

# Ichthyosauromorph Taxonomy

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Version 0.6.1710.20210310

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## Introduction

This document presents a list of valid ichthyosauromorph species. It is a constant work in progress given the pace at which new ichthyosaur research happens. Perhaps not as rapidly as some other fossil groups, but certainly fast enough to require some attention.

It’s also intended to give some handle on the vast literature available for ichthyosaurs and their near relatives by means of synonymy lists. I’ve chosen this format for it’s familiarity, but also because I rather enjoy the process and trials to building a complete yet usable synonymy list.

I’ve used this also as an exercise in typography – like much of my more public output. This document is typeset in Lua<sup>A</sup>TeX using typefaces with various nice features – old style figures, small capitals, optical sizes. The fonts used are nonetheless open source, courtesy of their development at Adobe.

### Layout of synonymy lists

The synonymy lists are presented as unruled tables:

Example

Cartorhynchus lenticarpus Motani et al., 2015			
URN:LSID:ZOOBANK.ORG:ACT:FCCC9BB7-FD52-42F4-B2EC-B0B7E2A1CA32			
<status>	<year>	<Taxon>	<Authority, Year>
*	2015	Cartorhynchus lenticarpus	Motani et al., 2015
		LSID	
		<reference, page>	[<occurrence information>.] <comments>
		Motani et al.	p 485 [Upper Member, Nanlinghu Formation, Subcolumbites Ammonite Biozone (Olenekian, Lower Triassic, Triassic); Majishan Quarry, Chaohu City, Hefei, China (UTM WGS84 50R 577953 3499041 = 31° 37' 26" N 117° 49' 19" E).] LSID: URN:LSID:ZOOBANK.ORG:PUB:9CFFEE63-2B8A-4C01-B9C7-CD3C53D684F5

If a work names a new species or combination, the LSID of the act is included as a link button alongside the taxon name,<sup>1</sup> where this is available. Similarly all works that have publication LSIDs have those included too.

<sup>1</sup> i.e. 

### *'Richter symbols' & certainty of assignment*

I've followed the recommendations of Matthews (1973), pretty much to the letter, for the symbols and styles included in the leftmost two columns.

#### *In front of the year* symbols in the leftmost column

- \* (asterisk) this publication marks the name becoming valid under ICZN rules.
- . (dot/period) we accept responsibility for attaching this reference to the taxon in question.
- (no sign) we cannot responsibly attach this reference, but do not doubt it.
- ? (question mark) there is some doubt in attaching this reference to the current taxon.
- v* *vidimus*, we have checked the deposited specimens. Can be accompanied by the above tokens:
  - v*\* we have seen the type specimen(s).
  - v*. we take responsibility for attaching the deposited specimens.
  - v* we do not take responsibility for attaching the deposited specimens.
  - v*? the specimens cannot be certainly assigned to this taxon.
- (?) the year of publication is uncertain.
- p* only part of the deposited specimens can be assigned to the current taxon.
  - vp* the deposited specimens have been checked and only part of them belong to this taxon.

#### *And by formatting the year* surrounding or changing the font

- 1881* (italicised) this work does not add morphological information, only occurrence information.
- 1881 (upright) the work adds to our knowledge on this taxon.
- (1881) (parentheses surrounding the year) the date of this work is uncertain.

### *Life Science Identifiers (LSID)*

*Life science identifiers*<sup>2</sup> are unique keys to identify and locate information important to the various life sciences. Relevant to this document are the identifiers used to link nomenclatural acts in *ZooBank*,<sup>3</sup> the official registry of the International Commission on Zoological Nomenclature (ICZN). Naming new taxa in the recent literature requires registering the act in ZooBank to be 'officially' recognised.<sup>4</sup>

Many of the taxa included herein were named before ZooBank was yet a glint in anyone's eye, although they may well have been included in the printed equivalent *Zoological Record*. I've registered several new publications and acts where these were not in ZooBank before, that

<sup>2</sup> <https://en.wikipedia.org/wiki/LSID>

<sup>3</sup> <http://zoobank.org>

<sup>4</sup> [https://www.iczn.org/the-code/the-international-code-of-zoological-nomenclature-the-code-online/\(Article 8.5.3\);https://en.wikipedia.org/wiki/ZooBank](https://www.iczn.org/the-code/the-international-code-of-zoological-nomenclature-the-code-online/(Article%208.5.3);https://en.wikipedia.org/wiki/ZooBank)

may be used henceforth. At the moment, these include only the original naming of species, not new combinations of specific and generic names.

## Links in this document

The L<sup>A</sup>T<sub>E</sub>X document from which this PDF is compiled includes the *hyperref* package to provide links within the document<sup>5</sup> and to other references on the web.<sup>6</sup> These have different colours, as follows:

<sup>5</sup> e.g. citations and sections

<sup>6</sup> e.g. LSIDs and DOIs

[Citation](#) links from the year of a citation to its reference in the bibliography.

[URL](#) often web links, particularly to websites, DOI links, LSID with the address fully written.

[LSID](#) link to a ZooBank LSID for an act.

## List of Species

ICHTHYOSAUIROMORPHA	4	Guizhouichthysaurus wolonggangense	7	Platypterygius ochevi	8
HUPEHSUCHIA	4	Gulosaurus helmi	7	Platypterygius platydactylus	8
Eohupehsuchus brevicollis	4	Hauffiopteryx typicus	7	Platypterygius sachicarum	9
Eretmorhipis carrolldongi	4	Himalayasaurus tibetensis	7	Protoichthysaurus applebyi	9
Hupehsuchus nanchangensis	4	Hudsonelpidia brevirostris	7	Protoichthysaurus prostaxalis	9
Nanchangosaurus suni	4	Ichthysaurus acutirostris	7	Qianichthysaurus xingyiensis	9
Parahupehsuchus longus	4	Ichthysaurus anningae	7	Qianichthysaurus zhoui	9
ICHTHYOSAUIRIFORMES	4	Ichthysaurus breviceps	7	Quasianosteosaurus vikinghoegdai	9
Acamptonectes densus	4	Ichthysaurus communis	7	Sclerocormus parviceps	9
Aegirosaurus leptospondylus	4	Ichthysaurus conybeari	7	Shastasaurus alexandrae	9
Acuetzpalin carranzai	4	Ichthysaurus larkini	7	Shastasaurus liangae	9
Arthropterygius chrisorum	4	Ichthysaurus somersetensis	7	Shastasaurus pacificus	9
Arthropterygius hoybergeti	4	Isfjordosaurus minor	7	Shastasaurus sikkaniensis	9
Arthropterygius lundii	5	Leninia stellans	7	Shonisaurus popularis	9
Arthropterygius thalassonotus	5	Leptonectes moorei	7	Simbirskiasaurus birjukovi	9
Athabascasaurus bitumineus	5	Leptonectes solei	7	Sisteronia seeleyi	9
Barracudasauroides panxianensis	5	Leptonectes tenuirostris	7	Stenopterygius aaleniensis	9
Besanosaurus leptorhynchus	5	Macgowania janiceps	7	Stenopterygius quadricissus	9
Brachypterygius alekseevi	5	Maiaspondylus lindoei	7	Stenopterygius triscissus	9
Brachypterygius extremus	5	Malawania anachronus	7	Stenopterygius uniter	9
Brachypterygius pseudoscythica	6	Mikadocephalus gracilirostris	7	Suevoleviathan disinteger	9
Californosaurus perrini	6	Mixosaurus cornalianus	7	Suevoleviathan integer	9
Callawayia neoscapularis	6	Mixosaurus kuhnschneyderi	7	Sveltonectes insolitus	9
Cartorhynchus lenticarpus	6	Mixosaurus xindianensis	7	Temnodontosaurus azerguensis	9
Caypullisaurus bonapartei	6	Mollesaurus pariallus	7	Temnodontosaurus crassimanus	9
Cetarthrosaurus walkeri	6	Muiscasaurus catheti	7	Temnodontosaurus eurycephalus	9
Chacaicosaurus cayi	6	Nannopterygius enthekiodon	7	Temnodontosaurus nuertingensis	9
Chaohusaurus chaoxianensis	6	Nannopterygius saveljeviensis	7	Temnodontosaurus platyodon	9
Chaohusaurus geishanensis	6	Nannopterygius yasykovi	8	Temnodontosaurus trigonus	9
Chaohusaurus zhangjiawanensis	7	Ophthalmosaurus icenicus	8	Thaisaurus chonglakmanii	9
Contectopalatus atavus	7	Ophthalmosaurus natans	8	Thalattoarchon saurophagis	9
Cymbospondylus buchseri	7	Parvinatator wapitiensis	8	Tholodus schmidi	9
Cymbospondylus nicholli	7	Pervushovisaurus bannovkensis	8	Toretocnemus californicus	9
Cymbospondylus petrinus	7	Pervushovisaurus campylodon	8	Toretocnemus zitteli	9
Cymbospondylus piscosus?	7	Pessopteryx nisseri	8	Undorosaurus gorodischensis	9
Dearcmhara shawcrossi	7	Phalarodon callawayi	8	Undorosaurus kielanae	9
Eurhinosaurus longirostris	7	Phalarodon fraasi	8	Undorosaurus nessovi	9
Excalibosaurus costini	7	Phalarodon major	8	Undorosaurus trautscholdi	9
Gengasaurus nicosiai	7	Phantomosaurus neubigi	8	Utatsusaurus hataii	9
Grippia longirostris	7	Platypterygius hercynicus	8	Wahlisaurus massarae	9
Guizhouichthysaurus tangae	7	Platypterygius americanus	8	Wimanius odontopalatus	10
		Platypterygius australis	8	Xinminosaurus catactes	10
		Platypterygius hauthali	8		

# ICHTHYOSAURIMORPHA Motani *et al.*, 2015

## HUPEHSUCHIA Carroll & Zhi-Ming, 1991

### *Eohupehsuchus brevicollis* Chen *et al.*, 2014a

URN:LSID:ZOOBANK.ORG:ACT:94F905DD-8995-4477-841A-85DEDA8C8287

v \* 2014a *Eohupehsuchus brevicollis* Chen *et al.*, 2014a

LSID

Chen *et al.* p 4 [Jialingjiang Formation (upper Spathian, Lower Triassic, Triassic); Yangping, Yuan'an County, Hubei Province, China.]  
URN:LSID:ZOOBANK.ORG:PUB:1B8887A9-F513-427D-BE9A-DBBB15DD9A44

### *Eretmorhipis carrolldongi* Chen *et al.*, 2015

URN:LSID:ZOOBANK.ORG:ACT:317DA1DF-4381-43F5-90CE-ADFD680F7178

1991 Hupehsuchia n. gen. n. sp.

Carroll & Zhi-Ming p 143 [Jialingjiang Formation (upper Spathian, Lower Triassic, Triassic); Tuling, Baihechuan, Xunjiang District, Nanzhang County, Hubei Province, China.]

v \* 2015 *Eretmorhipis carrolldongi* Chen *et al.*, 2015

LSID

Chen *et al.* p 4 [Jialingjiang Formation (upper Spathian, Lower Triassic, Triassic); Yingzhishang, Yuan'an County, Hubei Province, China.]  
URN:LSID:ZOOBANK.ORG:PUB:132627FE-9142-4EE2-BACB-08CAFC65C3E2

### *Hupehsuchus nanchangensis* Young & Dong, 1972

URN:LSID:ZOOBANK.ORG:ACT:416BF673-273A-4F3D-99B3-F369DBEC6CEA

v \* 1972 *Hupehsuchus nanchangensis* Young & Dong, 1972

LSID

Young & Dong p 28 [Jialingjiang Formation (upper Spathian, Lower Triassic, Triassic).] URN:LSID:ZOOBANK.ORG:PUB:D2CAD534-D3B0-4B2B-871F-7011E4B1EE74

### *Nanchangosaurus suni* Wang, 1959

### *Parahupehsuchus longus* Chen *et al.*, 2014b

URN:LSID:ZOOBANK.ORG:ACT:0B2F1D4D-0435-496F-B1C0-6913F265240F

## ICHTHYOSAURIFORMES Motani *et al.*, 2015

### *Acamptonectes densus* Fischer *et al.*, 2012

URN:LSID:ZOOBANK.ORG:ACT:AAB4BA7E-F53D-4962-8A9C-3240DFE2C4D8

v \* 2012 *Acamptonectes densus* Fischer *et al.*, 2012

LSID

Fischer *et al.* p 3 [Speeton Clay Formation, *Simbiskites concinnus/staffi* ammonite biozones (basal-upper Hauterivian, Lower Cretaceous, Cretaceous); Speeton, Yorkshire, U.K. and Cremlingen, Lower Saxony, Germany.]  
URN:LSID:ZOOBANK.ORG:PUB:66B3821A-1025-48DC-9C5F-7E6277FFD975

### *Aegirosaurus leptospondylus* (Wagner, 1853)

\* 1853 *Ichthyosaurus leptospondylus* Wagner, 1853

Wagner [Solnhofen Formation (Lower Tithonian, Upper Jurassic, Jurassic); Germany.]

2000 *Aegirosaurus leptospondylus* (Wagner, 1853)

Bardet & Fernández p 504 [Malm 2b, Solnhofen Formation (early Lower Tithonian, Upper Jurassic, Jurassic); Borsheim, Schrandel quarry district; Bavaria, Germany.]

### *Acuetzpalin carranzai* Barrientos-Lara *et al.*, 2020

URN:LSID:ZOOBANK.ORG:ACT:90130A25-6901-4DA6-84B8-D0680DF9BCAB

\* 2020 *Acuetzpalin carranzai* Barrientos-Lara *et al.*, 2020

LSID

Barrientos-Lara *et al.* p 3 [La Casita Formation (Kimmeridgian, Upper Jurassic, Jurassic); Cerro de Palotes, near of Cuencamé, Durango state, Northeast Mexico.]  
URN:LSID:ZOOBANK.ORG:PUB:2287DBB3-3E85-409D-9D97-A946DE865FCB

### *Arthropterygius chrisorum* (Russell, 1993)

\* 1993 *Ophthalmosaurus chrisorum* Russell, 1993

Russell p 198 [Ringnes Formation (Oxfordian–Kimmeridgian, Upper Jurassic, Jurassic); Cape Grassy, Melville Island, Canada (UTM WGS84 12X 433220 8453461 = 76° 9' 4" N 113° 30' W).]

? 2017 *Keilhauia nui* Delsett *et al.*, 2017

Delsett *et al.* p 7 [Slottsmøya Member, Agardfjellet Formation (early Berriasian, Lower Cretaceous, Cretaceous); Janusfjellet, Spitsbergen, Svalbard (UTM WGS84 33X 0518847 8696044 = 78.3363734°N 15.8351277°E).] *fide* Zverkov & Prilepskaya (2019)

p 2018 *Palvennia hoybergeti* Druckenmiller *et al.*, 2012

Delsett *et al.* p 8 [UTM WGS84 33X 0519622 8695649 = 78.3327333°N 15.8692035°E] PMO 222.669 *fide* Zverkov & Prilepskaya (2019)

2019 *Arthropterygius chrisorum* (Russell, 1993)

Zverkov & Prilepskaya p 15

### *Arthropterygius hoybergeti* (Druckenmiller *et al.*, 2012)

URN:LSID:ZOOBANK.ORG:ACT:03BA5E23-17B5-4AB1-B98A-681B9968A3F9

- \* 2012 *Palvennia hoybergeti* Druckenmiller *et al.*, 2012 LSID Druckenmiller *et al.* p 326 [Slottsmøya Member, Agardfjellet Formation (Middle Volgian, Upper Jurassic, Jurassic); Spitsbergen, Svalbard (UTM WGS84 33X 0518775 8696150 = 78.3373322°N 15.8320045°E).] URN:LSID:ZOOBANK.ORG:PUB:8791DF9D-E15B-4470-A02A-F05ECC3BB7D6
- p 2018 *Palvennia hoybergeti* Druckenmiller *et al.*, 2012 Delsett *et al.* p 8 [UTM WGS84 33X 0519622 8695649 = 78.3327333°N 15.8692035°E]
- 2019 *Arthropterygius hoybergeti* (Druckenmiller *et al.*, 2012) Zverkov & Prilepskaya p 31

### *Arthropterygius lundii* (Roberts *et al.*, 2014)

URN:LSID:ZOOBANK.ORG:ACT:71E65B35-7215-44AA-BCE7-E9A3B265E04F

- \* 2014 *Janusaurus lundii* Roberts *et al.*, 2014 LSID Roberts *et al.* p 4 [Slottsmøya Member, Agardfjellet Formation (middle Volgian, Upper Jurassic, Jurassic); Janusfjellet, Spitsbergen, Svalbard (UTM WGS84 33X 518821 8696195 = 78° 20.264' N 15° 50.044' E).] URN:LSID:ZOOBANK.ORG:PUB:FF4834F1-AEED-4B08-8E74-7125801C1B3E *fide* Zverkov & Prilepskaya (2019)
- 2016 *Janusaurus lundii* Roberts *et al.*, 2014 Delsett *et al.*
- 2017 *Janusaurus lundii* Roberts *et al.*, 2014 Delsett *et al.*
- 2019 *Arthropterygius lundii* (Roberts *et al.*, 2014) Zverkov & Prilepskaya p 40

### *Arthropterygius thalassonotus* Campos *et al.*, 2019

URN:LSID:ZOOBANK.ORG:ACT:3F09C714-961C-433C-B056-DFD3F8E3B5CD

- \* 2019 *Arthropterygius thalassonotus* Campos *et al.*, 2019 LSID Campos *et al.* p 184 [Vaca Muerta Formation (late Tithonian, Upper Jurassic, Jurassic); Yesera del Tromen-Pampa Tril area, north-western Neuquén Province, Argentina.] URN:LSID:ZOOBANK.ORG:PUB:A668AA96-CE4F-442E-AD3E-B757AD580CFC

### *Athabascasaurus bitumineus* Druckenmiller & Maxwell, 2010

URN:LSID:ZOOBANK.ORG:ACT:1CE8B3C1-8771-443A-8831-00025FB84CA6

- v \* 2010 *Athabascasaurus bitumineus* Druckenmiller & Maxwell, 2010 LSID Druckenmiller & Maxwell p 1039 [Wabiskaw Member, Clearwater Formation (lowermost Albian, Lower Cretaceous, Cretaceous); 35 km north of Fort McMurray, Alberta, Canada (UTM WGS84 12V 459464 6317120 = 56° 59' 45" N 111° 40' 02" W).] URN:LSID:ZOOBANK.ORG:PUB:2540811F-95E5-45BB-9B32-8E0416F61681

### *Barracudasauroides panxianensis* (Jiang *et al.*, 2006)

URN:LSID:ZOOBANK.ORG:ACT:05C7C635-6E53-4070-8856-047553A6B0BF

- \* 2006 *Mixosaurus panxianensis* Jiang *et al.*, 2006 LSID Jiang *et al.* p 62 [Upper Member, Guanling Formation, *Nicoraella germanicus* Conodont Biozone (Pelsonian, Anisian, Middle Triassic, Triassic); Yangjuan Village, Xinmin District, Panxian County, Guizhou Province, China.] URN:LSID:ZOOBANK.ORG:PUB:A3ED6813-7AA8-47CA-8197-04CA562417DF
- 2010 *Barracudasauroides panxianensis* (Maisch, 2010) Maisch p 161

### *Besanosaurus leptorhynchus* Dal Sasso & Pinna, 1996

URN:LSID:ZOOBANK.ORG:ACT:47C32E1B-18FE-40CF-B98E-E9A537601E43

- \* 1996 *Besanosaurus leptorhynchus* Dal Sasso & Pinna, 1996 LSID Dal Sasso & Pinna p 4 [Besano Formation, *Nevadites secedensis* Ammonite Biozone (Ilyrian, Anisian, Middle Triassic, Triassic); Sasso Caldo quarry, Besano, Varese Province, Lombardy, Northern Italy.] URN:LSID:ZOOBANK.ORG:PUB:EEA0F11C-D7BF-41BE-856E-DC2F3599273A

### *Brachypterygius alekseevi* (Arkhangelsky, 2001)

- \* 2001 *Otschevia alekseevi* Arkhangelsky, 2001 Arkhangelsky p 629 [*Dorsoplanites panderi* Ammonite Biozone (Volgian, Upper Jurassic, Jurassic); Volga River, 18 km north of Ulyanovsk, Ulyanovsk District, Ulyanovsk Region, Russian.]
- 2010 *Brachypterygius alekseevi* (Arkhangelsky, 2001) Maisch p 167
- 2015 *Grendelius alekseevi* (Zverkov *et al.*, 2015) Zverkov *et al.* p 562

### *Brachypterygius extremus* (Boulenger, 1904)

URN:LSID:ZOOBANK.ORG:ACT:5B04A1AF-9081-417D-9BFC-DC3AFA6DAAE3

- v \* 1904 *Ichthyosaurus extremus* Boulenger, 1904 LSID Boulenger p 425 [Kimmeridge Clay Formation (Kimmeridgian-Tithonian, Upper Jurassic, Jurassic); Smallmouth Sands, Weymouth, Dorset, U.K.] URN:LSID:ZOOBANK.ORG:PUB:98E5CD50-9FAF-458D-9D0A-9464EF76F429
- v 1922 *Brachypterygius extremus* (Boulenger, 1904) von Huene p 97 URN:LSID:ZOOBANK.ORG:PUB:2E316B82-8A25-43AE-A1C5-3785124EA6AE

v \* 1976 *Grendelius mordax* McGowan, 1976

McGowan p 671 [Kimmeridge Clay Formation, *Aulacostephanus autissiodorensis* Ammonite Biozone (middle Kimmeridgian, Upper Jurassic, Jurassic); Stowbridge, Norfolk, U.K. (UTM WGS84 31U 321960 5835045 = 52.6361361°N 0.368878°E).]

### *Brachypterygius pseudoscythica* (Efimov, 1998)

\* 1998 *Otschevia pseudoscythica* Efimov, 1998

Efimov p 83 [*Illovaishya pseudoscythica* Ammonite Biozone (Volgian, Upper Jurassic, Jurassic); Volga River, Ulyanovsk District, Ulyanovsk Region, Russia.]

2000 *Brachypterygius pseudoscythius* (Efimov, 1998) [sic.]

Maisch & Matzke p 79

2015 *Grendelius pseudoscythicus* (Efimov, 1998) [sic.]

Zverkov *et al.* p 561

### *Californosaurus perrini* (Merriam, 1902)

\* 1902 *Shastasaurus perrini* Merriam, 1902

Merriam p 89 [Hosselkus Limestone Formation; Shasta County, California, U.S.A.]

1905 *Delphinosaurus perrini* (Merriam, 1902)

Merriam p 24

1934 *Californosaurus perrini* (Merriam, 1902)

Kuhn p 27 [*non Delphinosaurus* von Eichwald, 1853]

### *Callawayia neoscapularis* (McGowan, 1994)

\* 1994 *Shastasaurus neoscapularis* McGowan, 1994

McGowan p 170 [Pardonet Formation, *Epigondolella triangularis* Conodont Biozone (Norian, Upper Triassic, Triassic); Peace Reach, Williston Lake, British Columbia, Canada.]

2000 *Callawayia neoscapularis* (McGowan, 1994)

Maisch & Matzke p 69 New combination takes priority over *Metashastasaurus* (Nicholls & Manabe, 2001, p. 1001).

2001 *Metashastasaurus neoscapularis* (McGowan, 1994)

Nicholls & Manabe p 985 [Pardonet Formation (Norian, Upper Triassic, Triassic); Chicken Creek, British Columbia, Canada.]

### *Cartorhynchus lenticarpus* Motani *et al.*, 2015

URN:LSID:ZOOBANK.ORG:ACT:FCCC9BB7-FD52-42F4-B2EC-B0B7E2A1CA32

\* 2015 *Cartorhynchus lenticarpus* Motani *et al.*, 2015

LSID

Motani *et al.* p 485 [Upper Member, Nanlinghu Formation, *Subcolumbites* Ammonite Biozone (Olenekian, Lower Triassic, Triassic); Majishan Quarry, Chaohu City, Hefei, China (UTM WGS84 50R 577953 3499041 = 31° 37' 26" N 117° 49' 19" E).]

URN:LSID:ZOOBANK.ORG:PUB:9CFFEE63-2B8A-4C01-B9C7-CD3C53D684F5

### *Caypullisaurus bonapartei* Fernández, 1997

URN:LSID:ZOOBANK.ORG:ACT:046EED7E-C624-465F-B0D4-1BB782CCD97D

\* 1997 *Caypullisaurus bonapartei* Fernández, 1997

LSID

Fernández p 480 [Vaca Muerta Formation, *Virgatospinctes mendozanus* Ammonite Biozone (late Tithonian, Upper Jurassic, Jurassic); Cerro Lotena, Neuquén Province, northwest patagonia, Argentina (UTM WGS84 19H 442358 5661434 = 39° 11' 40" N 69° 40' 03" S).] URN:LSID:ZOOBANK.ORG:PUB:1A5DDCD0-1713-410A-AE1B-F02EA1F1DF77

### *Cetarthrosaurus walkeri* (Seeley, 1873)

\* 1869 *Ichthyosaurus walkeri* Seeley, 1869

Seeley p 65 [Gault Formation (late Albian, Lower Cretaceous, Cretaceous).] Re-worked into Cambridge Greensand Member (Lower Chalk Formation; early Cenomanian). Described from a cast.

1873 *Cetarthrosaurus walkeri* (Seeley, 1869)

Seeley p 505

2014a *Cetarthrosaurus walkeri* (Seeley, 1869)

Fischer *et al.* p 17

### *Chacaicosaurus cayi* Fernández, 1994

### *Chaohusaurus chaoxianensis* (Chen, 1985)

### *Chaohusaurus geishanensis* Young & Dong, 1972

\* 1972 *Chaohusaurus geishanensis* Young & Dong, 1972

Young & Dong p 11 [Qinglong Formation (Spathian, Lower Triassic, Triassic); Chao County, Anhui Province, China.]



*Chaohusaurus zhangjiawanensis* Chen *et al.*, 2013  
*Contectopalatus atavus* (Quenstedt, 1852)  
*Cymbospondylus buchseri* Sander, 1989  
*Cymbospondylus nichollsi* Fröbisch *et al.*, 2006  
*Cymbospondylus petrinus* Leidy, 1868  
*Cymbospondylus piscosus?* Leidy, 1868  
*Dearcmhara shawcrossi* Brusatte *et al.*, 2015  
*Eurhinosaurus longirostris* (Mantell, 1851)  
*Excalibosaurus costini* McGowan, 1986  
*Gengasaurus nicosiai* Paparella *et al.*, 2016  
*Grippia longirostris* Wiman, 1929  
*Guizhouichthyosaurus tangae* Yin *et al.*, 2000  
*Guizhouichthyosaurus wolonggangense* (Chen *et al.*, 2007)  
*Gulosaurus helmi* Cuthbertson *et al.*, 2013  
*Hauffiopteryx typicus* Maisch, 2008  
*Himalayasaurus tibetensis* Young & Dong, 1972

\* 1972 *Himalayasaurus tibetensis* Young & Dong, Young & Dong p 7 [Langjiexue Group (Norian, Middle Triassic, Triassic); Tulong Area, Xizang, Tibet, China.] URN:LSID:ZOOBANK.ORG:PUB:D2CAD534-D3B0-4B2B-871F-7011E4B1EE74  
1972 **LSID**

*Hudsonelpidia brevirostris* McGowan, 1995  
*Ichthyosaurus acutirostris* Owen, 1840  
*Ichthyosaurus anningae* Lomax & Massare, 2015  
*Ichthyosaurus breviceps* Owen, 1881  
*Ichthyosaurus communis* Conybeare, 1822  
*Ichthyosaurus conybeare* Lydekker, 1888  
*Ichthyosaurus larkini* Lomax & Massare, 2017  
*Ichthyosaurus somersetensis* Lomax & Massare, 2017  
*Isfordosaurus minor* (Wiman, 1910)  
*Leninia stellans* Fischer *et al.*, 2014b  
*Leptonectes moorei* McGowan & Milner, 1999  
*Leptonectes solei* (McGowan, 1993)  
*Leptonectes tenuirostris* (Conybeare, 1822)  
*Macgowania janiceps* (McGowan, 1996)  
*Maiaespondylus lindoei* Maxwell & Caldwell, 2006  
*Malawania anachronus* Fischer *et al.*, 2013  
*Mikadocephalus gracilirostris* Maisch & Matzke, 1997  
*Mixosaurus cornalianus* (Bassani, 1886)  
*Mixosaurus kuhnschneyderi* (Brinkmann, 1998)  
*Mixosaurus xindianensis* Chen & Cheng, 2010  
*Mollesaurus pariallus* Fernández, 1999  
*Muiscasaurus catheti* Maxwell *et al.*, 2016

\* 2016 *Muiscasaurus catheti* Maxwell *et al.*, 2016 Maxwell *et al.* p 61 [Arcillolitas abigarradas Member, Paja Formation (Barremian–Aptian, Lower Cretaceous, Cretaceous); Vereda Llanitos, Sachica, Boyaca, Colombia (UTM WGS84 18N 662860 616018 = 05° 34.278' N 73° 31.781' W).]

*Nannopterygius enthekiodon* (Hulke, 1871)

URN:LSID:ZOOBANK.ORG:ACT:8467F95F-AC53-4EA7-9612-230E922A6FC

v \* 1871 *Ichthyosaurus enthekiodon* Hulke, 1871 **LSID** Hulke p 441 [Kimmeridge Clay Formation (Kimmeridgian–Tithonian, Upper Jurassic, Jurassic); Kimmeridge Bay, Dorset, U.K.] URN:LSID:ZOOBANK.ORG:PUB:4F0E90D0-27FF-409A-9CD5-976F182B8B4C

1922 *Nannopterygius enthekiodon* (Hulke, 1871) von Huene p 98 URN:LSID:ZOOBANK.ORG:PUB:2E316B82-8A25-43AE-A1C5-3785124EA6AE

*Nannopterygius saveljeviensis* (Arkhangelsky, 1997)

- \* 1997 *Paraophthalmosaurus savejeviensis* Arkhangelsky p 88  
Arkhangelsky, 1997
- 1999a *Yasykovia kabanovi* Efimov, 1999a Efimov p 98
- 2020 *Nannopterygius savejeviensis* (Arkhangelsky, 1997) Zverkov & Jacobs p 246 [Volgian, Upper Jurassic, Jurassic.]

*Nannopterygius yasykovi* (Efimov, 1999a)

- \* 1999a *Yasykovia sumini* Efimov, 1999a Efimov p 98

*Ophthalmosaurus icenicus* Seeley, 1874

URN:LSID:ZOOBANK.ORG:ACT:F598EAB9-08BF-44CF-BBF3-BB940BD24DBE

- v \* 1874 *Ophthalmosaurus icenicus* Seeley, 1874 LSID Seeley p 707 [Peterborough Member, Oxford Clay Formation (Callovian, Middle Jurassic, Jurassic); Peterborough, Cambridgeshire.]  
URN:LSID:ZOOBANK.ORG:PUB:4C83C9B2-665D-4AD7-8AF8-D365E5491831

*Ophthalmosaurus natans* (Marsh, 1879)

*Parvinatator wapitiensis* Nicholls & Brinkman, 1995

*Pervushovisaurus bannovkensis* Arkhangelsky, 1998

*Pervushovisaurus campylodon* (Carter, 1846)

- \* 1846 *Ichthyosaurus campylodon* Carter, 1846 Carter p 60 [Upper Greensand Formation (Albian–Cenomanian, Lower–Upper Cretaceous, Cretaceous); Cambridge, Cambridgeshire, U.K.]
- 1922 *Myopterygius campylodon* (Carter, 1846) von Huene p 98 URN:LSID:ZOOBANK.ORG:PUB:2E316B82-8A25-43AE-A1C5-3785124EA6AE
- 1972 *Platypterygius campylodon* (Carter, 1846) McGowan p 17
- 2016 *Pervushovisaurus campylodon* (Carter, 1846) Fischer p 8

*Pessopteryx nisseri* Wiman, 1910

*Phalarodon callawayi* Schmitz *et al.*, 2004

*Phalarodon fraasi* Merriam, 1910

*Phalarodon major* von Huene, 1916

*Phantomosaurus neubigi* (Sander, 1997)

*Platypterygius hercynicus* Kuhn, 1946

*Platypterygius americanus* Nace, 1939

- \* 1939 *Myopterygius americanus* Nace, 1939 Nace p 674 [Mowry Shale Member, Graneros Formation; Crook County Wyoming, U.S.A.]
- 1968 *Myopterygius americanus* Nace, 1939 Romer p 27 [Mowry Shale Member, Graneros Formation; Osage, Wyoming, U.S.A.]
- 1972 *Platypterygius americanus* (Nace, 1939) McGowan p 17

*Platypterygius australis* (M'Coy, 1867)

*Platypterygius hauthali* (von Huene, 1927)


*Platypterygius ochevi* Arkhangelsky *et al.*, 2008

*Platypterygius platydactylus* (Broili, 1907)

- 1922 *Platypterygius platydactylus* (Broili, 1907) von Huene p 99 URN:LSID:ZOOBANK.ORG:PUB:2E316B82-8A25-43AE-A1C5-3785124EA6AE



*Platypterygius sachicarum* Páramo, 1997  
*Protoichthyosaurus applebyi* Lomax *et al.*, 2017  
*Protoichthyosaurus prostaxalis* Appleby, 1979  
*Qianichthyosaurus xingyiensis* Yang *et al.*, 2013  
*Qianichthyosaurus zhoui* Li, 1999  
*Quasianosteosaurus vikinghoegdai* Maisch & Matzke, 2003  
*Sclerocormus parviceps* Jiang *et al.*, 2016  
*Shastasaurus alexandrae* Merriam, 1902  
*Shastasaurus liangae* (Yin *et al.*, 2000)  
*Shastasaurus pacificus* Merriam, 1895  
*Shastasaurus sikkaniensis* (Nicholls & Manabe, 2004)  
*Shonisaurus popularis* Camp, 1976  
*Simbirskiasaurus birjukovi* Otschev & Efimov, 1985  
*Sisteronia seeleyi* Fischer *et al.*, 2014a  
*Stenopterygius aaleniensis* Maxwell *et al.*, 2012  
*Stenopterygius quadriscissus* (Quenstedt, 1858)  
*Stenopterygius triscissus* (Quenstedt, 1858)  
*Stenopterygius uniter* von Huene, 1931b  
*Suevoleviathan disinteger* (von Huene, 1926)  
*Suevoleviathan integer* (Bronn, 1844)  
*Sveltonectes insolitus* Fischer *et al.*, 2011  
*Temnodontosaurus azerguensis* Martin *et al.*, 2012  
*Temnodontosaurus crassimanus* (Blake, 1876)  
*Temnodontosaurus eurycephalus* McGowan, 1974  
*Temnodontosaurus nuertingensis* (von Huene, 1931a)  
*Temnodontosaurus platyodon* (Conybeare, 1822)  
*Temnodontosaurus trigonus* (von Theodori, 1843)  
*Thaisaurus chonglakmanii* Mazin *et al.*, 1991  
*Thalattoarchon saurophagis* Fröbisch *et al.*, 2013  
*Tholodus schmidi* von Meyer, 1849  
*Toretocnemus californicus* Merriam, 1903  
*Toretocnemus zitteli* (Merriam, 1903)  
*Undorosaurus gorodischensis* Efimov, 1999b

- \* 1999b *Undorosaurus gorodischensis* Efimov, 1999b Efimov p 52 [*Epivirgatites nikitini* Ammonite Biozone (Volgian, Upper Jurassic, Jurassic); Undory, Volga Oblast, Russia.]
- 2012 *Cryopterygius kristiansenae* Druckenmiller *et al.*, 2012  Druckenmiller *et al.* p 313 [Slottsmøya Member, Agardfjellet Formation (middle Volgian, Upper Jurassic, Jurassic); Janusfjellet, Spitsbergen, Svalbard (UTM WGS84 33X 0518842 8696067 = 78.3365801°N 15.8349207°E).] URN:LSID:ZOOBANK.ORG:PUB:8791DF9D-E15B-4470-A02A-F05ECC3BB7D6 *vide* Zverkov & Efimov (2019)
- 2019 *Undorosaurus gorodischensis* Efimov, 1999b Zverkov & Efimov p 1189

*Undorosaurus kielanae* (Tyborowski, 2016)

- \* 2016 *Cryopterygius kielanae* Tyborowski, 2016 Tyborowski p 793 [Ślawnio Limestone Member, Kcynia Formation (uppermost Lower Tithonian = Middle Volgian, Upper Jurassic, Jurassic); Owadów-Brzezinki Quarry, Ślawnio (UTM WGS84 34U 439831 5692022 = 51.3762583 N 20.1355167 E).]
- ? 2019 *Undorosaurus kielanae* (Tyborowski, 2016) Zverkov & Efimov p 1187

*Undorosaurus nessovi* Efimov, 1999b

*Undorosaurus trautscholdi* Arkhangelsky & Zverkov, 2014

*Utatsusaurus hataii* Shikama *et al.*, 1978

*Wahlisaurus massarae* Lomax, 2016

- \* 2016 *Wahlisaurus massarae* Lomax, 2016 Lomax p 388 [Barnstone Member?, Scunthorpe Mudstone Formation?, Pre-*planorbis* or *Psiloceras planorbis* beds (lowermost Hettangian, Lower Jurassic, Jurassic); Normanton Hills near Normanton on Soar, Nottinghamshire, U.K.]

*Wimanius odontopalatus* Maisch & Matzke, 1998

*Xinminosaurus catactes* Jiang *et al.*, 2008

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