. 6,7.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Gonoryhnchiformes**

**Family: Chanidae**



NHMUK PV OR 39868-1

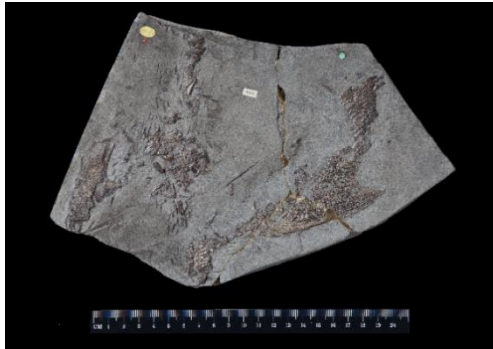
*Ptycholepis monilifer*. Woodward, 1895. Holotype.

Caudal fin.

Lower Lias: Lyme Regis, Dorsetshire.

Purchased 1866.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 322.



NHMUK PV OR 39868-2

*Ptycholepis monilifer*. Woodward, 1895. Holotype.

Dorsal fin and dorsal flank scales.

Lower Lias: Lyme Regis, Dorsetshire.

Purchased 1866.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 322, pl. X, figs. 3, 4.



NHMUK PV OR 39868-3

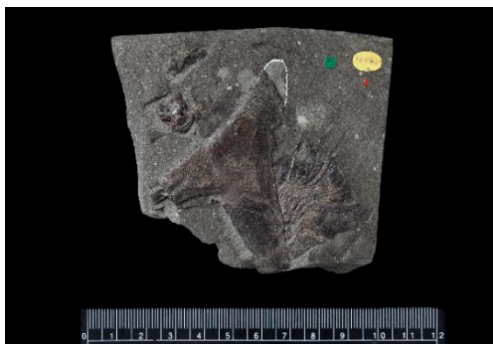
*Ptycholepis monilifer*. Woodward, 1895. Holotype.

Right mandibular ramus, outer aspect.

Lower Lias: Lyme Regis, Dorsetshire.

Purchased 1866.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 322, pl. X, fig. 2.



NHMUK PV OR 39868-4 17D.42

*Ptycholepis monilifer*. Woodward, 1895. Holotype.

Lower Lias: Lyme Regis, Dorsetshire.

Purchased 1866.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 322.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Lepisosteiformes**  
**Family: Lepisosteidae**

NO IMAGE

NHMUK PV P 12178

*Belonostomus(?) indicus*. Woodward, 1890. Type.

Skull.

Infratrappean Lameta Beds (Upper Cretaceous): Dongargaon, near Warora, India

Presented by the Geological Society of London, 1911.

1890. Description of a Fish-skull. In R. LYDEKKER. Note on certain Vertebrate Remains from the Nagpur District. *Rec. Geol. Surv. India*, **23**, p. 23.

**Group: Osteichthyes**  
**Class: Actinopterygii**

NO IMAGE

*Apateolepis australis*. Woodward, 1890. Type.

Nearly complete fish, wanting the paired fins.

Triassic: Gosford, NSW, Australia.

Australian Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* **4**, p. 13, pl. IV, fig. 1.

NO IMAGE

*Elpisopholis dunstani*. Woodward, 1908. Type.

Imperfect fish.

Wianamatta Shales, Triassic Hawkesbury Series: St. Peters, Sydney, NSW.

?Geological Survey, NSW.

1908. The Fossil Fishes of the Hawkesbury Series at St. Peter's; with Note by W. S. DUN. *Mem. Geol. Surv. N.S. Wales, Palaeont.* **10**, p. 18, pl. IV, fig. 2.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Pycnodontiformes**



P.6166a

*Gyrodus planidens*. Woodward, 1895. Holotype.

Vomer.

Kimmeridgian: Kimmeridge Clay, Weymouth.

Purchased, R. F. Damon, April 1890.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 244.



NHMUK PV P 10679

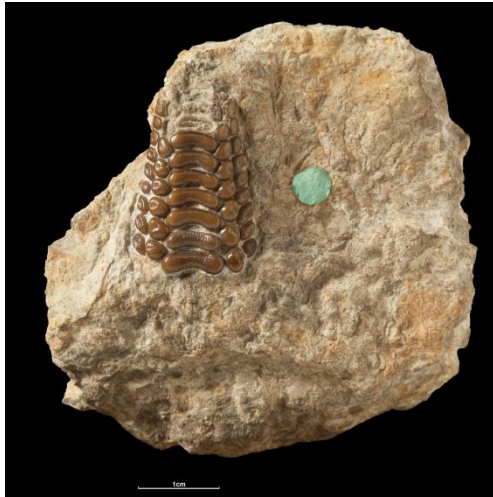
*Coelodus laevidens*. Woodward, 1918. Holotype.

Splenial bone.

Middle Purbeck Beds: Swanage, Dorset.

Presented Frederick Hovenden Esq., April 1909.

1918. *The Fossil Fishes of the English Wealden and Purbeck Formations. Part II. Palaeont. Soc. Lond.*, p. 69, pl. XV, fig. 19.



BGS GSM 28353

(Image: P930885 British Geological Survey © NERC)

*Coelodus arcuatus*. Woodward, 1918. Type.

Vomerine dentition.

Middle Purbeck Beds: Swanage, Dorset.

British Geological Survey

1918. The Fossil Fishes of the English Wealden and Purbeck Formations. Part II. *Palaeont. Soc. Lond.*, p. 70, pl. XIII, fig. 5.

NO IMAGE

*Coelodus multidentis*. Woodward, 1918. Type.

Right splenial.

Wealden: Sevenoaks, Kent.

Museum of Practical Geology, London. No. 7492.

1918. The Fossil Fishes of the English Wealden and Purbeck Formations. Part II. *Palaeont. Soc. Lond.* p. 67, pl. XV, fig. 12.



NHMUK PV OR 39215

*Coelodus multidentis*. Woodward, 1918. Paratype.

Portion of right splenial dentition.

Wealden: Battle, Sussex.

Bowerbank Collection, purchased 1865.

1918. The Fossil Fishes of the English Wealden and Purbeck Formations. Part II. *Palaeont. Soc. Lond.* p. 67, pl. XV, fig. 13.



NHMUK PV P 7236

*Coelodus cantabrigiensis*. Woodward, 1895. Holotype.

Right splenial dentition.

Cenomanian (Cambridge Greensand): Cambridge.

Jesson Collection (obtained by purchase 1894).

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 208, pl. VIII, fig. 2.



NHMUK PV OR 43090

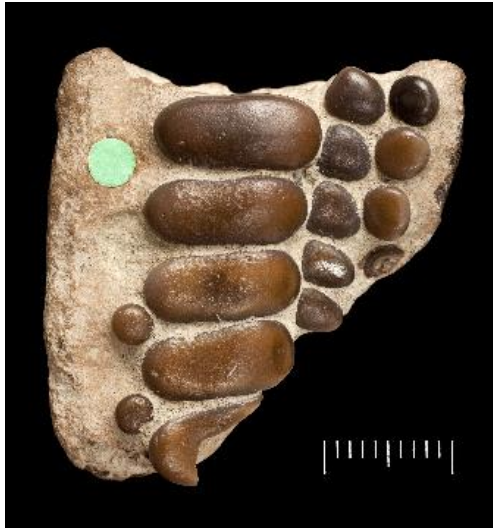
*Coelodus fimbriatus*. Woodward, 1893. Holotype.

Imperfect right splenial dentition.

Lower Chalk (zone of *Holaster subglobus*): Halling, Kent.

Wetherell Collection (purchased 1871).

1893. Some Cretaceous Pycnodont Fishes. *Geol. Mag.* (3) 10, p. 491, pl. XVII, fig. 6.



NHMUK PV OR 36157

*Coelodus inaequidens*. Woodward, 1893. Holotype.

Left splenial, with dentition.

Cenomanian (Cambridge Greensand): Cambridge.

Purchased, 1861.

1893. Some Cretaceous Pycnodont Fishes. *Geol. Mag.* (3) 10, p. 491, pl. XVII, fig. 5.



NHMUK PV P 12511

*Eomesodon barnesi*. Woodward, 1906. Type.

Nearly complete fish.

Portland Stone: Isle of Portland.

Presented by the Family of the late F. J. Barnes, Esq., 1920.

1906. On a Pycnodont Fish of the Genus *Mesodon* from the Portland Stone, *Proc. Dorset Nat. Hist. and Antiquarian Field Club*, vol. xxvii (1906), p. 183, pl. B, figs. 1-4.



NHMUK PV P 10583

*Eomesodon depressus*. Woodward, 1918. Holotype.

Fragment of head and trunk.

Middle Purbeck Beds: Swanage, Dorset.

Presented Frederick Hovenden, May 1908.

1918. The Fossil Fishes of the English Wealden and Purbeck Formations. Part II. *Palaeont. Soc. Lond.*, p. 57, pl. XIII, fig. 2.



NHMUK PV P 6165

*Mesodon damoni*. Woodward, 1890. Holotype.

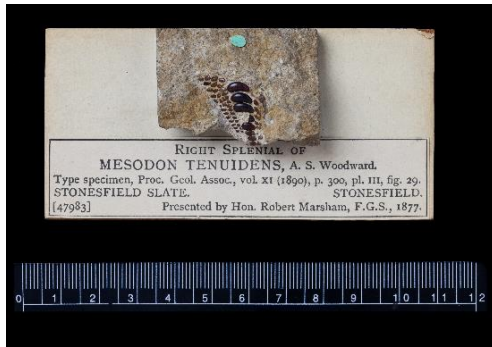
Left splenial bone.

Portlandian: Isle of Portland, Dorset.

Purchased R. F. Damon, April 1890.

1890. On a new species of Pycnodont Fish (*Mesodon Damonii*) from the Portland Oolite. *Geol. Mag.* (3) 7, p. 158-159.

(Figured Robert Damon, A Supplement to the Handbook to the Geology of Weymouth and the Isle of Portland, pl. VIII, fig. 9 as *Pycnodus bucklandi*).



NHMUK PV OR 47983

*Mesodon tenuidens*. Woodward, 1890. Type.

Right splenial.

Stonesfield Slate: Stonesfield, near Oxford.

Presented by Hon. Robert Marsham, F.G.S., 1877.

1890. A Synopsis of the Fossil Fishes of the English Lower Oolites. *Proc. Geol. Assoc.* XI, p. 300, pl. iii, fig. 29.



NHMUK PV OR 41387

*Mesodon daviesi*. Woodward, 1890. Holotype.

Nearly complete fish in counterpart.

Purbeck Beds, Swanage, Dorset.

Purchased 1869.

1890. On some new Fishes from the English Wealden and Purbeck Beds, referable to the Genera *Oligopleurus*, *Strobilodus* and *Mesodon*. *Proc. Zool. Soc.*, p. 351, pl. XXVIII, fig. 5.



NHMUK PV P 6381

*Mesodon daviesi*. Woodward, 1895. Holotype  
Incomplete counterpart of NHMUK PV OR 41387.

Purbeck Beds, Swanage, Dorset.

Beckles Collection (purchased 1891).

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 201.



NHMUK PV P 9845-1 (Woodward, 1895, fig. 2, 1902,  
fig. 3)

NHMUK PV P 9845

*Mesodon macropterus* var. *parvus*. Woodward, 1895. Holotype.

*Mesodon parvus*. Woodward 1902.

Nearly complete fish, wanting the anterior portion of the head, in counterpart.

Middle Purbeck: Lime Kiln Quarry, Teffont, Wiltshire.

Presented by Rev. W.R. Andrews, March 1903.

1895. A Contribution to Knowledge of the Fossil Fish Fauna of the English Purbeck Beds. *Geol. Mag.* (4) 2, p. 147, pl. VII,  
fig. 2.

1902. The Fossil Fishes of the English Chalk. Part I. *Palaeont. Soc. Lond.*, p. 52, pl. XII, fig. 3.



NHMUK PV P 9845-2



NHMUK PV P 523

*Mesodon biserialis*. Woodward, 1890. Holotype.

Left splenial dentition.

Bathonian (Stonesfield Slate): Stonesfield, Oxfordshire.

Egerton Collection.

1890. A Synopsis of the Fossil Fishes of the English Lower Oolites. *Proc. Geol. Assoc.*, **11**, p. 300, pl. III, fig. 28.



NHMUK PV P 524

*Mesodon (?) discoides*. Woodward, 1890. Holotype.

Imperfect upper dentition.

Great Oolite: Little Gibraltar, near Oxford.

Egerton Collection.

1890. A Synopsis of the Fossil Fishes of the English Lower Oolites. *Proc. Geol. Assoc.* **11**, p. 300, pl. III, fig. 32.

**Group: Osteichthyes**  
**Class: Actinopterygii**



(a) SM J 5822



(b) OUM J 12063

SM J 5822

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=20006101>

OUM J 12063 Image © Oxford University Museum of Natural History

*Scaphodus heteromorphus*. Woodward, 1890. Syntype.

(a) portion of right lower dentition.

(b) three unabraded teeth of two inner series of lower dentition.

Stonesfield Slate: Stonesfield, Oxfordshire.

(a) Sedgwick Museum of Earth Sciences.

(b) Oxford University Museum of Natural History.

1890. A Synopsis of the Fossil Fishes of the English Lower Oolites. *Proc. Geol. Assoc.* **11**, p. 300, pl. III, figs. 33, 34.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Pycnodontiformes**

NO IMAGE

NHMUK PV P 6834\_1

*Mesturus leedsii*. Woodward, 1895. Type.

Greater portion of head and squamation of abdominal region, with remains of paired fins.

Oxford Clay: Near Peterborough.

Leeds Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p 221.

NO IMAGE

*Pycnodus lametae*. Woodward, 1908. Type.

Skull.

Danian Cretaceous/Upper Eocene: Lameta Beds, Dongargaon, Central Provinces, India.

?Collection of Rev'd Stephen Hislop.

1908. On some Fish-remains from the Lameta Beds at Dongargaon, Central Provinces. *Mem. Geol. Surv. India, Palaeont. Indica* (n.s.), **3**, no. 3, p. 1, pl. I, fig. 1.



SM B 8978

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=20002483>

*Anomoeodus carteri*. Woodward, 1895. Holotype.

Right splenial.

Cretaceous (Cambridge Greensand): Cambridgeshire.

Albian Age (Cretaceous Period) (99.6 – 112 Ma B.P.)

Sedgwick Museum of Earth Sciences, James Carter Collection.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 209, pl. VIII, fig. 4.



SM B 8979

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=20002484>

*Anomoeodus carteri*. Woodward, 1895. Paratype.

Splenial.

Cretaceous (Cambridge Greensand): Cambridgeshire.

Albian Age (Cretaceous Period) (99.6 – 112 Ma B.P.)

Sedgwick Museum of Earth Sciences, James Carter Collection.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 209.



YORYM YM 436

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=25000252>

*Anomoeodus carteri*. Woodward, 1895. Paratype.

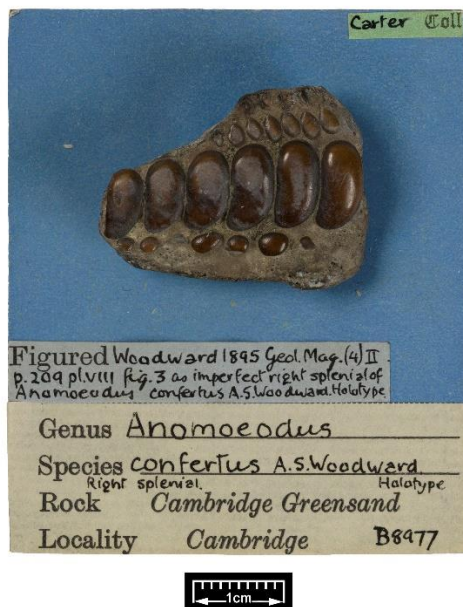
Splenial.

Cretaceous (Cambridge Greensand): Cambridgeshire.

Cretaceous Period (Cretaceous Period) (65.5 – 145.5 Ma B.P.)

Yorkshire Museum, Reed Collection.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 209, pl. VIII, fig. 5.



SM B 8977

Image © Sedgwick Museum of Earth Sciences

*Anomoeodus confertus*. Woodward, 1895. Holotype.

Imperfect right splenial.

Cretaceous (Cambridge Greensand): Cambridgeshire.

Sedgwick Museum of Earth Sciences, James Carter Collection.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 209, pl. VIII, fig. 3.



SM B 8970

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=20002480>

*Anomoedus superbus*. Woodward, 1893. Holotype.

Left splenial dentition.

Cenomanian: Cambridgeshire.

Albian Age (Cretaceous Period) (99.6 – 112 Ma B.P.)

Sedgwick Museum of Earth Sciences.

1893. Some Cretaceous Pycnodont Fishes. *Geol. Mag.* (3) 10, p. 489, pl. XVI, figs. 5 and 5a.



SM B 39751-SM B 39755

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=20003814>

*Anomoedus superbus*. Woodward, 1893. Paratypes.

Splenial dentitions.

Cambridge Greensand.

Albian Age (Cretaceous Period) (99.6 – 112 Ma B.P.)

Sedgwick Museum of Earth Sciences.

1893. Some Cretaceous Pycnodont Fishes. *Geol. Mag.* (3) 10, p. 489, pl. XVI, figs. 5 and 5a.



BMB 007270

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=25000962>

*Anomoeodus willetti*. Woodward, 1893. Holotype.

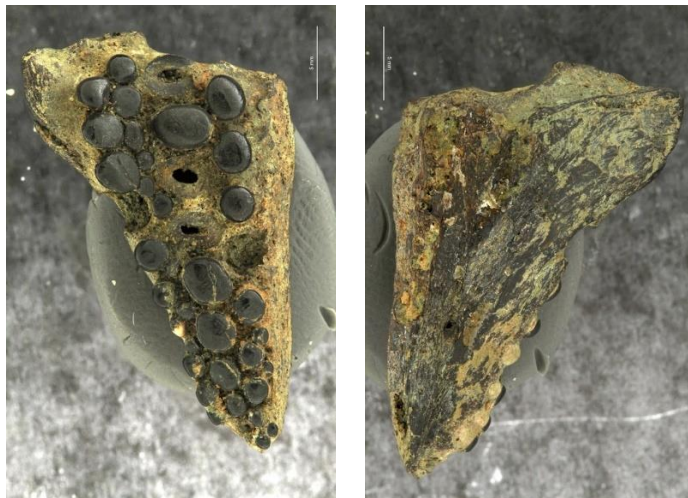
Imperfect skull with dentition.

Lower Chalk: Glynde, Sussex.

Late Cretaceous Epoch (Cretaceous Period) (65.5 – 99.6 Ma B.P.)

Booth Museum of Natural History, Willett Collection.

1893. Some Cretaceous Pycnodont Fishes. *Geol. Mag.* (3) 10, p. 489, pl. XVII, figs, 1, a-c.



(c)

IRSNB P 01196

*Athrodon tenuis*. Woodward, 1893. Holotype.

Right splenial bone.

Santonian, Upper Cretaceous: Glauconie de Lonzée Lonzée, near Gembloux, Namur Province, Belgium.

Institut royal des Sciences naturelles de Belgique.

1893. Some Cretaceous Pycnodont Fishes. *Geol. Mag.* (3) 10, p. 435, pl. XVI, fig. 2, 2a, 2b.



CM B 8971

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=20002481>

*Athrodon crassus*. Woodward, 1893. Holotype.

Right splenial bone with abraded dentition.

Cambridge Greensand: Cambridge.

Sedgwick Museum of Earth Sciences.

Albian Age (Cretaceous Period) (99.6 – 112 Ma B.P.)

1893. Some Cretaceous Pycnodont Fishes. *Geol. Mag.* (3) 10, p. 435, pl. XVI, figs. 3, 3a, 3b.



NHMUK PV OR 4031418A.37

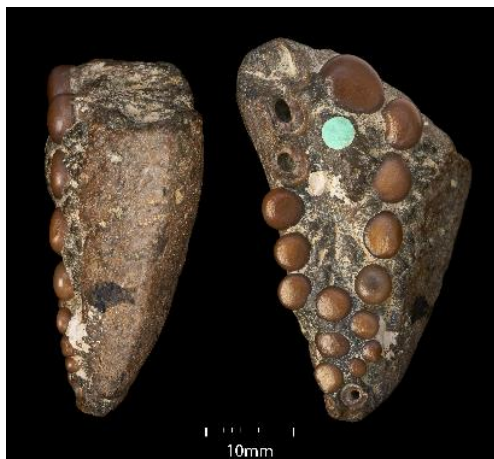
*Arthrodon intermedius*. Woodward, 1893. Holotype.

Left splenial dentition.

Purbeckian: Aylesbury, Buckinghamshire.

Purchased, 1867.

1893. Some Cretaceous Pycnodont Fishes. *Geol. Mag.* (3) 10, p. 434, pl. XVI, fig. 1.



NHMUK PV P 7238

*Athrodon jessoni*. Woodward, 1895. Holotype.

Right splenial.

Cenomanian: Cambridge.

Jesson Collection.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 208, pl. VIII, figs. 1, 1a.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Semionotiformes**

NO IMAGE

*Aetheolepis mirabilis*. Woodward, 1895. Type.

Nearly complete fish, partly preserved in counterpart.

Jurassic (Upper Hawkesbury-Wiannamatta Series): Talbragar, New South Wales.

Australian Museum, Sydney, Australia.

1895. The Fossil Fishes of the Talbragar Beds (Jurassic?), *Mem. Geol. Surv. N.S. Wales, Palaeont.* 9, p. 12, pl. IV, fig. 1.

NO IMAGE

*Semionotus australis*. Woodward, 1890. Type.

A single imperfect specimen, wanting the head and the anterior portion of the trunk.

Lower Triassic: Gosford, NSW, Australia.

Australian Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* 4, p. 31, pl. VI, fig. 2.



NHMUK PV P 4089

*Semionotus capensis*. Woodward, 1888. Syntypes.

Portions of four imperfect fishes on a sandstone slab.

Upper Karoo: Orange Free State, S. Africa.

Presented by the Orange Free State National Museum, through Hugh Exton, Esq., M.D., 1883.

1888. On Two New Lepidotoid Ganoids from the early Mesozoic Deposits of Orange Free State, South Africa. *Quart J. Geol. Soc.* **44**, p. 138, pl. VI, figs. 1-5.

NO IMAGE

*Semionotus formosus*. Woodward, 1908. Type.

Fish lacking the pectoral fins and the greater part of the caudal fin.

Upper Triassic (Wianamatta Shales-Hawkesbury Series): Brickpits at St. Peter's and McDonaldtown, near Sydney, NSW.

Australian Museum, Sydney, Australia.

1908. The Fossil Fishes of the Hawkesbury Series at St. Peter's; with Note by W. S. DUN. *Mem. Geol. Surv. N.S. Wales, Palaeont.* **10**, p. 23, pl. IV, fig. 8.

NO IMAGE

*Semionotus tenuis*. Woodward, 1890. Type.

Imperfectly preserved specimen.

Lower Triassic: Gosford, NSW, Australia.

Mining Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.* **4**, p. 31, pl. VI, fig. 3.

NO IMAGE

*Semionotus joassi*. Woodward, 1887. Type.

Nearly complete fish.

Lower Oolite: Brora, Sutherlandshire.

Collection of Rev'd. J. M. Joass.

1887. On a new Species of *Semionotus*, from the Lower Oolite of Brora, Sutherlandshire. *Ann. Mag. Nat. Hist.* (5) **20**, 175-179, pl. VIII.



(a) BGS GSM 113113a



(b) BGS GSM 113113b



(c) BGS GSM 113113c

BGS GSM 113113a, b, c

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=579664>

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=579665>

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=579666>

*Heterostrophus phillipsi*. Woodward, 1928. Holotype.

Broken pieces comprising the greater part of the fish.

Oxford Clay: King's Dyke, Peterborough.

Oxfordian Age (Jurassic Period) – Callovian Age (Jurassic Period) (155.6 – 164.7 Ma B.P.)

British Geological Survey (from Peterborough City Museum, 1969).

1928. A New Ganoid Fish (*Heterostrophus phillipsi*, sp. nov.) related to *Dapedius* from the Oxford Clay of Peterborough, *Precis of the Fifty-sixth Annual Report for the Year 1927 of the Peterborough Natural History, Scientific and Archaeological Society*, 59-60, 5 plates.



NHMUK PV P 6837-1\_1

*Lepidotus leedsii*. Woodward, 1895. Part of type.

Scales.

Oxford Clay: Peterborough.

Leeds Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 100.



NHMUK PV P 6837-1\_2

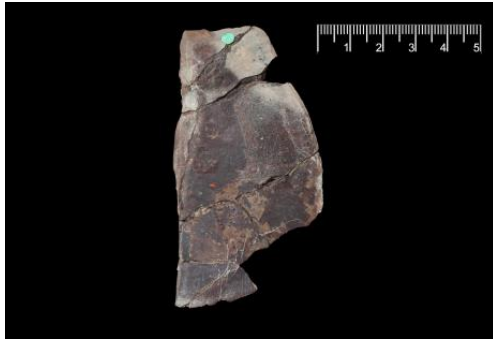
*Lepidotus leedsii*. Woodward, 1895. Part of type.

Scales.

Oxford Clay: Peterborough.

Leeds Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 100.



NHMUK PV P 6837-2\_1

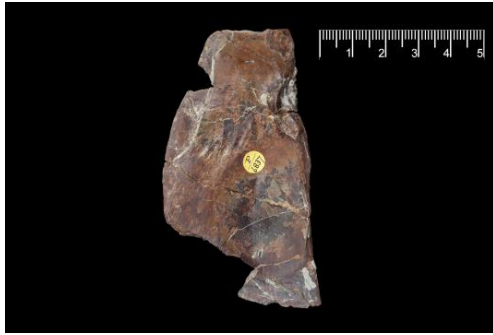
*Lepidotus leedsii*. Woodward, 1895. Part of type.

Left operculum, outer aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 100, text fig. 20.



NHMUK PV P 6837-2\_2

*Lepidotus leedsii*. Woodward, 1895. Part of type.

Left operculum, inner aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 100, text fig. 20.



NHMUK PV P 6837-3\_1

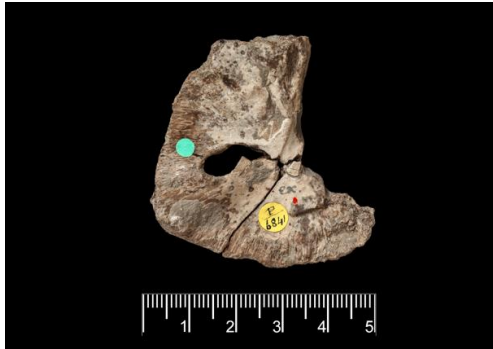
*Lepidotus leedsii*. Woodward, 1895. Part of type.

Imperfect right mandibular ramus, outer aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 100, text fig. 20a.



NHMUK PV P 6841-1\_1

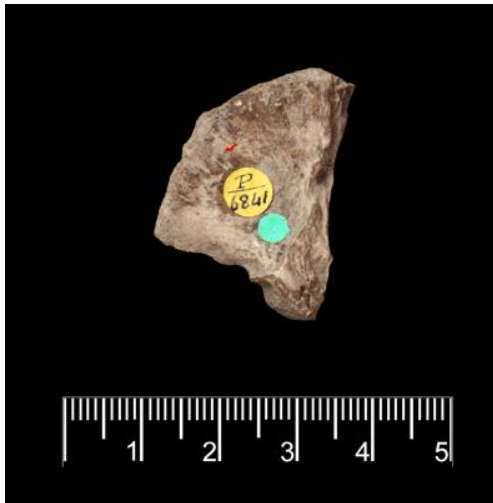
*Lepidotus latifrons*. Woodward, 1893. Parts of type.

Exoccipital.

Oxford Clay: Peterborough.

Leeds Collection.

1893. On the Cranial Osteology of the Mesozoic Ganoid Fishes, *Lepidotus* and *Dapedius*. *Proc. Zool. Soc.*, p. 560, text fig. 1.



NHMUK PV P 6841-3\_1

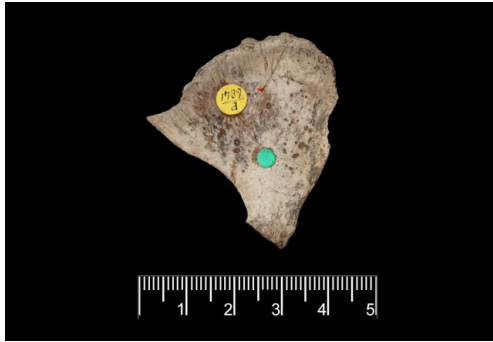
*Lepidotus latifrons*. Woodward, 1893. Parts of type.

Right quadrate, inner aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1893. On the Cranial Osteology of the Mesozoic Ganoid Fishes, *Lepidotus* and *Dapedius*. *Proc. Zool. Soc.*, p. 560, text fig. 4.



NHMUK PV P 6841-4\_1

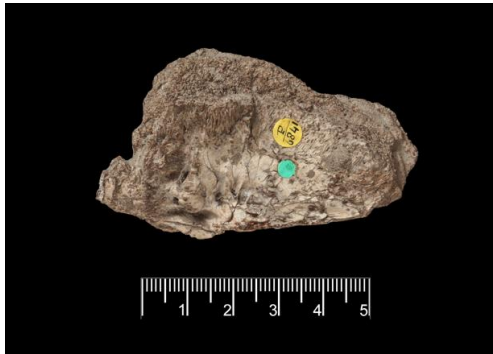
*Lepidotus latifrons*. Woodward, 1893. Parts of type.

Left quadrate, outer aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1893. On the Cranial Osteology of the Mesozoic Ganoid Fishes, *Lepidotus* and *Dapedius*. *Proc. Zool. Soc.*, p. 560, text fig. 5.



NHMUK PV P 6841-5\_1

*Lepidotus latifrons*. Woodward, 1893. Parts of type.

Basioccipital, lateral aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1893. On the Cranial Osteology of the Mesozoic Ganoid Fishes, *Lepidotus* and *Dapedius*. *Proc. Zool. Soc.*, 559-565, pl. XLIX, fig. 1a.



NHMUK PV P 6841-5\_2

*Lepidotus latifrons*. Woodward, 1893. Parts of type.

Basioccipital, posterior aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1893. On the Cranial Osteology of the Mesozoic Ganoid Fishes, *Lepidotus* and *Dapedius*. *Proc. Zool. Soc.*, p. 560, pl. XLIX, fig. 1b.



NHMUK PV P 6841-6\_1

*Lepidotus latifrons*. Woodward, 1893. Parts of type.

Ceratohyal.

Oxford Clay: Peterborough.

Leeds Collection.

1893. On the Cranial Osteology of the Mesozoic Ganoid Fishes, *Lepidotus* and *Dapedius*. *Proc. Zool. Soc.*, p. 560, pl. XLIX, fig. 1e.



NHMUK PV P 5534a\_1

*Lepidotus mawsoni*. Woodward, 1888. Syntype.

Detached scale, outer surface.

Ilhas Group, Marfim Formation (?late Hauterivian), Recôncavo Basin, Montserrat, municipality of Salvador, state of Bahia, Brazil.

Presented by J. Mawson, Esq.

1888. Notes on some Vertebrate Fossils from the Province of Bahia, Brazil, collected by Joseph Mawson, Esq., F.G.S. *Ann. Mag. Nat. Hist.* (6) 2, p. 135.



NHMUK PV P 5534a\_2

*Lepidotus mawsoni*. Woodward, 1888. Syntype.

Detached scale, inner surface.

Ilhas Group, Marfim Formation (?late Hauterivian), Recôncavo Basin, Montserrat, municipality of Salvador, state of Bahia, Brazil.

Presented by J. Mawson, Esq.

1888. Notes on some Vertebrate Fossils from the Province of Bahia, Brazil, collected by Joseph Mawson, Esq., F.G.S. *Ann. Mag. Nat. Hist.* (6) 2, p. 135.



NHMUK PV P 10601

*Lepidotus souzai*. Woodward, 1908. Holotype.

Opercular apparatus, anterior scales etc., right side.

Ilhas Group, (?late Hauterivian), Almada Basin, Lagoa do Itaipée, municipality of Ilhéus, state of Bahia, Brazil.

Presented by Dr. Ennes de Souza, Dec. 1907.

1908. On some Fossil Fishes discovered by Professor Ennes de Souza in the Cretaceous Formation at Ilhéos, State of Bahia (Brazil). *Quart. J. Geol. Soc.* **64**, p. 359, pl. XLIII, fig. 1.



NHMUK PV P 10566

*Lepidotus souzai*. Woodward, 1908. Type.

Crushed and partially-scattered remains of a complete fish.

Ilhas Group, (?late Hauterivian), Almada Basin, Lagoa do Itaipée, municipality of Ilhéus, state of Bahia, Brazil.

Presented by Dr. Ennes de Souza, Dec. 1907.

1908. On some Fossil Fishes discovered by Professor Ennes de Souza in the Cretaceous Formation at Ilhéos, State of Bahia (Brazil). *Quart. J. Geol. Soc.* **64**, p. 359.



NHMUK PV P 21-1\_1

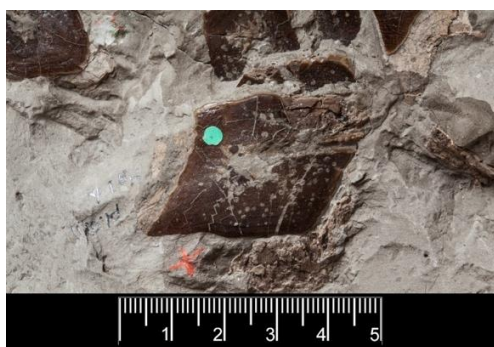
*Lepidotus(?) pustulatus*. Woodward, 1895. Holotype.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Gardner Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p 122, pl. VIII, fig. 1a.



NHMUK PV P 6201a-1\_4

*Lepidotus(?) pustulatus*. Woodward, 1895. Holotype.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Purchased J. Griffiths, 1890.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p 122, pl. VIII, fig. 1b.



NHMUK PV P 6201-3\_1

*Lepidotus(?) pustulatus*. Woodward, 1895. Holotype.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Purchased F.H. Butler, May 1890.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p 122, pl. VIII, fig. 1c.



NHMUK PV P 6201a-1\_5

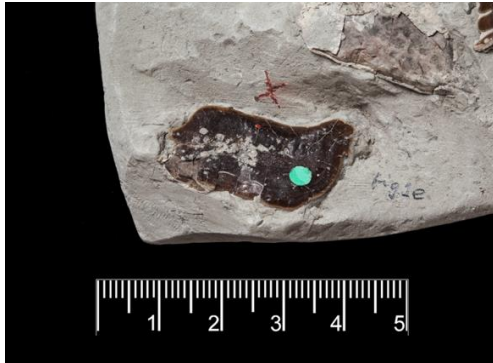
*Lepidotus(?) pustulatus*. Woodward, 1895. Type.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Purchased J. Griffiths, 1890.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p 122, pl. VIII, fig. 1d.



NHMUK PV P 6201a-3\_2

*Lepidotus(?) pustulatus*. Woodward, 1895. Holotype.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Purchased J. Griffiths, 1890.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p 122, pl. VIII, fig. 1e.



NHMUK PV P 6201-2\_1

*Lepidotus(?) pustulatus*. Woodward, 1895. Holotype.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Purchased F.H. Butler, May 1890.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p 122, pl. VIII, fig. 1f.



NHMUK PV P 6201a-2\_1

*Lepidotus(?) pustulatus*. Woodward, 1895. Holotype.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Purchased J. Griffiths, 1890.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p 122, pl. VIII, fig. 1g.



NHMUK PV P 6201a-3\_3

*Lepidotus(?) pustulatus*. Woodward, 1895. Holotype.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Purchased J. Griffiths, 1890.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p 122, pl. VIII, fig. 1h.



NHMUK PV P 6201a-1\_2

*Lepidotus(?) pustulatus*. Woodward, 1909. Holotype.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Purchased J. Griffiths, 1890.

1909. *The Fossil Fishes of the English Chalk. Part V. Palaeont. Soc. Lond.* p. 161, pl. XXXV, fig. 1.



NHMUK PV P 6201-1\_3

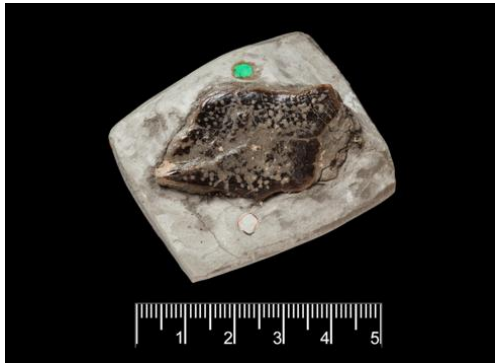
*Lepidotus(?) pustulatus*. Woodward, 1909. Holotype.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Purchased F.H. Butler, May 1890.

1909. The Fossil Fishes of the English Chalk. Part V. *Palaeont. Soc. Lond.* p. 161, pl. XXXV, fig. 3.



NHMUK PV P 6201c

*Lepidotus(?) pustulatus*. Woodward, 1909. Holotype.

Associated scales.

Grey Chalk (zone of *Schloenbachia varians*): Folkestone, Kent.

Presented by F.G. Hilton Price, 1899.

1909. The Fossil Fishes of the English Chalk. Part V. *Palaeont. Soc. Lond.* p. 161, pl. XXXV, fig. 4.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Macrosemiiformes**



NHMUK PV P 6303

*Macrosemius andrewsi*. Woodward, 1895. Holotype.

Nearly complete fish in counterpart.

Middle Purbeck: Teffont, Wiltshire.

Presented by Rev. W.R. Andrews, 1890.

1895. A Contribution to Knowledge of the Fossil Fish Fauna of the English Purbeck Beds. *Geol. Mag.* (4) 2, p. 148, pl. VII, fig. 3.



NHMUK PV P 6303a

*Macrosemius andrewsi*. Woodward, 1895. Holotype.

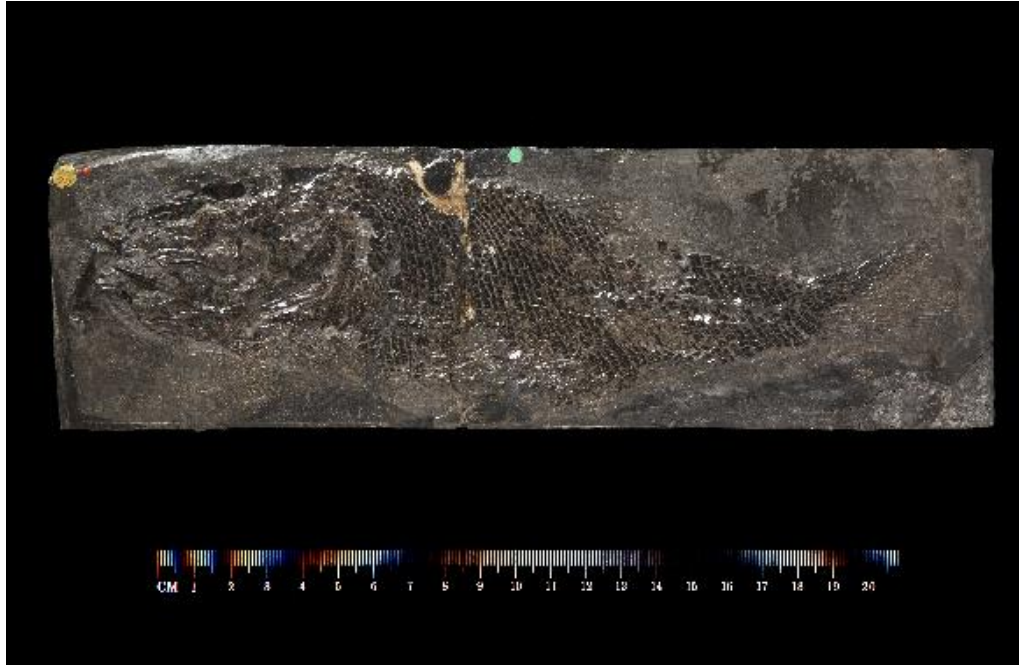
Nearly complete fish in counterpart.

Middle Purbeck: Teffont, Wiltshire.

Presented by Rev. W.R. Andrews, 1890.

1895. A Contribution to Knowledge of the Fossil Fish Fauna of the English Purbeck Beds. *Geol. Mag.* (4) 2, p.148.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Amiiformes**  
**Family: Caturidae**



NHMUK PV P 2029

*Eugnathus altus*. Woodward, 1895. Holotype.

Imperfect fish.

Lower Lias: Lyme Regis, Dorsetshire.

Egerton Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 299, pl. VI, fig. 2.



NHMUK PV P 8388-1\_1

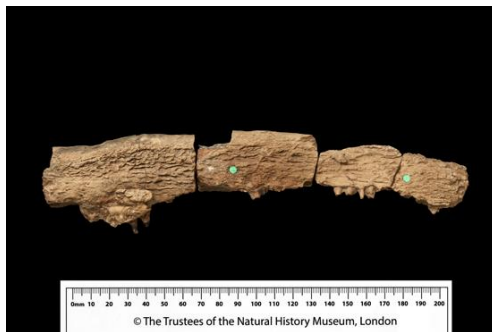
*Osteorachis leedsii*. Woodward, 1897. Holotype.

Hyomandibular, inner aspect.

Oxford Clay, Peterborough.

Leeds Collection.

1897. A Contribution to the Osteology of the Mesozoic Amioid Fishes *Caturus* and *Osteorachis*. *Geol. Mag.* (6) **19**, p. 379, pl. XI, fig. 1.



NHMUK PV P 8388-2\_1

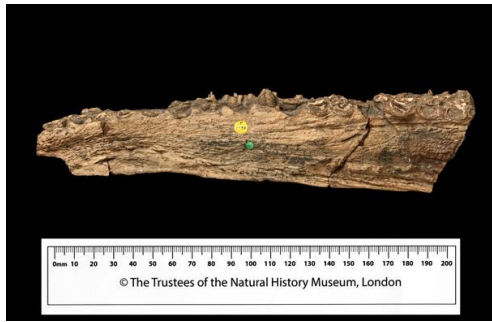
*Osteorachis leedsii*. Woodward, 1897. Holotype.

Right maxilla, outer aspect.

Oxford Clay, Peterborough.

Leeds Collection.

1897. A Contribution to the Osteology of the Mesozoic Amioid Fishes *Caturus* and *Osteorachis*. *Geol. Mag.* (6) **19**, p. 379, pl. XI, fig. 2.



NHMUK PV P 8388-3\_1

*Osteorachis leedsii*. Woodward, 1897. Holotype.

Portion of left mandibular ramus, outer aspect.

Oxford Clay, Peterborough.

Leeds Collection.

1897. A Contribution to the Osteology of the Mesozoic Amioïd Fishes *Caturus* and *Osteorachis*. *Geol. Mag.* (6) **19**, p. 379, pl. XI, fig. 3.



NHMUK PV P 8388-3\_2

*Osteorachis leedsii*. Woodward, 1897. Holotype.

Portion of left mandibular ramus, oral aspect.

Oxford Clay, Peterborough.

Leeds Collection.

1897. A Contribution to the Osteology of the Mesozoic Amioïd Fishes *Caturus* and *Osteorachis*. *Geol. Mag.* (6) **19**, p. 379, pl. XI, fig. 3a.



NHMUK PV P 8388-4\_1

*Osteorachis leedsii*. Woodward, 1897. Holotype.

Pleurocentrum and hypocentrum.

Oxford Clay, Peterborough.

Leeds Collection.

1897. A Contribution to the Osteology of the Mesozoic Amioïd Fishes *Caturus* and *Osteorachis*. *Geol. Mag.* (6) **19**, p. 379, pl. XI, figs. 4,5.



NHMUK PV P 8388-4\_2

*Osteorachis leedsii*. Woodward, 1897. Holotype.

Hypocentrum, inferior aspect.

Oxford Clay, Peterborough.

Leeds Collection.

1897. A Contribution to the Osteology of the Mesozoic Amioid Fishes *Caturus* and *Osteorachis*. *Geol. Mag.* (6) **19**, p. 379, pl. XI, fig. 5a.



NHMUK PV P 8388-4\_4

*Osteorachis leedsii*. Woodward, 1897. Holotype.

Pleurocentrum, superior aspect.

Oxford Clay, Peterborough.

Leeds Collection.

1897. A Contribution to the Osteology of the Mesozoic Amioid Fishes *Caturus* and *Osteorachis*. *Geol. Mag.* (6) **19**, p. 379, pl. XI, fig. 4a.



NHMUK PV P 8388-4\_5

*Osteorachis leedsii*. Woodward, 1897. Holotype.

Pleurocentrum and hypocentrum, lateral aspect.

Oxford Clay, Peterborough.

Leeds Collection.

1897. A Contribution to the Osteology of the Mesozoic Amioid Fishes *Caturus* and *Osteorachis*. *Geol. Mag.* (6) **19**, p. 379, pl. XI, figs. 4b, 5b.



NHMUK PV P 8388-5\_1

*Osteorachis leedsii*. Woodward, 1897. Holotype.

Right half of neural arch, anterior aspect.

Oxford Clay, Peterborough.

Leeds Collection.

1897. A Contribution to the Osteology of the Mesozoic Amioid Fishes *Caturus* and *Osteorachis*. *Geol. Mag.* (6) **19**, p. 379, pl. XI, fig. 6.



NHMUK PV P 8388-5\_2

*Osteorachis leedsii*. Woodward, 1897. Holotype.

Right half of neural arch, externo-lateral aspect.

Oxford Clay, Peterborough.

Leeds Collection.

1897. A Contribution to the Osteology of the Mesozoic Amioid Fishes *Caturus* and *Osteorachis*. *Geol. Mag.* (6) **19**, p. 379, pl. XI, fig. 6a.



NHMUK PV P 6035

*Caturus cliftoni*. Woodward, 1895. Type.

Imperfect right maxilla, outer aspect.

Portland Stone: Isle of Portland.

Presented by George Clifton Esq., 1890.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 346, pl. VII, fig. 4.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Amiiformes**  
**Family: Caturidae**



NHMUK PV OR 46911

*Strobilodus purbeckensis*. Woodward, 1890. Holotype.

Imperfect head.

Purbeckian: Swanage, Dorset.

Purchased, Mr Charlesworth, 1875.

1890. On some new Fishes from the English Wealden and Purbeck Beds, referable to the Genera *Oligopleurus*, *Strobilodus* and *Mesodon*. *Proc. Zool. Soc.*, p. 350, pl. XXIX, fig. 4.



NHMUK PV OR 40657

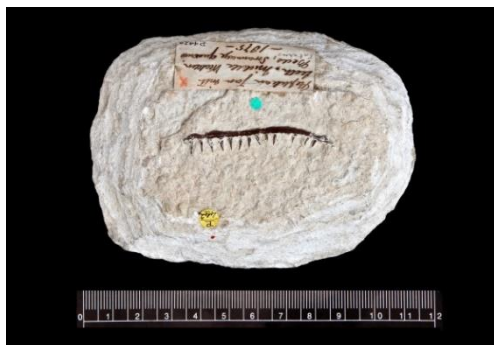
*Caturus tenuidens*. Woodward, 1895. Syntype.

Right dentary.

Purbeck: Swanage, Dorset.

Purchased B.M. Wright, Sept. 1867.

1895. A Contribution to Knowledge of the Fossil Fish Fauna of the English Purbeck Beds. *Geol. Mag.* (4) 2, p. 151, pl. VII, fig. 7.



NHMUK PV P 442a

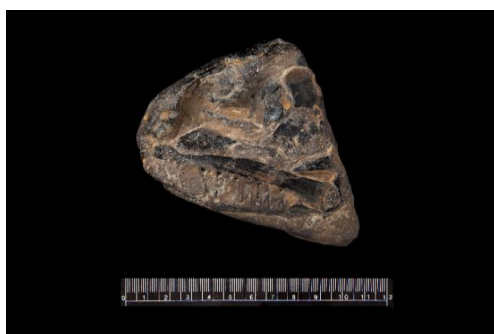
*Caturus tenuidens*. Woodward, 1895. Syntype.

Left maxilla, outer aspect.

Middle Purbeck: Swanage, Dorset.

Purchased 1882.

1895. A Contribution to Knowledge of the Fossil Fish Fauna of the English Purbeck Beds. *Geol. Mag.* (4) 2, p. 151, pl. VII, fig. 8.



NHMUK PV P 6360\_1

*Caturus (Callopterus?) latidens*. Woodward, 1918. Holotype.

Imperfect head, left side.

Wealden: Hastings, Sussex.

S.H. Beckles Collection, April 1891.

1918. The Fossil Fishes of the English Wealden and Purbeck Formations. Part II. *Palaeont. Soc. Lond.*, p. 83, text fig. 28B.



NHMUK PV P 6360\_4

*Caturus (Callopterus?) latidens*. Woodward, 1918. Holotype.

Imperfect skull.

Wealden: Hastings, Sussex.

S.H. Beckles Collection, April 1891.

1918. The Fossil Fishes of the English Wealden and Purbeck Formations. Part II. *Palaeont. Soc. Lond.*, p. 83, text fig. 28C.



NHMUK PV P 6364\_1

*Neorhombolepis valdensis*. Woodward, 1895. Holotype.

Imperfect coiled up fish.

Wealden: Sussex.

Beckles Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 356, pl. VIII, fig. 5.



NHMUK PV OR 43077-1

*Neorhombolepis excelsus*. Woodward, 1888. Part of holotype. *Gen. nov.*

Right lateral aspect: anterior part of skull, pectoral fin and scales.

Lower Chalk: Upper Halling, Kent.

Purchased J. Simmons, 1871.

1888. *A Synopsis of the Vertebrate Fossils of the English Chalk*. *Proc. Geol. Assoc.* **10**, p. 304, pl. 1, fig. 1.



NHMUK PV OR 43077-3

*Neorhombolepis excelsus*. Woodward, 1888. Part of holotype. *Gen. nov.*

Head, right lateral aspect.

Grey Chalk (Turonian): Upper Halling, Kent.

Purchased J. Simmons, Aug. 1871.

1888. *A Synopsis of the Vertebrate Fossils of the English Chalk*, *Proc. Geol. Ass.* **10**, 304.



NHMUK PV OR 43077-2

*Neorhombolepis excelsus*. Woodward, 1888. Part of holotype. *Gen. nov.*

Hinder portion of cranial roof.

Grey Chalk (Turonian): Upper Halling, Kent.

Purchased J. Simmons, Aug. 1871.

1888. A Synopsis of the Vertebrate Fossils of the English Chalk, *Proc. Geol. Ass.* **10**, 304.



NHMUK PV OR 43077-5

*Neorhombolepis excelsus*. Woodward, 1888. Part of holotype. *Gen. nov.*

Counterpart of head.

Grey Chalk (Turonian): Upper Halling, Kent.

Purchased J. Simmons, Aug. 1871.

1888. A Synopsis of the Vertebrate Fossils of the English Chalk, *Proc. Geol. Ass.* **10**, p. 304.



NHMUK PV P 4705-1

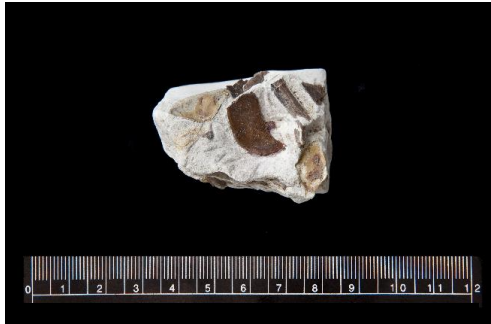
*Neorhombolepis(?) punctatus*. Woodward, 1895. Holotype.

Detached scales.

Lower Chalk (zone of *Holaster subglobus*): Burham, Kent.

Enniskillen Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 357.



NHMUK PV P 4705-2

*Neorhombolepis(?) punctatus*. Woodward, 1895. Holotype.  
Detached scales.

Lower Chalk (zone of *Holaster subglobus*): Burham, Kent.  
Enniskillen Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 357.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Amiiformes**



NHMUK PV P 9620-1

*Calamopleurus mawsoni* (Woodward) Grande & Bemis 1998.

*Megalurus mawsoni*. Woodward, 1902. Holotype.

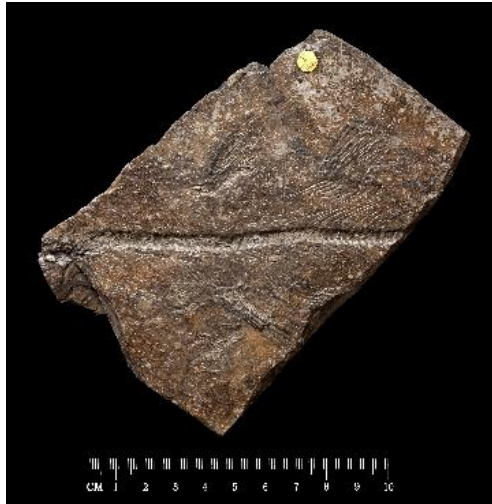
Fish wanting head shown in right lateral aspect.

Ilhas Group, Marfim Formation (?late Hauterivian), Recôncavo Basin, km 4 of the Calçada station, municipality of Salvador, state of Bahia, Brazil.

Presented by Joseph Mawson Esq., F.G.S., 1901.

1902. On an Amioid Fish (*Megalurus Mawsoni*, sp. n.) from the Cretaceous of Bahia, Brazil, *Ann. Mag. Nat. Hist.* (7) **9**, 87-89, pl. II.

Grande, L & Bemis, W. E. 1998. A comprehensive phylogenetic study of amiid fishes (Amiidae) based on comparative skeletal anatomy. An Empirical Search for Interconnected Patterns of Natural History. *Journal of Vertebrate Paleontology*, **18**(suppl. 1), Memoir 4.



NHMUK PV P 9620-2

*Calamopleurus mawsoni* (Woodward) Grande & Bemis 1998.

*Megalurus mawsoni*. Woodward, 1902. Partial counterpart of holotype.

Ilhas Group, Marfim Formation (?late Hauterivian), Recôncavo Basin, km 4 of the Calçada station, municipality of Salvador, state of Bahia, Brazil.

Presented by Joseph Mawson Esq., F.G.S., 1901.

1902. On an Amioid Fish (*Megalurus Mawsoni*, sp. n.) from the Cretaceous of Bahia, Brazil, *Ann. Mag. Nat. Hist.* (7) **9**, 87-89.

Grande, L & Bemis, W. E. 1998. A comprehensive phylogenetic study of amiid fishes (Amiidae) based on comparative skeletal anatomy. An Empirical Search for Interconnected Patterns of Natural History. *Journal of Vertebrate Paleontology*, **18**(suppl. 1), Memoir 4.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Pachycormiformes**

NO IMAGE

NHMUK PV P 10000

*Leedsichthys problematicus*. Woodward, 1889. Type. *Gen. nov.*

Associated series of bones described in the reference below.

Oxford Clay: Peterborough.

Leeds Collection.

1889. Preliminary Notes on some new and little-known British Jurassic Fishes. *Geol. Mag.* (3) **6**, p. 451.



NHMUK PV P 6916-1\_1

*Hypsocormus tenuirostris*. Woodward, 1889. Part of holotype.

Portion of dentary, oral aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1889. Preliminary Notes on some new and little-known British Jurassic Fishes. *Geol. Mag.* (3) **6**, p. 451.



NHMUK PV P 6916-1\_2

*Hypsocormus tenuirostris*. Woodward, 1889. Part of holotype.

Portion of dentary, inner aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1889. Preliminary Notes on some new and little-known British Jurassic Fishes. *Geol. Mag.* (3) 6, p. 451.



NHMUK PV P 6916-2\_1

*Hypsocormus tenuirostris*. Woodward, 1889. Part of holotype.

Maxilla and premaxilla, outer aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1889. Preliminary Notes on some new and little-known British Jurassic Fishes. *Geol. Mag.* (3) 6, p. 451.



NHMUK PV P 6916-3\_2

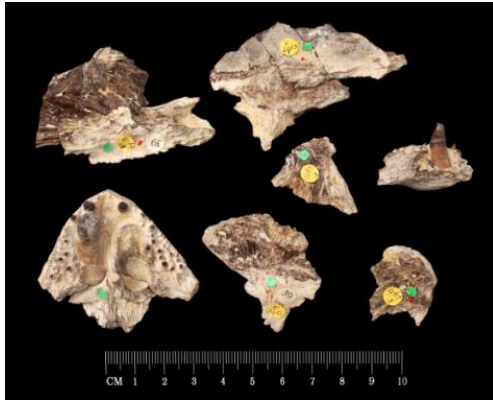
*Hypsocormus tenuirostris*. Woodward, 1889. Part of holotype.

Rostrum, inferior aspect.

Oxford Clay: Peterborough.

Leeds Collection.

1889. Preliminary Notes on some new and little-known British Jurassic Fishes. *Geol. Mag.* (3) 6, p. 451.



NHMUK PV P 6913\_1

*Hypsocormus leedsii*. Woodward, 1889. Holotype.

Rostrum, portion of splenial, the two post-frontals and other fragments of cranium.

Oxfordian: Huntingdonshire.

Leeds Collection (obtained by purchase 1890-95).

1889. Preliminary Notes on some new and little-known British Jurassic Fishes. *Geol. Mag.* (3) 6, p. 450.



NHMUK PV P 6913\_2

*Hypsocormus leedsii*. Woodward, 1889. Holotype.

Rostrum, portion of splenial, the two post-frontals and other fragments of cranium.

Oxfordian: Huntingdonshire.

Leeds Collection (obtained by purchase 1890-95).

1889. Preliminary Notes on some new and little-known British Jurassic Fishes. *Geol. Mag.* (3) 6, p. 450.



NHMUK PV P 7253\_2

*Protosphyraena brevirostris*. Woodward, 1895. Holotype.

Rostrum, upper aspect.

Cenomanian (Cambridge Greensand): Cambridgeshire.

Jesson Collection.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 212, pl. VIII, fig. 9.

NO IMAGE CURRENTLY AVAILABLE

CM B 8986

*Protosphyraena ornata*. Woodward, 1895. Holotype.

Imperfect rostrum.

Cretaceous (Cambridge Greensand): Cambridgeshire.

Sedgwick Museum of Earth Sciences.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 212, pl. VIII, fig. 7.



CM 8988

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=20002758>

*Protosphyraena depressa*. Woodward, 1895. Holotype.

**Rostrum.**

Cretaceous (Cambridge Greensand): Cambridgeshire.

Albian Age (Cretaceous Period) (99.6 – 112 Ma B.P.)

Sedgwick Museum of Earth Sciences.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 212, pl. VIII, fig. 8.



SM B 8985

Image © Sedgwick Museum of Earth Sciences

*Protosphyraena keepingi*. Woodward, 1895. Type.

Imperfect rostrum.

Cretaceous (Cambridge Greensand): Cambridgeshire.

Sedgwick Museum of Earth Sciences.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 212, woodcut, fig. 4.



CM B 8984

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=20002756>

*Protosphyraena tenuirostris*. Woodward, 1895. Holotype.

Rostrum.

Cretaceous (Cambridge Greensand): Cambridgeshire.

Albian Age (Cretaceous Period) (99.6 – 112 Ma B.P.)

Sedgwick Museum of Earth Sciences.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 211, woodcut, fig. 1.



NHMUK PV P 5631\_2

*Protosphyraena compressirostris*. Woodward, 1895. Type.

Rostrum.

Chalk, Senonian: Kent.

Harford Collection.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) 2, p. 213, woodcut, fig. 2.



NHMUK PV P 11216-1

*Protosphyraena stebbingi*. Woodward, 1909. Type.

Portions of rostrum.

Lower Chalk: Betchworth, Surrey.

Presented by W.P.D. Stebbing Esq., 1913.

1909. The Fossil Fishes of the English Chalk. Part V. *Palaeont. Soc. Lond.*, p. 153, pl. XXXIII, fig. 3.



NHMUK PV P 11216-2

*Protosphyraena stebbingi*. Woodward, 1909. Type.

Portions of rostrum.

Lower Chalk: Betchworth, Surrey.

Presented by W.P.D. Stebbing Esq., 1913.

1909. The Fossil Fishes of the English Chalk. Part V. *Palaeont. Soc. Lond.* p. 153, pl. XXXIII, fig. 3a.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Aspidorhynchiformes**



NHMUK PV P 6175

*Belonostomus dorsetensis*. Woodward, 1895. Type.

Cranium, inferior aspect (top), associated left ectopterygoid (middle), dentary (bottom right) and presymphysial bone (bottom left).

Kimmeridge Clay: Weymouth.

Purchased 1890.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 433, pl. XIV, fig. 2.



NHMUK PV P 13265

*Belonostomus hooleyi*. Woodward, 1918. Holotype.

Imperfect principal scale of flank.

Wealden: Atherfield, Isle of Wight.

Collection of Reginald Hooley, Esq.

1918. *The Fossil Fishes of the English Wealden and Purbeck Formations. Palaeont. Soc. Lond.*, Part II, p. 100, pl. XXI, fig. 1.

NO IMAGE

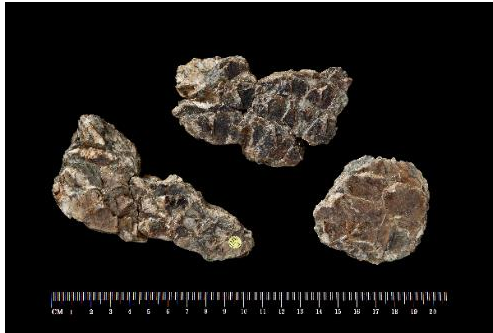
*Belonostomus sweeti*. Woodward, 1892. Syntypes.

Imperfect fish wanting the greater part of the head plus four fragments.

Cretaceous Rolling Downs Formation: Central Queensland, Australia.

Geological Survey of NSW (Sweet Collection), Melbourne.

1892. (With R. ETHERIDGE, jun.) On the Occurrence of the Genus *Belonostomus* in the Rolling Downs Formation (Cretaceous) of Central Queensland. *Trans. Roy. Soc. Victoria*, 2, Part 2, 1-7, pl. 1.



NHMUK PV P 10062

*Belonostomus(?) carinatus*. Woodward, 1907. Holotype.

Naturally associated scales.

Ilhas Group, Marfim Formation, (?late Hauterivian), Recôncavo Basin, municipality of Itacaranha, state of Bahia, Brazil.

Presented by J. Mawson Esq., 1904.

1907. (With J. MAWSON.) On the Cretaceous Formation of Bahia (Brazil), and on the Vertebrate Fossils contained therein, *Quart. J. Geol. Soc.*, **63**, 133, pl. VI, figs. 4, 5.



NHMUK PV OR 39199

*Aspidorhynchus crassus*. Woodward, 1890. Syntype.

Skull, dorso-lateral aspect.

Stonesfield Slate: Stonesfield, near Oxford.

Bowerbank Collection, purchased 1865.

1890. A Synopsis of the Fossil Fishes of the English Lower Oolites. *Proc. Geol. Ass.* **11**, p. 295, pl. III, fig. 11.



NHMUK PV OR 39200

*Aspidorhynchus crassus*. Woodward, 1890. Syntype.

Skull, dorso-lateral aspect.

Stonesfield Slate: Stonesfield, near Oxford.

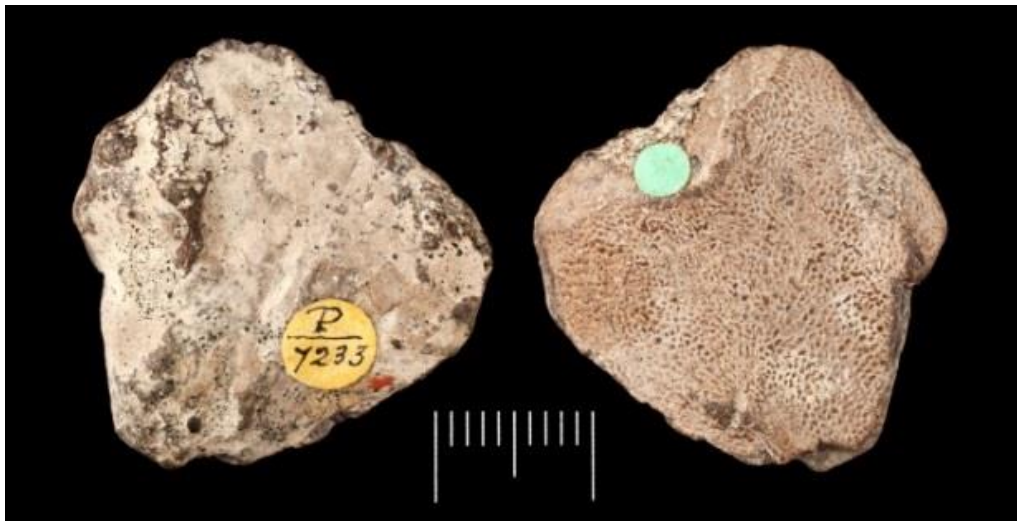
Bowerbank Collection, purchased 1865.

1890. A Synopsis of the Fossil Fishes of the English Lower Oolites. *Proc. Geol. Ass.* **11**, p. 295, pl. III, fig. 12.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Pholidophoriformes**



NHMUK PV P 7233

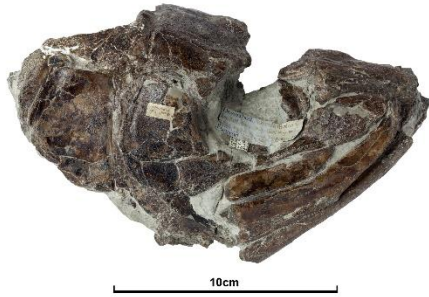
*Lophiostomus affinis*. Woodward, 1895. Holotype.

Occipital half of cranial roof, upper aspect (image on right).

Cenomanian (Cambridge Greensand): Cambridge.

Jesson Collection.

1895. A Synopsis of the Remains of Ganoid Fishes from the Cambridge Greensand. *Geol. Mag.* (4) **2**, p. 210, pl. VIII, fig. 6.



SM J 23021

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=20006772>

*Eurycormus grandis*. Woodward, 1889. Holotype.

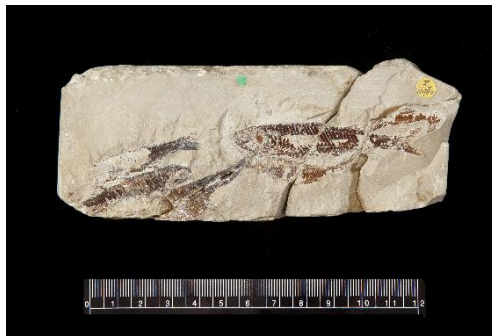
Head.

Kimmeridge Clay: Ely, Cambridgeshire

Kimmeridgian Age (Jurassic Period) (150.8 – 155.6 Ma B.P.)

Sedgwick Museum of Natural Sciences. Collected by Henry Keeping

1889. Preliminary Notes on some new and little-known British Jurassic Fishes. *Geol. Mag.* (3) 6, p. 449.



NHMUK PV P 10986-2

*Pleuropholis formosa*. Woodward, 1919. Holotype.

Nearly complete fish in counterpart.

Lower Purbeck Beds: Teffont, Vale of Wardour, Wiltshire.

Purchased E. Penny, 1911.

1919. The Fossil Fishes of the English Wealden and Purbeck Formations. Part III. *Palaeont. Soc. Lond.*, p. 115, pl. XXIII, fig. 8.



NHMUK PV P 10986-1

*Pleuropholis formosa*. Woodward, 1919. Holotype.

Nearly complete fish in counterpart.

Lower Purbeck Beds: Teffont, Vale of Wardour, Wiltshire.

Purchased E. Penny, 1911.

1919. The Fossil Fishes of the English Wealden and Purbeck Formations. Part III. *Palaeont. Soc. Lond.*, p. 115.



NHMUK PV P 3664

*Pholidophorus caudalis*. Woodward, 1895. Holotype.

Nearly complete fish.

Lower Lias: Dorsetshire.

Enniskillen Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 457, pl. XVIII, fig. 1.



NHMUK PV P 3664a

*Pholidophorus caudalis*. Woodward, 1895. Paratype.

Imperfect specimen.

Lower Lias: Dorsetshire.

Enniskillen Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 457, pl. XVIII, fig. 2.



NHMUK PV P 1083

*Pholidophorus similis*. Woodward, 1895. Holotype.

Nearly complete fish.

Lower Kimmeridgian (Lithographic Stone): Cirin, Ain, France.

Egerton Collection.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 470, pl. XIII, fig. 2.

NO IMAGE

*Pholidophorus australis*. Woodward, 1908. Type.  
Complete fish.

Wianamatta Shales, Triassic Hawkesbury Series: St. Peters, Sydney, NSW.  
?Geological Survey, NSW.

1908. The Fossil Fishes of the Hawkesbury Series at St. Peter's; with Note by W. S. DUN. *Mem. Geol. Surv. N.S. Wales, Palaeont.*, **10**, p. 26, pl. IV, fig. 9.

NO IMAGE

*Pholidophorus gregarius*. Woodward, 1890. Lectotype.  
Complete fish, the trunk preserved in counterpart.

Lower Triassic: Gosford, NSW, Australia.  
?Mining Museum, Sydney, Australia.

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.*, **4**, p. 44, pl. VI, fig. 6.

NO IMAGE

*Aphnelepis australis*. Woodward, 1895. Type. *Gen. nov.*  
Cearly complete fish, much fractured.

Upper Hawkesbury-Wiannamatta Series: Talbragar, New South Wales.  
?Geological Survey, NSW.

1895. The Fossil Fishes of the Talbragar Beds (Jurassic?), *Mem. Geol. Surv. N.S. Wales, Palaeont.*, **9**, p. 9, pl. III, fig. 1.



NHMUK PV OR 42013

*Oligopleurus vectensis*. Woodward, 1890. Holotype.  
Skull, left and right lateral views.

Wealden: Isle of Wight.  
Purchased B. Wright, 1870.

1890. On some new Fishes from the English Wealden and Purbeck Beds, referable to the Genera *Oligopleurus*, *Strobilodus* and *Mesodon*. *Proc. Zool. Soc.*, p. 346, pl. XXVIII, fig. 1.

NO IMAGE

*Archaeomaene robustus*. Woodward, 1895. Type. *Gen. nov.*  
Fish, imperfect in the caudal region and ventrally.

Upper Hawkesbury-Wiannamatta Series: Talbragar, New South Wales.  
?Geological Survey, NSW.

1895. The Fossil Fishes of the Talbragar Beds (Jurassic?), *Mem. Geol. Surv. N.S. Wales, Palaeont.*, **9**, p. 18, pl. V, fig. 2.

NO IMAGE

*Archaeomaene tenuis*. Woodward, 1895. Type. *Gen. nov.*

Nearly complete fish.

Upper Hawkesbury-Wiannamatta Series: Talbragar, New South Wales.

Mining Museum, Sydney, Australia.

1895. The Fossil Fishes of the Talbragar Beds (Jurassic?), *Mem. Geol. Surv. N.S. Wales, Palaeont.*, 9, p. 16, pl. II, fig. 5.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Ichthyodectiformes**

NO IMAGE

*Anogmius ornatus*. Woodward, 1923. Type.

Greater part of the head and trunk as far back as the pelvic fins.

Lower Chalk (zone of *Holaster subglobus*): South Ferriby, Lincolnshire.

Municipal Museum, Hull.

1923. On a new Fossil Fish (*Anogmius ornatus*, sp. nov.) from the Lower Chalk of South Ferriby, Lincolnshire. *Naturalist, Lond.*, 297-300, 1 text fig.

NO IMAGE

*Portheus australis*. Woodward, 1894. Type.

Anterior two thirds of the jaws with part of the base of the cranium exposed on both sides.

Lower Cretaceous: Clutha Station, near Hughenden, Gidgery Creek, Queensland, Australia.

Museum of Queensland Geological Survey.

1894. On some Fish-remains of the Genera *Portheus* and *Cladocyclus*, from the Rolling Downs Formation (Lower Cretaceous) of Queensland. *Ann. Mag. Nat. Hist.* (6) 14, p. 444, pl. X, figs. 1.



NHMUK PV P 417a

*Thriassops molossus*. Woodward, 1919. Type.

Imperfect fish.

Middle Purbeck Beds: Swanage, Dorset.

Purchased from the executors of Rev'd. W. Fox.

1919. The Fossil Fishes of the English Wealden and Purbeck Formations. Part III. *Palaeont. Soc. Lond.*, p. 138, pl. XXVI, fig. 2.



NHMUK PV P 5538

*Thrissops portlandicus*. Woodward, 1895. Type.

Nearly complete fish, in counterpart.

Portlandian, Dorset.

Presented by F. Harford, Esq., 1888.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 525, pl. XVIII, fig. 4.



NHMUK PV P 5538a

*Thrissops portlandicus*. Woodward, 1895. Type.

Nearly complete fish, in counterpart.

Portlandian, Dorset.

Presented by F. Harford, Esq., 1888.

1895. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part III, p. 525.



NHMUK PV P 10612

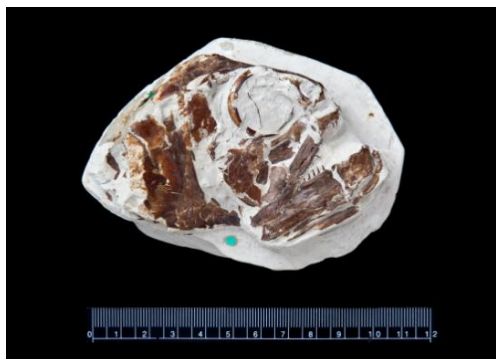
*Thrissops curtus*. Woodward, 1919. Holotype.

Imperfect fish.

Lower Purbeck Beds: Isle of Portland.

Purchased from J. J. R. Short, Aug. 1908.

1919. *The Fossil Fishes of the English Wealden and Purbeck Formations. Part III. Palaeont. Soc. Lond.*, p. 137, pl. XXVI, fig. 1.



NHMUK PV OR 49054

*Ichthyodectes tenuidens*. Woodward, 1901. Holotype.

Imperfect head.

Lower Chalk (zone of *Holaster subglobus*): Burham, Kent.

Mrs Smith's Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 104, pl. IX, fig. 6.



NHMUK PV P 8633

*Ichthyodectes serridens*. Woodward, 1901. Holotype.

Head and part of abdominal region.

Gault: Folkestone, Kent.

Purchased, 1897.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 101, pl. VIII.

NO IMAGE

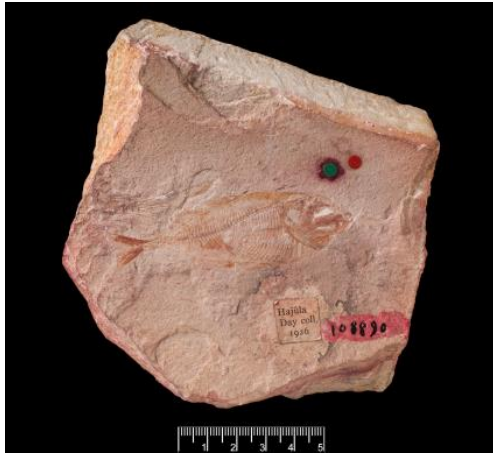
*Cladocyclus sweeti*. Woodward, 1894. Type.

Detached scale.

Lower Cretaceous: Queensland, Australia.

Collection of George Sweet, Esq., F.G.S., The Close, Brunswick, Melbourne.

1894. On some Fish-remains of the Genera *Portheus* and *Cladocyclus*, from the Rolling Downs Formation (Lower Cretaceous) of Queensland. *Ann. Mag. Nat. Hist.* (6) **14**, p. 445, pl. X, fig. 2.



AUB.108890

*Protobrama avus*. Woodward, 1942. Type. *Gen. nov.*

Nearly complete fish, in counterpart.

Upper Cretaceous: Hajula, Lebanon.

A.E. Day Collection. American University of Beirut No. 108890.

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) 9, p. 550, pl. VI, fig. 1, text fig.3.



AUB.108891

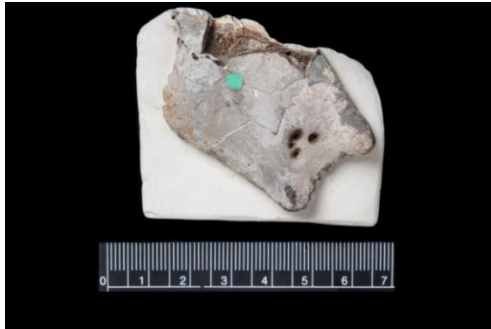
*Protobrama avus*. Woodward, 1942. Type. *Gen. nov.*

Nearly complete fish, in counterpart.

Upper Cretaceous: Hajula, Lebanon.

A.E. Day Collection. American University of Beirut No. 108891.

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) 9, p. 550.



NHMUK PV OR 41716a

*Plethodus pentagon*. Woodward, 1899. Type.

Lower dental plate.

Lower Chalk (zone of *Holaster subglobus*): Burham, Kent.

Toulmin Smith Collection.

1899. On the Cretaceous Fish *Plethodus*. *Ann. Mag. Nat. Hist.* (7) 3, p. 356, pl. XIII, fig. 5.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Gonorynchiformes**

**Family: Gonorynchidae**



NHMUK PV P 9173

*Charitosomus major*. Woodward, 1901. Holotype.

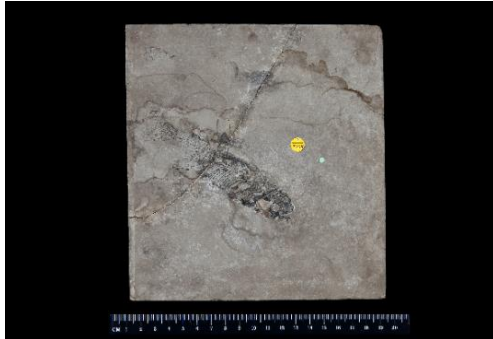
Imperfect fish.

Upper Cretaceous: Sahel Alma, Mt. Lebanon, Lebanon.

Lewis Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 273, pl. XV, fig. 3.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Osteoglossiformes**  
**Family: Lycopteridae**



NHMUK PV P 7358

*Lycoptera sinensis*. Woodward, 1901. Holotype.

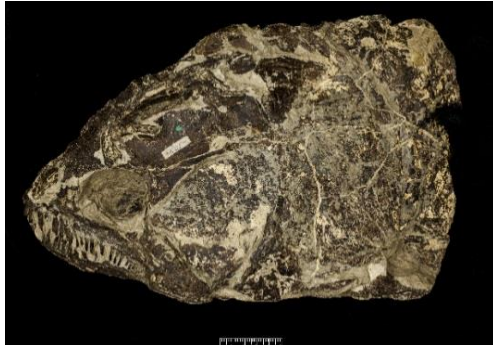
Imperfect fish.

Lower Jurassic (?): Poh-tse, near Layang Nsien, Province of Shantung, China.

Purchased 1894. Collected by H. M. Becher.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 3.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Osteoglossiformes**  
**Family: Osteoglossidae**



NHMUK PV P 3893\_1

*Brychaetus muelleri*. Woodward, 1901. Holotype.

Left lateral aspect.

Lower Eocene (London Clay): Sheppey, Kent.

Enniskillen Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 76, pl. I, fig 1.



NHMUK PV P 3893\_2

*Brychaetus muelleri*. Woodward, 1901. Holotype. *Gen. nov.*

Right lateral aspect.

Lower Eocene (London Clay): Sheppey, Kent.  
Enniskillen Collection.

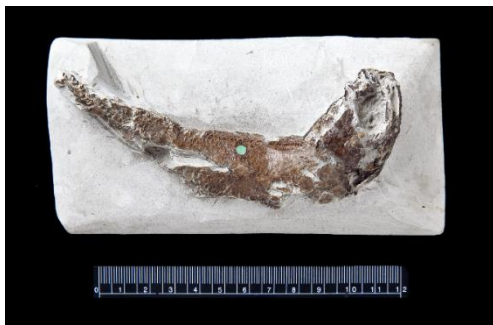
1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 76.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Albuliformes**

**Family: Osmerodidae**



NHMUK PV P 5681\_1

*Osmeroides levis*. Woodward, 1901. Type.

Imperfect fish.

Lower Chalk (zone of *Holaster subglobus*): Burham, Kent.  
Harford Collection.

1895. A Description of the so-called Salmonoid Fishes of the English Chalk. *Proc. Zool. Soc.*, p. 660, pl. XLIII, fig. 2. (as *Aulolepis typus* Agassiz).

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 15.



NHMUK PV P 10465

*Osmeroides latifrons*. Woodward, 1907. Type.

Skull etc.

Upper Chalk, Zone of *Holaster subglobus*: Wouldham, Kent.

Dibley Collection.

1907. The Fossil Fishes of the English Chalk. Part III. *Palaeont. Soc. Lond.*, p. 119, pl. XXIV, fig. 1.



NHMUK PV OR 39432\_2

*Dinelops ornatus*. Woodward, 1907. Part of holotype. *Gen. nov.*

Snout.

Probably zone of *Holaster subglobus*: Kent.

Bowerbank Collection.

1907. The Fossil Fishes of the English Chalk. Part III. *Palaeont. Soc. Lond.*, p. 121, pl. XXIV, fig. 4.



NHMUK PV OR 39432\_1

*Dinelops ornatus*. Woodward, 1907. Part of holotype. *Gen. nov.*  
Head and trunk.

Probably zone of *Holaster subglobus*: Kent.

Bowerbank Collection.

1907. The Fossil Fishes of the English Chalk. Part III. *Palaeont. Soc. Lond.*, p. 121, pl. XXIV, fig. 4.



NHMUK PV OR 49091

*Dinelops ornatus*. Woodward, 1907. Paratypes. *Gen. nov.*

Portion of left dentary, outer aspect.

Chalk: Kent.

Mrs Smith's Collection.

1907. The Fossil Fishes of the English Chalk. Part III. *Palaeont. Soc. Lond.*, p. 122, pl. XXIV, fig. 6.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Albuliformes**

**Family: Albulidae**

NO IMAGE

*Hajulia multicens*. Woodward, 1942. Type. *Gen. nov.*

Nearly complete fish.

Upper Cretaceous (Turonian): Hakel, Lebanon.

American University of Beirut No. 100509.

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) 9, p. 557, pl. VI, fig. 3.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Anguilliformes**



NHMUK PV P 14484

*Mylomyrus frangens*. Woodward, 1910. Holotype. *Gen. nov.*

Almost complete fish.

Eocene limestone: Tura, near Cairo, Egypt.

Presented by Cecil Crawley, 1928.

1910. On a Fossil Sole and a Fossil Eel from the Eocene of Egypt. *Geol. Mag.* (5) 7, p. 404, pl. XXXIII, fig. 2.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Anguilliformes**  
**Family: Urenchelyidae**



BMB 007246

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=25000975>

*Urenchelys anglicus*. Woodward, 1900. Holotype. *Gen. nov.*

Well preserved skull.

Middle Chalk: Houghton, West Sussex.

Late Cretaceous Epoch (Cretaceous Period) (65.5 – 99.6 Ma B.P.)

Booth Museum of Natural History.

1900. Evidence of an Extinct Eel (*Urenchelys anglicus*, sp. n.) from the English Chalk. *Ann. Mag. Nat. Hist.* (7) 5, 321-323, pl. IX, figs. 1, 1a.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 339.

1902. The Fossil Fishes of the English Chalk. Part I. *Palaeont. Soc. Lond.*, p. 31, pl. IX, figs. 1, 1a.



NHMUK PV P 4860

*Urenchelys avus*. Woodward, 1901. Type.

Distorted fish, right lateral aspect.

Upper Cretaceous: Sahel Alma, Lebanon.

Lewis Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 337, pl. XVIII, fig. 1.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Anguilliformes**

**Family: Ophichthidae**



NHMUK PV P 633\_1

*Rhynchorhinus branchialis*. Woodward, 1901. Holotype. *Gen. nov.*

Abraded hinder portion of skull and mandible, ventral view.

London Clay: Sheppey.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 342.



NHMUK PV P 633\_2

*Rhynchorhinus branchialis*. Woodward, 1901. Holotype. *Gen. nov.*

Abraded hinder portion of skull and mandible, left lateral view.

London Clay: Sheppey.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 342.



NHMUK PV P 633\_3

*Rhynchorhinus branchialis*. Woodward, 1901. Holotype. *Gen. nov.*

Abraded hinder portion of skull and mandible, right lateral view.

London Clay: Sheppey.

Egerton Collection.

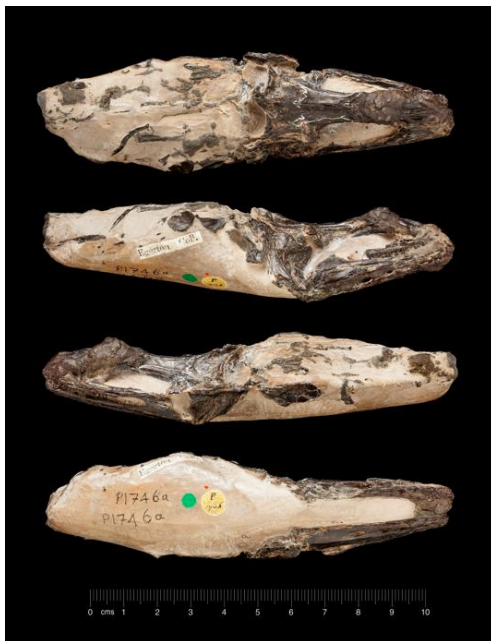
1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 342.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Anguilliformes**

**Family: Chlopsidae**



NHMUK PV P 1746a

*Rhynchorhinus major*. Woodward, 1901. Holotype.

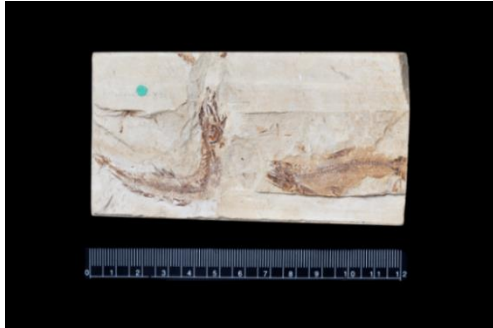
Imperfect head in nodule. Views from top: dorsal; right lateral; left lateral; ventral.

London Clay: Sheppey.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 343.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Notacanthiformes**  
**Family: Halosauridae**



NHMUK PV P 5998

*Enchelurus syriacus* (specimen on the left). Woodward, 1901. Holotype.

Distorted fish.

Upper Cretaceous: Sahel Alma, Mt. Lebanon, Syria.

Lewis Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 165, pl. XII, fig. 1.



NHMUK PV P 4249

*Enchelurus anglicus*. Woodward, 1901. Holotype.

Imperfect anterior half of fish.

Lower Chalk: probably Kent.

Enniskillen Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 167, pl. XII, fig. 3.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Ellimmichthyiformes**



NHMUK PV P 96

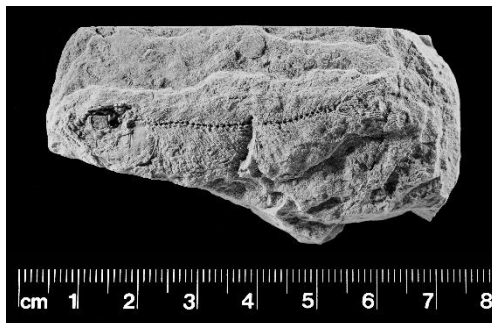
*Diplomystus birdi*. Woodward, 1895. Type.

Nearly complete fish.

Upper Cretaceous: Hakel, Mt. Lebanon.

Lewis Collection.

1895. On two Deep-bodied Species of the Clupeoid Genus *Diplomystus*. *Ann. Mag. Nat. Hist.* (6) **15**, p. 3, pl. I, fig. 3.



NHMUK PV P 10015

*Diplomystus marmorensis*. Woodward, 1904. Holotype.

Impression of imperfect fish.

Miocene (lacustrine Sarmatian): Gorgona Deré, near Sarkeui, Sea of Marmora, Turkey.

Presented Col. Thomas English, June 1904.

1904. Pisces. In T. ENGLISH. Eocene and Later Formations surrounding the Dardanelles. *Quart. J. Geol. Soc.* **60**, p. 284, pl. XXIV, fig. 28.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Clupeiformes**



NHMUK PV P 63873a

*Pateroperca libanica*. Woodward, 1942. Holotype. *Gen. nov.*

Nearly complete fish in counterpart.

Upper Cretaceous: Hajula, Lebanon.

A.E Day Collection, American University of Beirut No. 108906.

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) **9**, p. 546, text fig. 2.



NHMUK PV P 63873b

*Pateroperca libanica*. Woodward, 1942. Holotype. *Gen. nov.*

Nearly complete fish in counterpart.

Upper Cretaceous: Hajula, Lebanon.

A.E Day Collection, American University of Beirut No. 108906.

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) **9**, p. 546.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Clupeiformes**  
**Family: Clupeidae**



NHMUK PV P 25259-66 – Paralectotypes



DGM 33 – Lectotype. Scale bar: 10mm.

*Paleopiquitinga brasiliensis*. (Woodward) Figueiredo, 2010.

*Knightsia brasiliensis*. Woodward, 1939.

Small, immature fishes.

Tertiary: Nova Iorque beds (Pliocene), left bank of the Parnaíba River, municipality of Nova Iorque, state of Maranhão, Brazil.

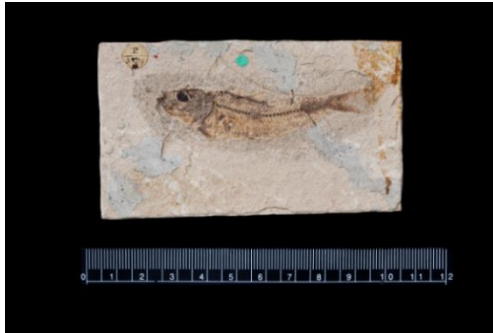
NHMUK PV P 25259-66 - Presented Director General of the Geological and Mineralogical Service of Brazil through Sir Arthur Smith Woodward, May 1939.

DGM 33 – Departamento de Geologia e Mineralogia, Serviço Geológica Nacional do Brasil – old acronym for palaeontological collections currently held by CPRM – Companhia de Pesquisa de Recursos Minerais, Rio de Janeiro.

1939. Tertiary Fossil Fishes from the Maranhão, Brazil. *Ann. Mag. Nat. Hist.* (11) 3, 450-453, pl. XVI, figs. 1,2.

Figueiredo, F. J. 2010. Morphological and systematic reassessment of †*Knightsia brasiliensis* Woodward, 1939 (Teleostei, Clupeiformes) from the Pliocene of Parnaíba Basin, northeastern Brazil. *Zootaxa*, 2440, 1-17.

See also Brito & Richter 2016.



NHMUK PV P 3829a

*Clupea catopygoptera*. Woodward, 1901. Holotype.

Nearly complete fish.

Upper Eocene: Monte Bolca, near Verona, N. Italy.

Enniskillen Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 148, pl. VI, fig. 2.



NHMUK PV P 10570-2

*Scombroclupeoides scutata*. Woodward, 1942. Holotype.

*Scombroclupea scutata*. Woodward, 1908. Holotype.

Imperfect fish in counterpart.

Lower Cretaceous: Ilhéos, State of Bahia (Brazil).

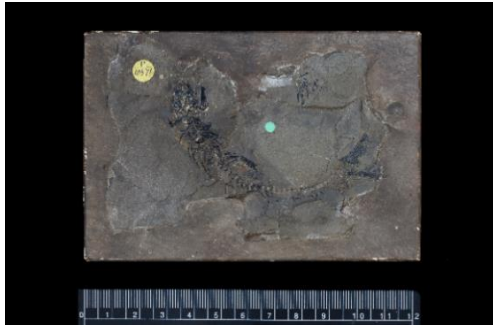
Presented by Dr Ennes de Souza, Dec. 1907.

1908. On some Fossil Fishes discovered by Professor Ennes de Souza in the Cretaceous Formation at Ilhéos, State of Bahia (Brazil). *Quart. J. Geol. Soc.* **64**, p. 360, pl. XLIII, fig. 3.

1942. The beginning of the teleostean fishes. *Ann. Mag. Nat. Hist., Series 11*, **9**, p. 909.



NHMUK PV P 10570-1



NHMUK PV P 10571

*Scombroclupeoides scutata*. Woodward, 1942.

*Scombroclupea scutata*. Woodward, 1908. Paratype.

Imperfect fish.

Lower Cretaceous: Ilhéos, State of Bahia (Brazil).

Presented by Dr Ennes de Souza, Dec. 1907.

1908. On some Fossil Fishes discovered by Professor Ennes de Souza in the Cretaceous Formation at Ilhéos, State of Bahia (Brazil). *Quart. J. Geol. Soc.* **64**, p. 360, pl. XLIII, fig. 4.

1942. The beginning of the teleostean fishes. *Ann. Mag. Nat. Hist., Series 11*, **9**, p. 909.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Characiformes**

**Family: Characidae**



NHMUK PV P 9222

*Tetragonopterus avus*. Woodward, 1898. Holotype.

Tertiary Lignite: Taubaté, Province of São Paulo, Brazil.

Presented by John Gordon Esq., 1900.

1898. Considerações sobre alguns peixes Terciários dos schistos de Taubaté, Estrado de S. Paulo, Brazil. *Rev. Mus. Paulista, Sao Paulo*, **3**, p. 66, pl. IV, fig. 3.



NHMUK PV P 9012

*Tetragonopterus ligniticus*. Woodward, 1898. Holotype.

Tertiary Lignite: Taubaté, Province of São Paulo, Brazil.

By exchange, 1898.

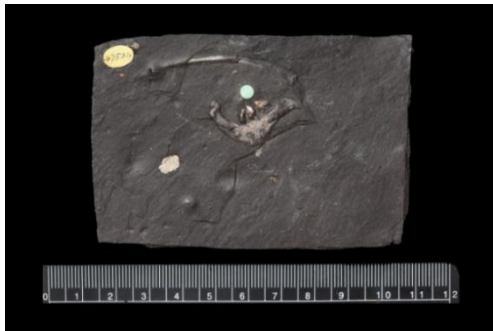
1898. Considerações sobre alguns peixes Terciários dos schistos de Taubaté, Estrado de S. Paulo, Brazil. *Rev. Mus. Paulista*, Sao Paulo, 3, p. 67, pl. IV, fig. 4.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Cypriniformes**

**Family: Cyprinidae**



NHMUK PV OR 47534

*Hexapsephus guentheri*. Woodward, 1901. Holotype.

Pharangeal with dentition.

Tertiary (freshwater) Formation: Padang, Sumatra.

Presented Herr R.D.M. Verbeek, Oct. 1876.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 322.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Siluriformes**  
**Family: Ariidae**



NHMUK PV OR 40280

*Arius(?) bartonensis*. Woodward, 1887. Syntypes.

Small spine.

Upper Eocene: High Cliff, Barton, Hampshire.

Edwards Collection.

1887. On some Remains of Siluroid Fishes from British Eocene Formations. *Geol. Mag.* (3) 4, 303-307, text fig. 3.



NHMUK PV P 9220

*Arius iheringi*. Woodward, 1898. Type.

Impression of skull.

Tertiary lignite: Taubaté, Province of São Paulo, Brazil.

Presented by John Gordon, Esq., 1900.

1898. Considerações sobre alguns peixes Terciarios dos schistos de Taubaté, Estrado de S. Paulo, Brazil. *Rev. Mus. Paulista, Sao Paulo*, 3, p. 64, pl. II, fig. 1.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Elopiformes**  
**Family: Megalopidae**



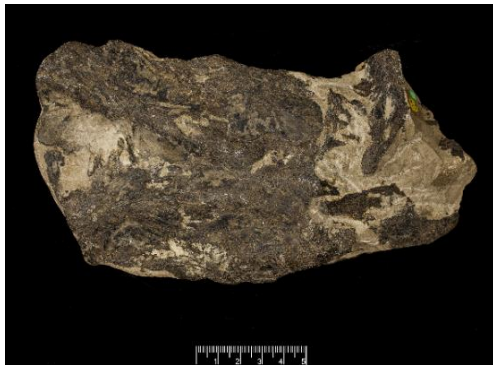
NHMUK PV OR 40333

*Pachythrissops laevis*. Woodward, 1919. Holotype. *Gen. nov.*  
Immature fish.

Middle Purbeck Beds: Swanage, Dorset.

Purchased Mr. J. Tennant, Feb. 1867.

1919. The Fossil Fishes of the English Wealden and Purbeck Formations. Part III. *Palaeont. Soc. Lond.*, p. 129, pl. XXV, fig. 1.



NHMUK PV P 634\_1

*Megalops oblongus*. Woodward, 1901. Holotype.

Much abraded imperfect cranium, view from above.

Lower Eocene (London Clay): Sheppey.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 26.



NHMUK PV P 634\_2

*Megalops oblongus*. Woodward, 1901. Holotype.

Much abraded imperfect cranium, view from below.

Lower Eocene (London Clay): Sheppey.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 26.



NHMUK PV P 634\_3

*Megalops oblongus*. Woodward, 1901. Holotype.

Much abraded imperfect cranium, views from above and below.

Lower Eocene (London Clay): Sheppey.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 26.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Elopiformes**  
**Family: Pachyrhizodontidae**



NHMUK PV OR 49826

*Thrissopater(?) megalops*. Woodward, 1901. Holotype.

Imperfect head.

Lower Chalk (probably zone of *Holaster subglobus*): Lewes.

Capron Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 35, pl. VII, fig. 4.



NHMUK PV OR 37981-1

*Thrissopater magnus*. Woodward, 1901. Holotype.

Vertically crushed imperfect head.

Lower Chalk: Hollingbourn, Kent.

Purchased, 1864.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 33, pl. V, fig. 1.



NHMUK PV P 9115

*Pachyrhizodus dibleyi*. Woodward, 1901. Holotype.

Portions of upper jaw: left premaxilla inner aspect (top left); outer aspect (top right); left maxilla outer aspect (bottom); part of oral border of left maxilla, with teeth, seen from below (middle right).

Turonian, Lower Chalk (probably zone of *Holaster subglobus*): Bluebell Hill, Burham, Kent.  
Purchased 1899.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 38, text fig. 3.



SM B 9097

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=20002759>

*Pachyrhizodus subulidens* (Owen). Woodward, 1889. Holotype.

*Rhaphiosaurus subulidens* Owen 18??. Holotype

Anterior half of left maxilla.

Lower Chalk: Cherryhinton, Cambridgeshire.

Cenomanian Age (Cretaceous Period) (93.6 – 99.6 Ma B.P.)

Cambridge Museum of Natural Sciences.

1889. On the so-called Cretaceous Lizard *Rhaphiosaurus*. *Ann. Mag. Nat. Hist.* (6) 4, 350-351.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Elopiformes**



NHMUK PV P 1749\_1

*Esocelops cavifrons*. Woodward, 1901. Paratype. *Gen. nov.*

Imperfect head, left lateral aspect.

Lower Eocene (London Clay): Sheppey, Kent.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 46, pl. III, fig. 1.



NHMUK PV P 1749\_4

*Esocelops cavifrons*. Woodward, 1901. Paratype. *Gen. nov.*

Imperfect head, inferior aspect.

Lower Eocene (London Clay): Sheppey, Kent.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 46, pl. III, fig. 1a.



NHMUK PV P 1749\_2

*Esocelops cavifrons*. Woodward, 1901. Paratype. *Gen. nov.*

Imperfect head, right lateral aspect.

Lower Eocene (London Clay): Sheppey, Kent.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 46.



NHMUK PV P 1749\_3

*Esocelops cavifrons*. Woodward, 1901. Paratype. *Gen. nov.*

Imperfect head, superior aspect.

Lower Eocene (London Clay): Sheppey, Kent.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 46.



NHMUK PV OR 39080

*Apateodus lanceolatus*. Woodward, 1901. Holotype. *Gen. nov.*

Anterior portion of premaxilla (right palatopterygoid).

Grey Chalk: Dover, Kent.

Bowerbank Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 264, pl. XIII, fig. 7.



NHMUK PV OR 49821\_2

*Apateodus striatus*. Woodward, 1901. Holotype. *Gen. nov.*

Small skull partly broken and distorted, right lateral aspect.

Lower Chalk: Southeram Pit, Lewes, Sussex.

Capron Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 260, pl. XIV, fig. 1.



NHMUK PV OR 49821\_1

*Apateodus striatus*. Woodward, 1901. Holotype. *Gen. nov.*

Small skull partly broken and distorted, left lateral aspect.

Lower Chalk: Southeram Pit, Lewes, Sussex.

Capron Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 260, pl. XIV, fig. 1a.



NHMUK PV OR 49821\_3

*Apteodus striatus*. Woodward, 1901. Holotype. *Gen. nov.*

Small skull partly broken and distorted, superior aspect.

Lower Chalk: Southeram Pit, Lewes, Sussex.

Capron Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 260, pl. XIV, fig. 1b.



NHMUK PV OR 49821\_4

*Apteodus striatus*. Woodward, 1901. Holotype. *Gen. nov.*

Small skull partly broken and distorted, inferior aspect.

Lower Chalk: Southeram Pit, Lewes, Sussex.

Capron Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 260.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Aulopiformes**  
**Family: Dercetidae**



NHMUK PV OR 49906

*Stratodus anglicus*. Woodward, 1888. Type.

Portion of dentition.

Lower Chalk: Glynde, Sussex.

Capron Collection.

1888. A Synopsis of the Vertebrate Fossils of the English Chalk. *Proc. Geol. Assoc.* **10**, p. 314, pl. I, fig. 3.



NHMUK PV OR 31075

*Dercetis maximus*. Woodward, 1903. Part of type.

Head and anterior abdominal region, left lateral aspect.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66, pl. XV, fig. 2.



NHMUK PV OR 31079\_1

*Dercetis maximus*. Woodward, 1903. Part of type.

Detached vertebrae.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66, pl. XV, fig. 2a.



NHMUK PV OR 31076

*Dercetis maximus*. Woodward, 1903. Part of type.

Scutes.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66, pl. XV, fig. 2b.



NHMUK PV OR 31077

*Dercetis maximus*. Woodward, 1903. Part of type.

Fragment of the middle of the same fish.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66, pl. XV, fig. 2c.



NHMUK PV OR 31078

*Dercetis maximus*. Woodward, 1903. Part of type.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66.



NHMUK PV OR 31079\_2

*Dercetis maximus*. Woodward, 1903. Part of type.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66.



NHMUK PV OR 31080\_1

*Dercetis maximus*. Woodward, 1903. Part of type.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66.



NHMUK PV OR 31080\_2

*Dercetis maximus*. Woodward, 1903. Part of type.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66.



NHMUK PV OR 31081\_1

*Dercetis maximus*. Woodward, 1903. Part of type.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66.



NHMUK PV OR 31081\_2

*Dercetis maximus*. Woodward, 1903. Part of type.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66.



NHMUK PV OR 31082

*Dercetis maximus*. Woodward, 1903. Part of type.

Upper Chalk, Zone of *Micraster coranguinum*: Grays, Essex.

Purchased of William Griffith.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 66.



BMB 007264

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=25000965>

*Dercetis laticutatus*. Woodward, 1903. Holotype

Middle portion of trunk

Chalk marl (probably zone of *Terebratulina gracilis*): Glynde, Sussex.

Late Cretaceous Epoch (Cretaceous Period) (65.5 – 99.6 Ma B.P.)

Booth Museum of Natural History, Willett Collection.

1903. The Fossil Fishes of the English Chalk. Part II. *Palaeont. Soc. Lond.*, p. 65, pl. XV, fig. 1.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Aulopiformes**

**Family: Enchodontidae**



NHMUK PV P 9249\_1

*Enchodus annectens*. Woodward, 1901. Holotype.

Imperfect head, left lateral aspect.

Chalk: England.

History unknown.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 195, pl. XI, fig. 4.



NHMUK PV P 9249\_2

*Enchodus annectens*. Woodward, 1901. Holotype.

Imperfect head, right lateral aspect.

Chalk: England.

History unknown.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 195, pl. XI, fig. 4a.



NHMUK PV P 1703\_1

*Enchodus pulchellus*. Woodward, 1901. Holotype.

Imperfect head, left lateral aspect.

Lower Chalk: Kent.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 194, pl. XI, fig. 2.



NHMUK PV P 1703\_2

*Enchodus pulchellus*. Woodward, 1901. Holotype.

Imperfect head, right lateral aspect.

Lower Chalk: Kent.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 194.

**Group: Osteichthyes**

**Class: Actinopterygii**



NHMUK PV P 9404

*Acrognathus libanicus*. Woodward, 1901. Type.

Imperfect fish.

Upper Cretaceous (Upper Senonian): Sahel Alma, Mt. Lebanon, Syria.

Lewis Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 244.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Myctophiformes**  
**Family: Myctophidae**



NHMUK PV P 4865

*Microcoelia libanica*. Woodward, 1901. Holotype.

Upper Cretaceous: Hakel, Mt. Lebanon.

Lewis Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 252.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Myctophiformes**  
**Family: Sardinioididae**



NHMUK PV P 8682

*Sardinioides attenuatus*. Woodward, 1901. Holotype.

Right lateral aspect.

Upper Cenomanian: Hakel, Lebanon.

Purchased C. H. V. Gollmer, Aug. 1897.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 241, pl. XII, fig. 5.



NHMUK PV P 3977\_1

*Sardinioides illustrans*. Woodward, 1902. Holotype.

Imperfect fish in dorsal aspect.

English Chalk.

Enniskillen Collection.

1902. The Fossil Fishes of the English Chalk. Part I. *Palaeont. Soc. Lond.*, p. 34, pl. X, fig. 1.



NHMUK PV P 3977\_2

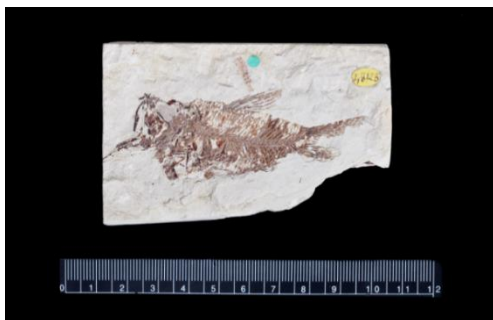
*Sardinioides illustrans*. Woodward, 1902. Holotype.

Imperfect fish, left lateral oblique aspect.

English Chalk.

Enniskillen Collection.

1902. The Fossil Fishes of the English Chalk. Part I. *Palaeont. Soc. Lond.*, p. 34.



NHMUK PV OR 48123

*Sardinioides pusillus*. Woodward, 1901. Type.

Upper Cretaceous: Sahel Alma, Mt. Lebanon, Syria.

Lewis Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 240, pl. XVI, fig. 2.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Beryciformes**  
**Family: Polymixiidae**



NHMUK PV P 315\_1

*Homonotus rotundus*. Woodward, 1902. Holotype.

Distorted fish.

Zone of *Holaster subglobus*: Page's Pit, Westwell, Nr. Charing, Kent.

Harris Collection, purchased Mrs. R. Jones, 1881.

1902. *The Fossil Fishes of the English Chalk. Part I. Palaeont. Soc. Lond.*, p. 28, pl. VII, fig. 8.



NHMUK PV OR 48112

*Omosoma intermedium*. Woodward, 1901. Holotype.

Nearly complete fish.

Upper Cretaceous: Sahel Alma, Mt. Lebanon, Syria.

Lewis Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 420.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Beryciformes**  
**Family: Pharmacichthyidae**



AUB104699\_104691

*Pharmacichthys venenifer*. Woodward, 1942. Holotype. *Gen. nov.*

Nearly complete fish, in counterpart.

Upper Cretaceous (Turonian): Hakel, Lebanon.

A.E Day Collection, American University of Beirut.

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) 9, p. 542, text-fig. 1, fig. a (AUB104691).



AUB101872

*Pharmacichthys venenifer*. Woodward, 1942. Paratype. *Gen. nov.*

Nearly complete fish.

Upper Cretaceous: Hakel, Lebanon.

American University of Beirut

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) 9, p. 542, pl. V, fig. 2.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Beryciformes**  
**Family: Aipichthyidae**



NHMUK PV OR 25770

*Platax nuchalis*. Woodward, 1887. Holotype.

Imperfect fish.

Chalk, probably zone of *Holaster subglobus*: Washington, Sussex.

Dixon Collection.

1887. On the so-called *Microdon nuchalis*, Dixon, from the Chalk of Sussex, a new Species of *Platax*. *Ann. Mag. Nat. Hist.* (5) **20**, 342-344.



NHMUK PV P 4743

*Aipichthys velifer*. Woodward, 1901. Holotype.

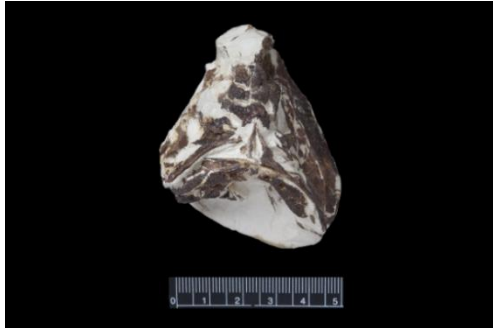
Nearly complete fish.

Upper Cretaceous: Hakel, Mt. Lebanon, Syria.

Lewis Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 427.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Beryciformes**  
**Family: Trachichthyidae**



NHMUK PV OR 49073\_2

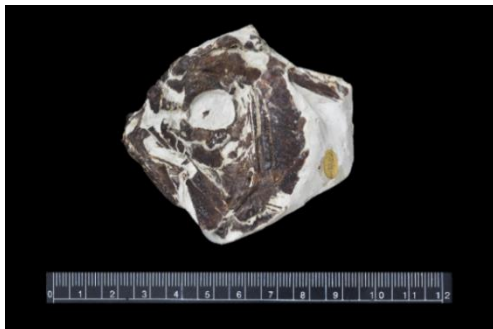
*Hoplopteryx simus*. Woodward, 1902. Holotype.

Imperfect head, anterior aspect.

Chalk: Kent.

Mrs Smith's Collection.

1902. The Fossil Fishes of the English Chalk. Part I. *Palaeont. Soc. Lond.*, p. 23, pl. VIII, fig. 3.



NHMUK PV OR 49073\_1

*Hoplopteryx simus*. Woodward, 1902. Holotype.

Imperfect head, left lateral aspect.

Chalk: Kent.

Mrs Smith's Collection.

1902. The Fossil Fishes of the English Chalk. Part I. *Palaeont. Soc. Lond.*, p. 23.

NO IMAGE

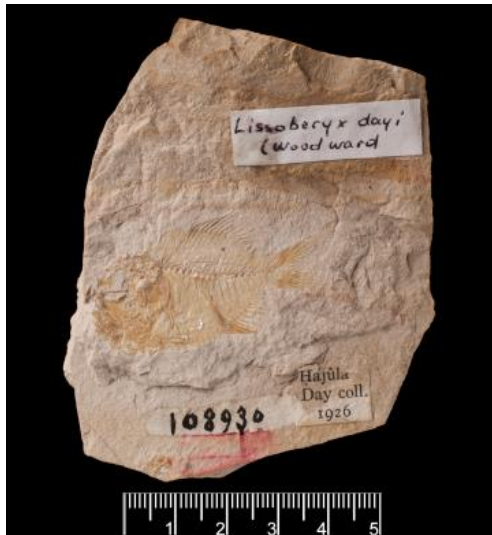
*Hoplopteryx spinulosus*. Woodward, 1942. Type.

Nearly complete fish.

Upper Cretaceous (Turonian): Sahel Alma, Lebanon.

American University of Beirut No. 102056

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) **9**, p. 538, pl. IV, fig. 1.



AUB.108930

*Acrogaster dayi*. Woodward, 1942. Holotype. *Gen. nov.*

Nearly complete fish.

Upper Cretaceous: Hajula, Lebanon.

A. E. Day Collection, American University of Beirut.

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) **9**, p. 540, pl. IV, fig. 2.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Beryciformes**

**Family: Holocentridae**



NHMUK PV P 5686

*Berycopsis (Caproberyx) major*. Woodward, 1902. Holotype.

Imperfect head and trunk.

Middle Chalk: Cuxton, Kent.

Harford Collection.

1902. The Fossil Fishes of the English Chalk. Part I. *Palaeont. Soc. Lond.*, p. 11, pl. II, fig. 2.



NHMUK PV OR 39076\_1

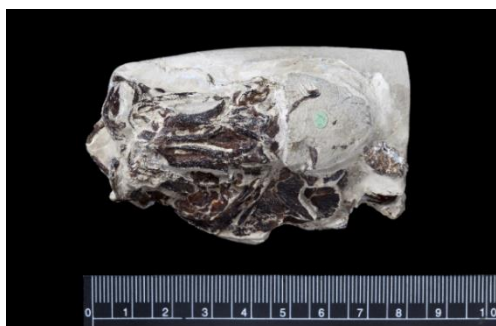
*Trachichthyoides ornatus*. Woodward, 1902. Holotype. *Gen. nov.*

Imperfect head, left lateral aspect.

Chalk: Bromley, Kent.

Bowerbank Collection.

1902. The Fossil Fishes of the English Chalk. Part I. *Palaeont. Soc. Lond.*, p. 29, pl. VIII, fig. 5.



NHMUK PV OR 39076\_2

*Trachichthyoides ornatus*. Woodward, 1902. Holotype. *Gen. nov.*

Imperfect head, upper aspect.

Chalk: Bromley, Kent.

Bowerbank Collection.

1902. The Fossil Fishes of the English Chalk. Part I. *Palaeont. Soc. Lond.*, p. 29, pl. VIII, fig. 5a.



NHMUK PV OR 39076\_3

*Trachichthyoides ornatus*. Woodward, 1902. Holotype. *Gen. nov.*

Imperfect head, lower aspect.

Chalk: Bromley, Kent.

Bowerbank Collection.

1902. The Fossil Fishes of the English Chalk. Part I. *Palaeont. Soc. Lond.*, p. 29.



NHMUK PV P 5310

*Holocentrum melitense*. Woodward, 1887. Type.

Tolerably complete fish.

Miocene: Malta.

Purchased, 1887.

1887. On a new Species of *Holocentrum* from the Miocene of Malta; with a List of Fossil Berycidae hitherto Described. *Geol. Mag.* (3) 4, 355-359.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Syngnathiformes**

**Family: Fistulariidae**



NHMUK PV OR 36877-1

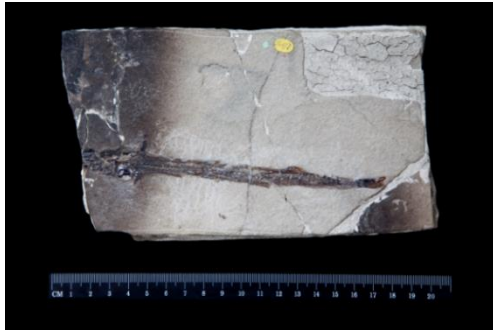
*Protaulopsis bolcensis*. Woodward, 1901. Type. *Gen. nov.*

Imperfect fish, in counterpart.

Upper Eocene: Monte Bolca, near Verona.

Purchased Mr Wright, Dec. 1862.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 371.



NHMUK PV OR 36877-2

*Protaulopsis bolcensis*. Woodward, 1901. Type. *Gen. nov.*

Imperfect fish, in counterpart.

Upper Eocene: Monte Bolca, near Verona.

Purchased Mr Wright, Dec. 1862.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 371.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Perciformes**

**Family: Stromateidae**



NHMUK PV P 45466

*Leptolepis disjectus*. Woodward, 1890. Syntype.

Operculum.

Stonesfield Slate: Stonesfield, Oxfordshire.

Egerton Collection.

1890. A Synopsis of the Fossil Fishes of the English Lower Oolites. *Proc. Geol. Assoc.* **11**, p. 295, pl. III, fig. 16.



NHMUK PV P 45467

*Leptolepis disjectus*. Woodward, 1890. Syntype.

Preoperculum.

Stonesfield Slate: Stonesfield, Oxfordshire.

Egerton Collection.

1890. A Synopsis of the Fossil Fishes of the English Lower Oolites. *Proc. Geol. Assoc.* **11**, p. 295, pl. III, fig. 17.



NHMUK PV P 45468

*Leptolepis disjectus*. Woodward, 1890. Syntype.

Maxilla.

Stonesfield Slate: Stonesfield, Oxfordshire.

Egerton Collection.

1890. A Synopsis of the Fossil Fishes of the English Lower Oolites. *Proc. Geol. Assoc.* **11**, p. 295, pl. III, fig. 18.



NHMUK PV P 45469

*Leptolepis disjectus*. Woodward, 1890. Syntype.

Dentary.

Stonesfield Slate: Stonesfield, Oxfordshire.

Egerton Collection.

1890. A Synopsis of the Fossil Fishes of the English Lower Oolites. *Proc. Geol. Assoc.* **11**, p. 295, pl. III, fig. 19.

NO IMAGE

*Leptolepis gregarius*. Woodward, 1895. Type.

Nearly complete fish with imperfect caudal fin.

Jurassic (Upper Hawkesbury-Wiannamatta Series): Talbragar, New South Wales.

Australian Museum, Sydney, Australia.

1895. The Fossil Fishes of the Talbragar Beds (Jurassic?), *Mem. Geol. Surv. N.S. Wales, Palaeont.*, **9**, p. 23, pl. IV, fig. 8.

NO IMAGE

*Leptolepis lowei*. Woodward, 1895. Type.

Jurassic (Upper Hawkesbury-Wiannamatta Series): Talbragar, New South Wales.

Mining Museum, Sydney, Australia.

1895. The Fossil Fishes of the Talbragar Beds (Jurassic?), *Mem. Geol. Surv. N.S. Wales, Palaeont.*, **9**, p. 22, pl. VI, fig. 9.

NO IMAGE

*Leptolepis talbragarensis*. Woodward, 1895. Type.

A well preserved fish exhibiting all the fins. The trunk is a little distorted, as shown by the displacement of the neural arches and vertebral rings in the abdominal region.

Jurassic (Upper Hawkesbury-Wiannamatta Series): Talbragar, New South Wales.

Mining Museum, Sydney, Australia.

1895. The Fossil Fishes of the Talbragar Beds (Jurassic?), *Mem. Geol. Surv. N.S. Wales, Palaeont.*, **9**, p. 21, pl. VI, fig. 4.



NRM PZ P.1317  
Woodward, 1900, fig. 2,  
Nybelin, 1974, Pl. XX, fig. 5)



NRM PZ P.1314  
Woodward, 1900, fig. 5,  
Nybelin, 1974, Pl. XXI, fig. 1)



NRM PZ P.7988  
Woodward, 1900, fig. 6,  
Nybelin, 1974, Pl. XXI, fig. 3)



NRM PZ P.1313 Lectotype  
Woodward, 1900, fig. 8,  
Nybelin, 1974, Pl. XX, fig. 20)



NRM PZ P.1315  
Woodward, 1900, fig. 9,  
Nybelin, 1974, Pl. XX, fig. 23)



NRM PZ P.1316  
Woodward, 1900, fig. 10,  
Nybelin, 1974, Pl. XX, fig. 13)



NRM PZ P.7987  
Woodward, 1900, fig. 11,  
Nybelin, 1974, Pl. XXI, fig. 8)

NRM PZ P.1313 Lectotype  
*Leptolepis nathorsti*. Woodward, 1900.

Detached and scattered bones.

Jurassic Swedish Foreland, King Charles Land, Spitzbergen.  
Swedish Museum of Natural History, Stockholm.

1900. Notes on Fossil Fish-remains collected in Spitzbergen by the Swedish Arctic Expedition, 1898. *Bihang. K. Svenska Vet.-Akad. Handl.* 25, Afd. IV, no. 5, p. 4, Plate, figs. 2-11.

1974. Nybelin, O., A revision of the Leptolepid Fishes, *ACTA Regiae Societatis Scientiarum et Litterarum Gothoburgensis (Zoologica)*, 9, 202pp, 30 plates.



NHMUK PV P 10440-1  
NHMUK PV P 10440



NHMUK PV P 10440-2 (Woodward, 1907, pl. 1, fig. 1).

*Leptolepis valdensis*. Woodward, 1907. Type.

Imperfect fish, well preserved, in counterpart.

Weald Clay: Southwater, Sussex.

Purchased Southwater Brick & Tile Co. Ltd., March 1907.

1907. On a New Leptolepid Fish from the Weald Clay of Southwater (Sussex). *Ann. Mag. Nat. Hist.* (7) 20, 93-95, pl. 1, fig. 1

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Perciformes**  
**Family: Percichthyidae**

NO IMAGE

*Ctenolates avus*. Woodward, 1902. Type.

Right lateral aspect of imperfect skeleton.

Freshwater Tertiary: Nimbin, Richmond River, N.S.W.

?Geological Survey, N.S.W.

1902. On *Atherstonia australis* and *Ctenolates avus*, two new species of Fossil Fishes from New South Wales. *Rec. Geol. Surv. N.S. Wales*, 7, p. 90, pl. XXIV, fig. 2.

**Group: Osteichthyes**  
**Class: Actinopterygii**

NO IMAGE

*Eoserranus hislopi*. Woodward, 1908. Type. *Gen. nov.*

Skull.

Danian Cretaceous/Upper Eocene: Lameta Beds, Dongargaon, Central Provinces, India.

?Museum of the Geological Survey of India, Calcutta.

1908. On some Fish-remains from the Lameta Beds at Dongargaon, Central Provinces. *Mem. Geol. Surv. India, Palaeont. Indica* (n.s.), 3, no. 3, p. 1, pl. I, fig. 1.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Perciformes**  
**Family: Sparidae**



NHMUK PV P 9484

*Sargus oranensis*. Woodward, 1901. Type.

Nearly complete fish.

Upper Miocene: Oran, Algeria.

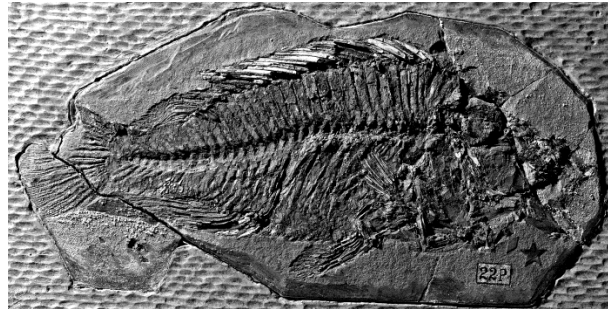
Purchased 1853.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 529.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Perciformes**  
**Family: Cichlidae**



NHMUK PV P 25258



DGM 22-P (Woodward, 1939, Pl. XVI, fig. 3.)

***Macracara prisca*. Woodward, 1939. Syntypes. *Gen. nov.***

Tertiary: Nova Iorque beds (Pliocene), left bank of the Parnaiba River, municipality of Nova Iorque, state of Maranhão, Brazil.

NHMUK PV P 25258 - Presented by the Director General, Geological and Mineralogical Service of Brazil, through Sir Arthur Smith Woodward, May 1939.

DGM 33 – Departamento de Geologia e Mineralogia, Serviço Geológica Nacional do Brasil – old acronym for palaeontological collections currently held by CPRM – Companhia de Pesquisa de Recursos Minerais, Rio de Janeiro.

1939. Tertiary Fossil Fishes from the Maranhão, Brazil. *Ann. Mag. Nat. Hist.* (11) 3, p. 451.

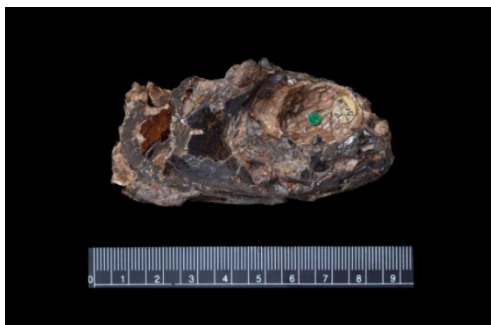
See also Brito & Richter 2016.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Perciformes**

**Family: Scombridae**



NHMUK PV P 4148\_1

***Scombrinus nuchalis*. Woodward, 1901. Holotype. *Gen. nov.***

Imperfect head, right lateral aspect.

London Clay: Sheppey.

Enniskillen Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 461.



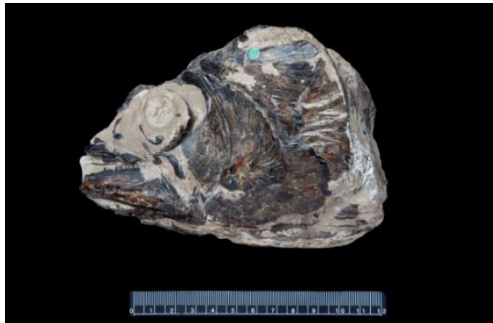
NHMUK PV P 4148\_2

*Scombrinus nuchalis*. Woodward, 1901. Holotype. *Gen. nov.*  
Imperfect head, left lateral aspect.

London Clay: Sheppey.

Enniskillen Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 461.



NHMUK PV P 623a\_1

*Eocoelopoma colei*. Woodward, 1901. Holotype. *Gen. nov.*  
Imperfect head, left lateral aspect.

London Clay: Sheppey, Kent.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 470.



NHMUK PV P 623a\_2

*Eocoelopoma colei*. Woodward, 1901. Holotype. *Gen. nov.*  
Imperfect head, dorsal/right lateral aspect.

London Clay: Sheppey, Kent.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 470.



NHMUK PV P 623

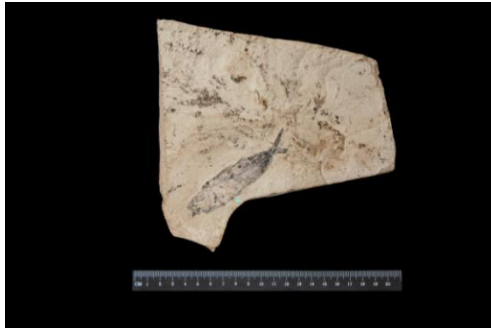
*Eothyunnus salmoneus*. Woodward, 1901. Type. *Gen. nov.*

Very imperfect cranium.

London Clay: Sheppey.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 457.



NHMUK PV P 7130

*Isurichthys orientalis*. Woodward, 1901. Type. *Gen. nov.*

Nearly complete fish.

Tertiary: Shushtar, Persia.

Presented by Alfred Holland Esq., 1894.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 453.

**Group: Osteichthyes**  
**Class: Actinopterygii**  
**Order: Perciformes**  
**Family: Xiphidae**



NHMUK PV P 627

*Acestrus ornatus*. Woodward, 1901. Holotype. *Gen. nov.*

Abraded fragment of hinder part of cranium.

London Clay: Sheppey, Kent.

Egerton Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 494.



NHMUK PV OR 25744

*Histiophorus eocaenicus*. Woodward, 1901. Holotype.

Rostrum, vertically crushed in the anterior half.

Eocene: Bracklesham, Sussex.

Dixon Collection.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 495, text fig. 18, no. 2.



NHMUK PV P 8799

*Histiophorus rotundus*. Woodward, 1901. Type.

Rostrum.

Cooper River, Charleston, South Carolina.

Presented by Thomas Royle, Esq., 1898.

1901. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part IV, p. 495, text fig. 18, no. 3.

**Group: Osteichthyes**

**Class: Actinopterygii**

**Order: Gadiformes**

**Family: Macrouridae**



NHMUK PV OR 893&4&5

*Coelorhynchus gigas*. Woodward, 1888. Type.

Partial spine in three (four) fragments.

Extracted from the rock of the Great Sphinx, Egypt.

Presented by Col. Howard Vyse, 1838.

1888. On the Fossil Fish-spines named *Coelorhynchus*, Agassiz. *Ann. Mag. Nat. Hist.* (6) 2, p. 224.

NO IMAGE

*Coelorhynchus libanicus*. Woodward, 1942. Type.

Rostrum.

Upper Cretaceous (Turonian): Hajula, Lebanon.

American University of Beirut No. 108966.

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) 9, p. 552, pl. VI, fig. 2.

**Group: Osteichthyes**  
**Class: Sarcopterygii**  
**Order: Dipnoi**  
**Family: Sagenodontidae**

NO IMAGE

*Sagenodus laticeps*. Woodward, 1908. Type.

Imperfect skeleton.

Wianamatta Shales, Triassic Hawkesbury Series: St. Peters, Sydney, NSW.

?Geological Survey, NSW.

1908. The Fossil Fishes of the Hawkesbury Series at St. Peter's; with Note by W. S. DUN. *Mem. Geol. Surv. N.S. Wales, Palaeont.*, **10**, p. 7, pl. II, figs. 1, 1a.

**Group: Osteichthyes**  
**Class: Sarcopterygii**  
**Order: Dipnoi**  
**Family: Ctenodontidae**

NO IMAGE

*Ctenodus breviceps*. Woodward, 1906. Type.

Hinder part of cranial roof.

Carboniferous: Mansfield, Victoria, Australia

National Museum, Melbourne, Australia.

1906. On a Carboniferous Fish Fauna from the Mansfield District, Victoria. *Mem. Nat. Mus. Melbourne*, no. 1, p. 15, text fig. 3.

**Group: Osteichthyes**  
**Class: Sarcopterygii**  
**Order: Dipnoi**  
**Family: Ceratodontidae**

NO IMAGE

*Gosfordia truncata*. Woodward, 1890. Syntype.

The greater portion of the trunk to the tip of the tail.

Lower Triassic: Gosford, NSW, Australia

Australian Museum, Sydney, Australia

1890. The Fossil Fishes of the Hawkesbury Series at Gosford. *Mem. Geol. Surv. N.S. Wales, Palaeont.*, **4**, p. 5, pl. II, fig. 1.



NHMUK PV P 4807

*Ceratodus capensis*. Woodward, 1889. Holotype.

Imperfect tooth.

Upper Karoo Formation (Stormberg Beds): Orange Free State, South Africa.

By exchange, 1884.

1889. Note on a Tooth of *Ceratodus*, from the Stormberg Beds of the Orange Free State, South Africa. *Ann. Mag. Nat. Hist.* (6) 4, 243, pl. XIV, fig. 4a.

NO IMAGE

*Ceratodus avus*. Woodward, 1906. Type.

Left splenial with lower tooth.

Lower Jurassic: Cape Patterson, Victoria, Australia.

?Collection of Prof. J.W. Gregory, F.R.S.

1906. On a Tooth of *Ceratodus* and a Dinosaurian Claw from the Lower Jurassic of Victoria, Australia. *Ann. Mag. Nat. Hist.* (7) 18, p. 2, pl. I, fig. 1.

**Group: Osteichthyes**

**Class: Sarcopterygii**

**Order: Crossopterygii**

**Family: Laugiidae**



NHMUK PV P 3343

*Undina(?) barroviensis*. Woodward, 1890. Holotype.

Fish wanting paired fins, in counterpart.

Lower Lias: Barrow-on-Soar, Leicestershire.

Enniskillen Collection.

1890. Notes on some Ganoid Fishes from the English Lower Lias. *Ann. Mag. Nat. Hist.* (6) 5, p. 435, pl. XVI, fig. 5.



NHMUK PV OR 21335

*Undina(?) barroviensis*. Woodward, 1890. Holotype.

Fish wanting paired fins, in counterpart.

Lower Lias: Barrow-on-Soar, Leicestershire.

Purchased Mr Lee, 1847.

1890. Notes on some Ganoid Fishes from the English Lower Lias. *Ann. Mag. Nat. Hist.* (6) 5, p. 435.



NHMUK PV P 11925\_1

*Undina purbeckensis*. Woodward, 1916. Type.

Imperfect fish.

Middle Purbeck Beds: Swanage, Dorset.

Presented by Geological Society, 1911.

1916. The Fossil Fishes of the English Wealden and Purbeck Formations. Part I. *Palaeont. Soc. Lond.*, p. 22, pl. IV, fig. 1.

**Group: Osteichthyes**

**Class: Sarcopterygii**

**Order: Crossopterygii**

**Family: Coelacanthidae**

NO IMAGE

*Coelacanthus guttatus*. Woodward, 1912. Type.

Imperfect fragmentary fish.

Lower Trias: Sassen Bay, Spitzbergen.

?Royal State Museum, Stockholm.

1912. Notes on some Fish-remains from the Lower Trias of Spitzbergen. *Bull. Geol. Inst. Univ. Upsala*, XI, p. 291, pl. XIV, figs 1, 1a, 1b.



NHMUK PV P 10768-2

*Coelacanthus madagascariensis*. Woodward, 1910. Holotype.

Nearly complete fish in nodule, in counterpart.

Permo-Carboniferous shaley formation: Right bank of the Mahavavy River, opposite the village of Andogozo, near the extreme north-west coast of Madagascar.

Presented by Mr George G. Dixon.

1910. On some Permo-Carboniferous Fishes from Madagascar. *Ann. Mag. Nat. Hist.* (8) 5, p. 5, pl. 1, fig. 5.



NHMUK PV P 10768-1

*Coelacanthus madagascariensis*. Woodward, 1910. Holotype.

Nearly complete fish in nodule, in counterpart.

Permo-Carboniferous shaley formation: Right bank of the Mahavavy River, opposite the village of Andogozo, near the extreme north-west coast of Madagascar.

Presented by Mr George G. Dixon.

1910. On some Permo-Carboniferous Fishes from Madagascar. *Ann. Mag. Nat. Hist.* (8) 5, p. 5.

NO IMAGE

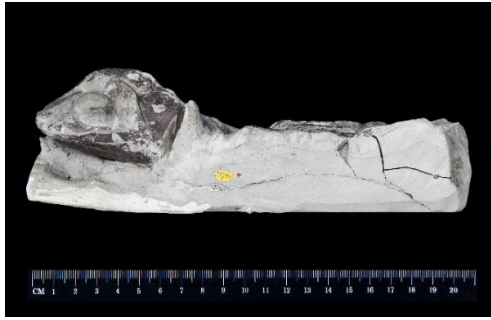
*Macropomoides orientalis*. Woodward, 1942. Type.

Portion of the back showing the two dorsal fins and some scales.

Upper Cretaceous (Turonian): Hajula, Lebanon.

American University of Beirut No. 108935.

1942. Some new and little-known Upper Cretaceous Fishes from Mount Lebanon. *Ann. Mag. Nat. Hist.* (11) 9, p. 560, text-fig. 4.



NHMUK PV OR 35700\_1

*Macropoma precursor*. Woodward, 1909. Type.  
Imperfect head etc., left side view.

Grey Chalk, Zone of *Schloenbachia varians*: Folkestone, Kent.

Purchased of William Griffith, 1859.

1909. The Fossil Fishes of the English Chalk. Part V. *Palaeont. Soc. Lond.*, p. 181, pl. XXXVIII, fig. 8.



NHMUK PV OR 35700\_2

*Macropoma precursor*. Woodward, 1909. Type.  
Imperfect head etc., upper view of cranial roof.

Grey Chalk, Zone of *Schloenbachia varians*: Folkestone, Kent.

Purchased of William Griffith, 1859.

1909. The Fossil Fishes of the English Chalk. Part V. *Palaeont. Soc. Lond.*, p. 181, pl. XXXVIII, fig. 8a.



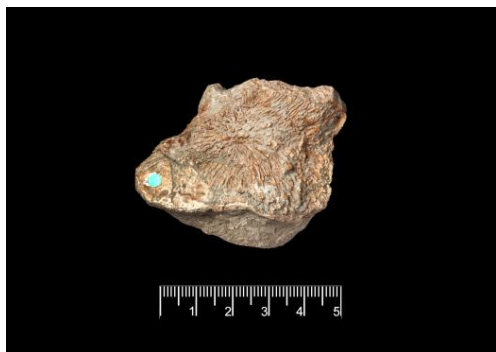
NHMUK PV OR 35700\_3

*Macropoma precursor*. Woodward, 1909. Type.  
Imperfect head etc., tubercular ornament of operculum.

Grey Chalk, Zone of *Schloenbachia varians*: Folkestone, Kent.

Purchased of William Griffith, 1859.

1909. The Fossil Fishes of the English Chalk. Part V. *Palaeont. Soc. Lond.*, p. 181, fig. 8b.



NHMUK PV P 10355-4\_1

*Mawsonia gigas*. Woodward, 1907. Part of holotype. *Gen. nov.*

Left articular, outer aspect.

Cretaceous: Plataforma, Bahia, Brazil.

Presented by Joseph Mawson Esq., F.G.S., Dec. 1906.

1907. (With J. MAWSON.) On the Cretaceous Formation of Bahia (Brazil), and on the Vertebrate Fossils contained therein. *Quart. J. Geol. Soc.* **63**, p. 134, pl. VIII, fig. 1a.



NHMUK PV P 10355-4\_2

*Mawsonia gigas*. Woodward, 1907. Part of holotype. *Gen. nov.*

Left articular, condylar aspect.

Cretaceous: Plataforma, Bahia, Brazil.

Presented by Joseph Mawson Esq., F.G.S., Dec. 1906.

1907. (With J. MAWSON.) On the Cretaceous Formation of Bahia (Brazil), and on the Vertebrate Fossils contained therein. *Quart. J. Geol. Soc.* **63**, p. 134, pl. VIII, fig. 1b.



NHMUK PV P 10355-2\_1

*Mawsonia gigas*. Woodward, 1907. Part of holotype. *Gen. nov.*

Gular plate.

Cretaceous: Plataforma, Bahia, Brazil.

Presented by Joseph Mawson Esq., F.G.S., Dec. 1906.

1907. (With J. MAWSON.) On the Cretaceous Formation of Bahia (Brazil), and on the Vertebrate Fossils contained therein. *Quart. J. Geol. Soc.* **63**, p. 134, pl. VIII, fig. 5.



NHMUK PV P 10355-1\_1

*Mawsonia gigas*. Woodward, 1907. Part of holotype. *Gen. nov.*

Left coronoid.

Cretaceous: Plataforma, Bahia, Brazil.

Presented by Joseph Mawson Esq., F.G.S., Dec. 1906.

1907. (With J. MAWSON.) On the Cretaceous Formation of Bahia (Brazil), and on the Vertebrate Fossils contained therein. *Quart. J. Geol. Soc.* **63**, p. 134, pl. VIII, fig. 3.



NHMUK PV P 10355-3\_1

*Mawsonia gigas*. Woodward, 1907. Holotype. *Gen. nov.*

Remains of skull and mandible.

Cretaceous: Plataforma, Bahia, Brazil.

Presented by Joseph Mawson Esq., F.G.S., Dec. 1906.

1907. (With J. MAWSON.) On the Cretaceous Formation of Bahia (Brazil), and on the Vertebrate Fossils contained therein. *Quart. J. Geol. Soc.* **63**, p. 134, pl. VII, fig. 1.



NHMUK PV P 10356

*Mawsonia gigas*. Woodward, 1907. Type.

Right parietal, outer aspect.

Cretaceous: Plataforma, Bahia, Brazil.

Presented by Joseph Mawson Esq., F.G.S., Dec. 1906.

1907. (With J. MAWSON.) On the Cretaceous Formation of Bahia (Brazil), and on the Vertebrate Fossils contained therein. *Quart. J. Geol. Soc.* **63**, p. 134, pl. VII, fig. 4a.



NHMUK PV P 10357

*Mawsonia gigas*. Woodward, 1907. Type.

Portion of right operculum, outer aspect.

Cretaceous: Plataforma, Bahia, Brazil.

Presented by Joseph Mawson Esq., F.G.S., Dec. 1906.

1907. (With J. MAWSON.) On the Cretaceous Formation of Bahia (Brazil), and on the Vertebrate Fossils contained therein. *Quart. J. Geol. Soc.* **63**, p. 134, pl. VIII, fig. 6.



NHMUK PV P 10567-1

*Mawsonia minor*. Woodward, 1908. Holotype.

Tail and anal fin, in counterpart.

Lower Cretaceous: Ilhéos, State of Bahia (Brazil).

Presented by Professor Ennes de Souza.

1908. On some Fossil Fishes discovered by Professor Ennes de Souza in the Cretaceous Formation at Ilhéos, State of Bahia (Brazil). *Quart. J. Geol. Soc.* **64**, p. 358, pl. XLII, fig. 1.



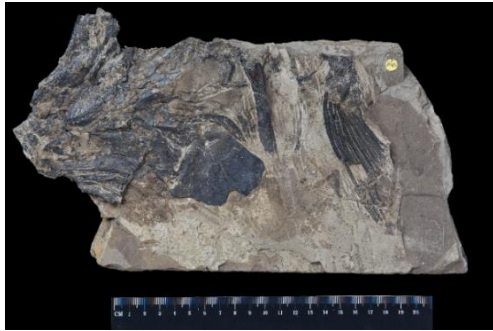
NHMUK PV P 10567-2

*Mawsonia minor* (counterpart). Woodward, 1908. Holotype.

Lower Cretaceous: Ilhéos, State of Bahia (Brazil).

Presented by Professor Ennes de Souza.

1908. On some Fossil Fishes discovered by Professor Ennes de Souza in the Cretaceous Formation at Ilhéos, State of Bahia (Brazil). *Quart. J. Geol. Soc.* **64**, p. 358.



NHMUK PV P 10568

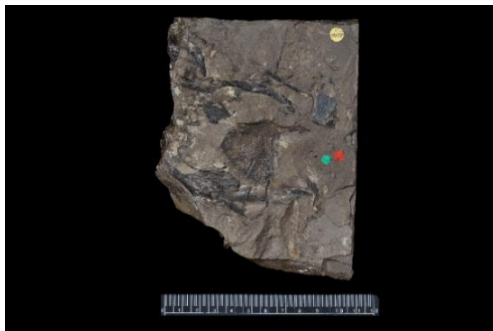
*Mawsonia minor*. Woodward, 1908. Holotype.

Anterior dorsal fin.

Lower Cretaceous: Ilhéos, State of Bahia (Brazil).

Presented by Professor Ennes de Souza.

1908. On some Fossil Fishes discovered by Professor Ennes de Souza in the Cretaceous Formation at Ilhéos, State of Bahia (Brazil). *Quart. J. Geol. Soc.* **64**, p. 358, pl. XLII, fig. 1, d<sup>1</sup>.



NHMUK PV P 10569

*Mawsonia minor*. Woodward, 1908. Holotype.

Greater part of the right angular bone of the mandible and left operculum.

Lower Cretaceous: Ilhéos, State of Bahia (Brazil).

Presented by Professor Ennes de Souza.

1908. On some Fossil Fishes discovered by Professor Ennes de Souza in the Cretaceous Formation at Ilhéos, State of Bahia (Brazil). *Quart. J. Geol. Soc.* **64**, p. 358, pl. XLII, figs. 2, 3.

**Group: Osteichthyes**  
**Class: Sarcopterygii**  
**Order: Crossopterygii**  
**Family: Onychodontidae**



OUM C 30558

<http://www.3d-fossils.ac.uk/fossilType.cfm?typSampleId=15000164>

*Onychodus anglicus*. Woodward, 1888. Holotype.

Intermandibular arch, or Presymphysial bone.

Lower Old Red Sandstone Passage Beds: Ledbury, Herefordshire

Pridoli Epoch (Silurian Period) (416 – 418.7 Ma B.P.)

Oxford University Museum of Natural History, Grindrod Collection.

1888. Note on the Occurrence of a Species of *Onychodus* in the Lower Old Red Sandstone Passage Beds of Ledbury, Herefordshire. *Geol. Mag.* (3) 5, 500-501, 1 text fig.



NRM PZ P.1284

*Onychodus arcticus*. Woodward, 1889. Type.

Four fractured teeth, attached in close series to a narrow arched base.

Devonian: Ironstone, Mimers Valley, Spitzbergen.

Swedish Museum of Natural History, Stockholm.

1889. On the Occurrence of the Devonian Ganoid *Onychodus* in Spitzbergen. *Geol. Mag.* (3) 6, 499-500.

1889. On the Occurrence of the Devonian Ganoid *Onychodus* in Spitzbergen. *Rep. Brit Ass.* p. 585.

1891. The Devonian Fish-fauna of Spitzbergen. *Ann. Mag. Nat. Hist.* (6) 8, p. 14, pl. II, fig. 12.

**Group: Osteichthyes**  
**Class: Sarcopterygii**  
**Order: Crossopterygii**  
**Family: Holoptychiidae**



NRM PZ P.7804

*Holoptychius monilifer*. Woodward, 1900. Holotype.

Impression of outer face of imperfect scale.

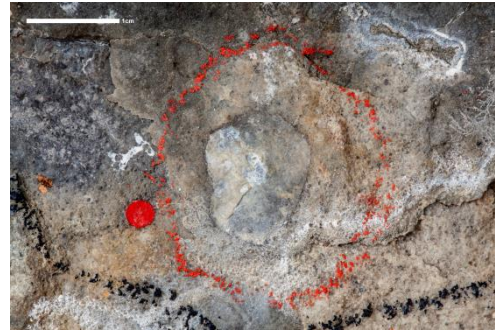
Upper Devonian: Bear Island, Spitzbergen.

Swedish Museum of Natural History, Stockholm.

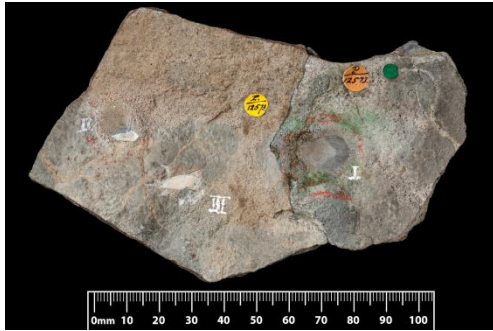
1900. Notes on Fossil Fish-remains collected in Spitzbergen by the Swedish Arctic Expedition, 1898. *Bihang. K. Svenska Vet.-Akad. Handl.* 25, Afd. IV, no. 5, p. 3, Plate, fig. 1.



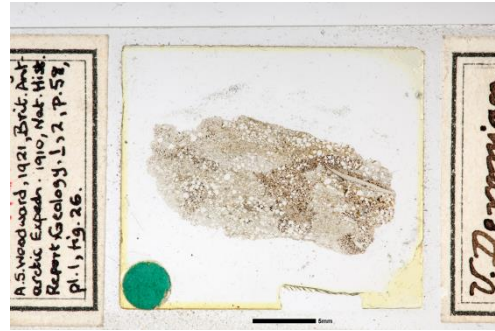
NHMUK PV P 12573a-1 Lectotype (part)



NHMUK PV P 12573a-2 (Woodward 1921, fig. 25)



NHMUK PV P 12573 Lectotype (counterpart)(White 1968, text fig. 14)



NHMUK PV P 12574 (Woodward 1921, fig. 26)

*Nomen nudum* Young et al 1992.

*Holoptychius antarcticus*. Woodward, 1921.

*Gyroptychius ? antarcticus*. (Woodward), White 1968.

Scale.

Upper Devonian: Granite Harbour, Antarctica.

Terra Nova Collection.

1921. Fish-remains from the Upper Old Red Sandstone of Granite Harbour, Antarctica. British Museum (Natural History), London, *Brit. Antarctic ('Terra Nova') Exped. 1910, Nat. Hist. Rep. Geol.* **1**, no. 2, p. 58, pl. 1, figs. 25, 26.

White, E. I. 1968. Devonian Fishes of the Mawson-Mulock Area, Victoria Land, Antarctica. Trans-Antarctica Expedition Committee, *Trans-Antarctica Expedition 1955-1958, Scientific Reports*, **16**, Geology, p. 22, text fig. 14.

Young, G. C., Long, J. A. & Ritchie, A. 1992. Crossopterygian fishes of the Devonian of Antarctica: systematics, relationships and biogeographic significance. *Records of the Australian Museum, Supplement* **14**, p. 28.

**Group: Osteichthyes**  
**Class: Sarcopterygii**  
**Order: Crossopterygii**  
**Family: Osteolepidae**



NHMUK PV OR 37320-1

*Megalichthys intermedius*. Woodward, 1891. Type.

Portions of head.

Coal Measures: Airdrie, Lanarkshire.

Purchased from Mr. J. Russel, July 1<sup>st</sup> 1863.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II. p. 384.



NHMUK PV OR 37320-2

*Megalichthys intermedius*. Woodward, 1891. Type.

Portions of head.

Coal Measures: Airdrie, Lanarkshire.

Purchased from Mr. J. Russel, July 1<sup>st</sup> 1863.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II. p. 384.



NHMUK PV OR 37321

*Megalichthys intermedius*. Woodward, 1891. Type.

Pair of jugular plates and portions of jaws.

Coal Measures: Airdrie, Lanarkshire.

Purchased from Mr. J. Russel, July 1<sup>st</sup> 1863.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II. p. 384.

**Group: Osteichthyes**

**Class: Sarcopterygii**

**Order: Crossopterygii**

**Family: Rhizodontidae**

NO IMAGE

*Strepsodus decipiens*. Woodward, 1906. Type.

Scales.

Carboniferous: Mansfield, Victoria, Australia

National Museum, Melbourne, Australia.

1906. On a Carboniferous Fish Fauna from the Mansfield District, Victoria. *Mem. Nat. Mus. Melbourne*, no. 1, p. 17.



NHMUK PV P 200

*Sauripterus anglicus*. Woodward, 1891. Holotype.

Scales and tooth.

Upper Old Red Sandstone: Farlow, Shropshire.

Purchased Weaver-Jones, Oct. 1880.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II, p. 366, pl. XVI, figs. 4,6.



NHMUK PV P 4587

*Rhizodopsis robusta*. Woodward, 1891. Type.

Scale.

Coal Measures: Volpersdorf, Glatz, Silesia.

Enniskillen Collection.

1891. *Catalogue of the Fossil Fishes in the British Museum (Natural History)*, Part II, p. 357, pl. XVI, fig. 3.

## **Appendix A** Countries

The following is a list of the countries from where Smith Woodward described new fossil fishes.

Algeria (Oran)  
Antarctica  
Argentina (Santa Cruz)  
Australia (New South Wales, Queensland, Victoria)  
Austria (Carinthia)  
Belgium  
Brazil (Bahia, Maranhão, Pernambuco, São Paulo)  
Canada (Quebec, New Brunswick)  
China (Shandong Province)  
Egypt (Cairo)  
France (Ain, Marne)  
Germany (Bavaria, Rhenish Prussia, Württemberg)  
Greenland  
India (Dongargaon, Srinagar, Warora)  
Indonesia (Sumatra)  
Iran (Shushtar, capital of Khuzestan Province)  
Ireland, Republic of  
Italy (Tuscany, Verona)  
Lebanon  
Madagascar (Andogozo)  
Malta  
New Zealand  
Norway (Spitzbergen)  
Russia (Siberia)  
South Africa (Cape Colony, Cape Province, Orange Free State)  
Sweden (South Scania)  
Turkey (Sea of Marmora)  
USA (South Carolina)  
Zimbabwe (formerly Southern Rhodesia)

## **Appendix B** Collections, Collectors and Dealers

The majority of the Natural History Museum collection of fossil fishes (and many of the important type specimens) has been acquired from amateur collectors either by purchase or donation. Such collectors remain a very important source of new acquisitions. Many of the collectors and their collections up to the year 1900 are described in Woodward 1904. Those in the following list included in this publication are marked with an asterisk and a double asterisk if details have already been mentioned in the chapter on the fossil fish collection (Smith 2015). Details of some collections are given in Smith Woodward's Catalogue of Fossil Fishes (Woodward 1889; 1891; 1895; 1901); these are marked with a dagger, †. Much useful information regarding collections is also contained in the World Palaeontological Collections book (Cleevely 1983). Details of those marked with a double dagger, ‡, can be found in this publication.

**Andrews**, Reverend W. R. Andrews.

\***Atherstone**, The Hon. William Guybon (1813-1898)

Atherstone was a resident at Grahamstown, Cape Colony. He presented the type specimen of *Atherstonia scutata* to the Museum in 1884.

**Barnes**, F. J.

Barnes headed a company quarrying the famous Portland stone on the Isle of Portland.

\*\***Baugh Collection** - Thomas Baugh.

†**Bayfield Collection**

"Fossil fishes and reptiles, chiefly from the Upper Chalk of Norfolk, purchased from Mr. T. G. Bayfield, of Norwich, 1878." (Woodward 1889).

\***Beckles Collection** - Samuel Husband Beckles (-1890).

His Wealden and general collection, comprising about 500 vertebrata and 2000 invertebrata, was purchased in 1891.

\*\***Bowerbank Collection** - James Scott Bowerbank (1797-1877).

\***Brodie Collection** - Peter Bellinger Brodie (1815-1897).

Collected at various locations where he was employed by the church e.g. the Upper Silurian of Herefordshire and the Jurassic rocks of Northamptonshire and Leicestershire. His collection of over 25,000 fossils included many valuable type specimens and an extensive selection was purchased in 1895.

‡**Butler**, Francis H. (1849-1935).

"Mineral and fossil dealer; science lecturer; assistant editor, Encyclopaedia Britannica. Became a dealer through his responsibility as an executor." (Cleevely 1983).

†**Byne Collection** - Mr. Byne.

"Miscellaneous fossils from the Jurassic of Gloucestershire, purchased from Mr. Byne, before 1845." (Woodward 1889).

\*\***Capron Collection** - J. Rand Capron.

\***Charlesworth**, Edward.

Sold many fossils to the Museum, 1875.

\***Clifton, George**.

"Presented a collection of British fossils, including fish-remains from the Portland Stone (*Caturus cliftoni*, &c.), 1889." (Woodward 1904).

**Crawley**, Cecil.

\***Crofton**, Addison.

"Presented Mollusca from the Carboniferous Limestone of Yorkshire, 1898." (Woodward 1904).

\***Damon**, Robert (1814-1899).

This well-known Weymouth dealer in natural history specimens made a private collection that was purchased in 1890.

‡**Damon**, Robert Ferris (1845-1925).

Weymouth dealer in fossils, shells and minerals. His stock of natural history material sold at auction between 1909-10.

‡**Davis**, Arthur George (1892-1957).

"Palaeontologist, naturalist and bibliophile; noted for his contribution to our knowledge of the British Lower Tertiaries, particularly the micro-fossils." (Cleevely 1983).

‡**Day Collection** - Alfred Ely Day.

Professor of Geology, American University of Beirut.

‡**Dibley Collection** - George E. Dibley, F.G.S. (1857-1943).

Teacher.

**Dixon**, George G.

\*\***Dixon Collection** - Frederic Dixon (1799-1849).

‡**Doran**, Patrick? (?1784-1880).

Mineral and fossil collector and dealer of Glassdrummond, Co. Down.

\***Edwards Collection** - Frederick Erasmus Edwards (1799-1875)

Edwards was a member of the London Clay Club and a founder of the Palaeontographical Society. The bulk of his collection was purchased in 1872-1873.

\*\***Egerton Collection** - Sir Philip Malpas de Grey Egerton (1806-1881).

\*\***Enniskillen Collection** - William Willoughby Cole, Third Earl of Enniskillen (1807-1886).

\***Exton**, Hugh.

"Presented fossil Fishes from the Stormberg Beds of South Africa, namely, *Semionotus capensis* in 1883, and *Cleithrolepis extoni* in 1888... ". (Woodward 1904).

‡**Finlay**, T. M.

Edinburgh University.

\***Fox Collection** - Rev. William Darwin Fox (-1882).

"Fox collected from the Wealden cliffs ... of the Isle of Wight in the neighbourhood of Brixton, where he lived." ... His collection was purchased in 1882. (Woodward 1904).

\*\***Gardner Collection** - John Starkie Gardner (1845-1930).

‡**Garwood**, Edmund Johnston, FGS (1864-1949).

Professor of Geology and Mineralogy, University College, London. President of the Geological Society of London(1930-32).

\***Gollmer**, C. H. V.

Collected in the Lebanon, purchased 1896.

\***Gordon**, John.

"Presented fossil Fishes from the Lignite of Taubat , San Paulo, Brazil, 1900."  
(Woodward 1904).

\***Gregory**, John Walter

Dr. Gregory made an important collection of fossils in Spitzbergen,  
donated in 1896.

**Griffith**, William.

Fossil collector from Folkestone, Kent.

\*\***H berlein Collection** - Karl H berlein.

\***Harford Collection** - Frederick Harford.

"For many years, Harford relieved the tedium of a city life by the preparation of Chalk fossils. His specimens were collected chiefly by Joseph Wood in the neighbourhood of Cuxton and Burham, Kent. ... Besides the beautifully-prepared Chalk fossils, especially fishes, Harford accumulated a few specimens from other formations, some of them valuable. The greater part of the collection, numbering 1108 specimens, was purchased from him in 1888. In the same year he presented to the Museum the type-specimen of *Thrissops portlandicus*, A. S. Woodw., from the Portland Stone ..." (Woodward 1904).

\***Harris Collection** - William Harris (1797-1877).

"A selection of about 240 specimens from the collection left at his death was purchased by the Museum from his daughter in 1881. It comprised ... various fish-remains ..." (Woodward 1904).

‡**Hislop**, Reverend Stephen (1817-1864).

**Holland**, Alfred.

‡**Hooley**, Reginald Walter F.G.S (1865-1923).

Honorary Curator of Winchester Museum.

\***Houzeau Collection** - Houzeau de Lehaie (A.)

"Presented Upper Cretaceous and Eocene fish-teeth from Belgium, 1889."  
" (Woodward 1904).

‡**Hovenden**, Frederick, F.G.S, F.L.S (*fl.* 1864-1907).

Lived at Dulwich c. 1885.

\***Jesson Collection** - Thomas Jesson.

"Mr. Jesson began his collection at Cambridge, when he obtained a fine series of fossils from the Cambridge Greensand... 2709 fossils from the Cambridge Greensand were purchased from him in 1891, 1892, and 1894 respectively." (Woodward 1904).

\*\***Weaver Jones Collection** - W. Weaver Jones.

**King**, William Wickham (1862-1959).

Stourbridge solicitor, amateur geologist and F. G. S., wrote on the Old Red Sandstone of Shropshire in particular.

\***Krantz**, A. and F.

Numerous purchases have been made, especially of Continental fossils, from these dealers.

**\*Leeds Collection** - Alfred Nicholson and Charles E. Leeds.

The Leeds brothers were assiduous collectors of fossil reptiles and fishes from the Oxford Clay pits near Peterborough. Their first collection was purchased in instalments in 1890, 1891, 1892 and 1893. The Leeds collection "comprises many type and unique specimens ... [including] fishes..." (Woodward 1904).

**\*\*Lewis Collection** - Reverend Professor E. R. Lewis.

**\*\*Mantell Collection** - Gideon Algernon Mantell (1790-1852).

**\*‡Marsham** - Hon. Robert Marsham-Townsend (1834-1915).

"Presented a valuable collection of British fossils and some Cretaceous Fishes from Brazil, 1877." (Woodward 1904).

**\*Mawson, Joseph.**

"While occupied with the construction of railways in Bahia, Brazil, Mr. Mawson has made a valuable collection of Cretaceous Reptilia, Pisces, and Mollusca from that region. It has been presented by him to the Museum in several small instalments from 1881 onwards, and comprises the type-specimens of *Lepidotus mawsoni*, *Megalurus mawsoni*, and *Acrodus nitidus*, ..." (Woodward 1904).

**‡Molyneux, Arthur John Charles F.G.S.** (d. 28 Dec. 1920).

Mining engineer who discovered chalcedonized fossils in Kalahari Desert.

**\*Owen, Sir Richard.**

"Many specimens given personally to Sir Richard Owen were presented by him to the Museum." (Woodward 1904).

**Penny, E.**

**\*Penton, R. H.**

"Presented dentition of *Myliobatis pentoni* from Eocene near Cairo, 1893." (Woodward 1904).

**‡Roberts, George E. F.G.S** (1831-1865).

**‡Rubidge Collection** - Richard Nathaniel Rubidge (1821-1869).

South African doctor interested in geology, particularly metamorphism.

**Russel, J.**

**\*Seeley, Harry Govier.**

Smith Woodward's father-in-law (see Shindler & Smith 2015; Smith & Shindler 2015).

**Short, J. J. R.**

**\*Simmons, Jeremiah.**

"An expert collector of Chalk fossils, from whom many specimens were purchased." (Woodward 1904).

**\*\*Mrs. Smith's Collection** - Mrs. M. H. Smith.

**Smith, R. J.**

**\*\*Toulmin Smith Collection** - Joshua Toulmin Smith (1816-1869).

**Souza**, Professor Ennes de Souza.

‡**Stebbing**, W. P. D., F.G.S.

\***Sweet**, George.

“Discovered and presented a specimen of *Belonostomus sweeti* from the Cretaceous of Queensland, 1895.” (Woodward 1904).

\*\***Taylor Collection** - Henry William Taylor (-1843).

‡**Teilhard de Chardin**, Marie Joseph Pierre (1881-1955).

French Jesuit philosopher, biologist and palaeontologist, who was restricted by the supervision of his Catholic superiors in Rome and prevented from publishing between 1923-51, this eventually caused him to emigrate to North America.

\***Tennant**, James.

“A lecturer on Geology and Mineralogy and a dealer from whom many specimens were purchased. An extensive selection from his private collection of English fossils was purchased ... in 1881-82.” (Woodward 1904).

\***Verbeek**, R. D. M.

“Presented fossil Fishes from Tertiary Lignite at Padang, Sumatra, 1876.” (Woodward 1904).

**Vyse**, Colonel Howard.

\***Ward**, John.

“Resident at Longton, Staffordshire, Mr. Ward has been occupied for forty years in collecting the fossils, especially fishes ... of the North Staffordshire Coalfield. ... A set of 1072 selected fossils, comprising many type-specimens and other specimens described by Egerton, John Young, and Traquair, was purchased ... in 1894.” (Woodward 1904).

\*\***Wetherell Collection** - Nathaniel Thomas Wetherell (1800-1875).

\***Wright**, Bryce M.

“Many fossils were purchased from this dealer, ... 1873.” (Woodward 1904).

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