Ichthyosauromorph Taxonomy

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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 LuaLATEX 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., 2015a

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

<status> <year> <Taxon> <Authority, Year> 2015a

<reference, page> [<occurrence information>.] <comments> Cartorhynchus lenticarpus Motani et al., 2015a 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, where this is available. Similarly all works that have publication LSIDs have those included too.

'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.
- ν 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 identifiers² 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*, ³ 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.⁴

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

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1 i.e. LSID
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2 https://en.wikipedia.org/wiki/LSID
3 http://zoobank.org
4 https://www.iczn.org/the-code/
the-international-code-of-zoological-nomenclat
the-code-online/(Article 8.5.3);https:
//en.wikipedia.org/wiki/ZooBank
```

Introduction 2

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 LTEX document from which this PDF is compiled includes the *hyperref* package to provide links within the document⁵ and to other references on the web.⁶ These have different colours, as follows:

5 e.g. citations and sections 6 e.g. LSIDS and DOIS

Citation links from the year of a citation to its reference in the bibliography.

 $\it URL$ often web links, particularly to websites, DOI links, LSID with the address fully written.

link to a ZooBank LSID for an act.

List of Species

ICHTHYOSAUROMORPHA Grippia longirostris Platypterygius americanus Guizhouichthyosaurus tangae Platypterygius australis HUPEHSUCHIA Guizhouichthyosaurus wolonggangense Platypterygius hauthali 10 Eohupehsuchus brevicollis Gulosaurus helmi Platypterygius ochevi Eretmorhipis carrolldongi Hauffiopteryx altera Platypterygius platydactylus Hupehsuchus nanchangensis Hauffiopteryx typicus 8 Protoichthyosaurus applebyi 10 Nanchangosaurus suni Himalayasaurus tibetensis 8 Protoichthyosaurus prostaxalis Parahupehsuchus longus Qianichthyosaurus xingyiensis Hudsonelpidia brevirostris 8 Ichthyosaurus acutirostris Qianichthyosaurus zhoui **ICHTHYOSAURIFORMES** Ichthvosaurus anningae Quasianosteosaurus vikinghoegdai Acamptonectes densus Ichthyosaurus breviceps Sclerocormus parviceps Acuetzpalin carranzai Ichthyosaurus communis 8 Shastasaurus alexandrae Aegirosaurus leptospondylus Ichthyosaurus conybeari Shastasaurus liangae Arthropterygius chrisorum Ichthyosaurus larkini Shastasaurus pacificus Arthropterygius hoybergeti Shastasaurus sikkaniensis Ichthyosaurus somersetensis Arthropterygius lundi Isfjordosaurus minor Shonisaurus popularis Arthropterygius thalassonotus Iabalisaurus metzli Simbirskiasaurus biriukovi 8 $Arthrop terygius\ volgens is$ Kyhytysuka sachicarum Sisteronia seeleyi Athabascasaurus bitumineus Leninia stellans Stenopterygius aaleniensis Auroroborealia incognita Leptonectes moorei Stenopterygius quadriscissus Barracudasauroides panxianensis Leptonectes solei Stenopterygius triscissus Besanosaurus leptorhynchus Leptonectes tenuirostris Stenopterygius uniter Brachypterygius alekseevi Macgowania janiceps Suevoleviathan disinteger Brachypterygius extremus Maiaspondylus lindoei Suevoleviathan integer $Brachypterygius\ pseudoscythica$ Malawania anachronus Sveltonectes insolitus Californosaurus perrini Mixosaurus cornalianus Temnodontosaurus azerguensis Callawayia neoscapularis Mixosaurus kuhnschneyderi Temnodontosaurus crassimanus Cartorhynchus lenticarpus Mixosaurus xindianensis Temnodontosaurus eurycephalus $Catuto saurus\ gas pariniae$ Mollesaurus pariallus Temnodontosaurus nuertingensis Caypullisaurus bonapartei Muiscasaurus catheti Temnodontosaurus platyodon Cetarthrosaurus walkeri Nannopterygius enthekiodon Temnodontosaurus trigonodon Chacaicosaurus cavi Nannopterygius saveljeviensis Thaisaurus chonglakmanii Chaohusaurus brevifemoralis Thalassodraco etchesi Nannoptervgius vasykovi Chaohusaurus chaoxianensis Ophthalmosaurus icenicus Thalattoarchon saurophagis Chaohusaurus geishanensis Ophthalmosaurus natans Tholodus schmidi Chaohusaurus zhangjiawanensis Parrassaurus yacahuitztli Toretocnemus californicus Contectopalatus atavus Parvinatator wapitiensis Toretocnemus zitteli Cymbospondylus buchseri Pervushovisaurus bannovkensis Undorosaurus gorodischensis Cymbospondylus nichollsi Pervushovisaurus campylodon Undorosaurus kielanae Cymbospondylus petrinus Pessopteryx nisseri Undorosaurus nessovi Cymbospondylus piscosus? Phalarodon callawayi Undorosaurus trautscholdi $Cymbos pondylus\ young or um$ Phalarodon fraasi Utatsusaurus hataii 11 10 Dearcmhara shawcrossi Phalarodon major Wahlisaurus massarae Eurhinosaurus longirostris Phantomosaurus neubigi Wimanius odontonalatus 10 Excalibosaurus costini Platypterygius hercynicus Xinminosaurus catactes Gengasaurus nicosiai

ICHTHYOSAUROMORPHA Motani et al., 2015a

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

Chen et al. p 4 [Jialingjiang Formation (upper Spathian, Lower Triassic, Triassic); Yangping, Yuan'an County, Hubei Province, China.]

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,

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

* 1959 Nanchangosaurus suni Wang, 1959 LSID

Wang [Jialingjiang Formation (upper Spathian, Lower Triassic, Triassic).] URN:LSID:ZOOBANK.ORG:PUB:C31DBAA9-EDA9-4D29-92DD-BFC80461F0F4

2014c Nanchangosaurus suni Wang, 1959

Chen et al. p 3 [Jialingjiang Formation (upper Spathian, Lower Triassic, Triassic); Yuan'an County, Hubei Province, China.]

Parahupehsuchus longus Chen et al., 2014b

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

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

Chen $\it et\,al.\,p$ 3 [Jialingjiang Formation (upper Spathian, Lower Triassic, Triassic); Yuan'an County, Hubei Province, China.] <code>URN:LSID:ZOOBANK.ORG:PUB:0F2EED52-F0A2-4125-B96A-8E39E9854DBE</code>

ICHTHYOSAURIFORMES Motani et al., 2015a

Acamptonectes densus Fischer et al., 2012

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

v * 2012 Acamptonectes densus Fischer et al., 2012

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

2012 Acamptonectes densus Fischer et al., 2012

URN:LSID:ZOOBANK.ORG:PUB:66B3821A-1025-48DC-9C5F-7E6277FFD975

Acuetzpalin carranzai Barrientos-Lara et al., 2020

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

* 2020 Acuetzpalin carranzai Barrientos-Lara et al.,

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

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 ζ 2b, Solnhofen Formation (early Lower Tithonian, Upper Jurassic, Jurassic); Borscheim, Schrandel quarry district; Bavaria, Germany.]

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 $^{\circ}$ 30' W).]
?	2017	Keilhauia nui Delsett et al., 2017	Delsett <i>et al.</i> 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).] <i>fide</i> Zverkov & Prilepskaya (2019)
p		Palvennia hoybergeti Druckenmiller et al., 2012 Arthropterygius chrisorum (Russell, 1993)	Delsett <i>et al.</i> p 8 [UTM WGS84 33X 0519622 8695649 = 78.3327333°N 15.8692035°E] PMO 222.669 <i>fide</i> Zverkov & Prilepskaya (2019) 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.,	Druckenmiller et al. p 326 [Slottsmøya Member, Agardfjellet Formation (Middle
		2012 LSID	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.,	Delsett et al. p 8 [UTM WGS84 33X 0519622 8695649 = 78.3327333°N 15.8692035°E]
	2019	Arthropterygius hoybergeti (Druckenmiller	Zverkov & Prilepskaya p 31

Arthropterygius lundi (Roberts et al., 2014)

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

*	2014 Janusaurus lundi Roberts et al., 2014 LSID	Roberts <i>et al.</i> 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 <i>fide</i> Zverkov & Prilepskaya (2019)
	2016 Janusaurus lundi Roberts et al., 2014	Delsett et al.
	2017 Janusaurus lundi Roberts et al., 2014	Delsett et al.
	2019 Arthropterygius lundi (Roberts et al., 2014)	Zverkov & Prilepskaya p 40

Arthropterygius thalassonotus Campos et al., 2020

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

Campos et al., 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

Arthropterygius volgensis (Kasansky, 1903)

2019 Arthropterygius volgensis (Kasansky, 1903) Zverkov & Prilepskaya p 44 [Dorsoplanites panderi Ammonite Biozone (middle Volgian, Upper Jurassic, Jurassic); mouth of the Berezoviy Dol Ravine near Novaya Racheika Village, Syzran District, Samara Region, Russian.]

Athabascasaurus bitumineus Druckenmiller & Maxwell, 2010

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

v * 2010 Athabascasaurus bitumineus 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

Auroroborealia incognita Zverkov et al., 2021

URN:LSID:ZOOBANK.ORG:ACT:5EFAB647-9971-4361-925D-A64B665521E9

* 2021 Auroroborealia incognita Zverkov et al., 2021 Zverkov et al. p 6 [Pinacoceras verchojanicum Ammonoid Biozone (lower Norian, Upper Triassic, Triassic); Kotelny Island, New Siberian Islands, Russia.]

Barracudasauroides panxianensis (Jiang et al., 2006)

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

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

Maisch p 161
2010

Besanosaurus leptorhynchus Dal Sasso & Pinna, 1996

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

*	1996	Besanosaurus leptorhynchus Dal Sasso &	Dal Sasso & Pinna p 4 [Besano Formation, Nevadites secedensis Ammonite
		Pinna, 1996 LSID	Biozone (Ilyrian, Anisian, Middle Triassic, Triassic); Sasso Caldo, Italy.]
			URN:LSID:ZOOBANK.ORG:PUB:EEA0F11C-D7BF-41BE-856E-DC2F3599273A
	1997	Mikadocephalus gracilirostris Maisch &	Maisch & Matzke p 268 [Besano Formation, Reitziites reitzi-Nevadites secedensis am-
		Matzke, 1997	monoid biozones (Ilyrian, Anisian, Middle Triassic, Triassic); Switzerland.]
	2021	Besanosaurus leptorhynchus Dal Sasso &	Bindellini et al. p 20 [Besano Formation, Nevadites secedensis Ammonoid Biozone

Pinna, 1996 (Ilyrian, Anisian, Middle Triassic, Triassic); Sasso Caldo, Italy.]

2021 Besanosaurus leptorhynchus Dal Sasso & Bindellini et al. p 20 [Besano Formation, Nevadites secedensis Ammonoid Biozone

(Ilyrian, Anisian, Middle Triassic, Triassic); Val Stelle, Tre Fontane, Switzerland.]

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, Maisch p 167

2001)

Pinna, 1996

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)

v * 1976 Grendelius mordax McGowan, 1976

von Huene p 97 URN:LSID:ZOOBANK.ORG:PUB:2E316B82-8A25-43AE-A1C5-3785124EA6AE 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 [Ilowaiskya pseudoscythica Ammonite Biozone (Volgian, Upper Jurassic,

Jurassic); Volga River, Ulyanovsk District, Ulyanovsk Region, Russia.]
2000 Brachypterygius psudoscythius (Efimov, 1998) Maisch & Matzke p 79

[sic.]

[SIC.]

2015 Grendelius pseudoscythicus (Efimov, 1998) Zverkov et al. p 561

[sic.]

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)

 $* \quad 1994 \quad \textit{Shastasaurus neoscapularis} \; \texttt{McGowan}, \\ 1994 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{Conodont Biozone}, \\ 1994 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{Conodont Biozone}, \\ 1994 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{Conodont Biozone}, \\ 1994 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{Conodont Biozone}, \\ 1995 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{Conodont Biozone}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{Conodont Biozone}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{Conodont Biozone}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{Conodont Biozone}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{McGowan}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{McGowan}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{McGowan}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{McGowan}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{McGowan}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{McGowan}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{McGowan}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{McGowan}, \\ 1996 \quad \quad \texttt{McGowan} \; p \; 170 \; [\texttt{Pardonet Formation}, \textit{Epigondolella triangularis} \; \texttt{McGowan}, \\ 1996 \quad \quad \texttt{McGowan} \; \texttt{McGowan}, \\ 1996 \quad \quad \texttt{McGowan}, \\ 1996 \quad$

(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 (Nich-

olls & Manabe, 2001, p. 1001).

2001 Metashastasaurus neoscapularis (McGowan, Nicholls & Manabe p 985 [Pardonet Formation (Norian, Upper Triassic, Triassic);

1994) Chicken Creek, British Columbia, Canada.]

Cartorhynchus lenticarpus Motani et al., 2015a

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

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

Catutosaurus gaspariniae Fernández et al., 2021

URN:LSID:ZOOBANK.ORG:ACT:BC3E93E7-C574-4B50-9315-2CDAD067C721

1988 Ophthalmosaurus monocharactus Appleby, Gasparini p 3 [Vaca Muerta Formation.] 1956

2000 Aegirosaurus sp. Bardet & Fernández, 2000
2021 Catutosaurus gaspariniae Fernández et al.,
2021 LSID

Maisch & Matzke p 87

Fernández et al. p 2 [Los Catutos Member, Vaca Muerta Formation, Aulasphinctes proximus-Windhauseniceras internispinosum ammonoid biozones (upper middle-lower upper Tithonian, Upper Jurassic, Jurassic); El Ministerio
Quarry, Los Catutos, Zapala Department, Neuquén Province, Argentina.]
URN:LSID:ZOOBANK.ORG:PUB:FDB6C301-BAE5-4212-9310-BE09E24605F9 SUPPLEMENTAL
DATA—SUPPLEMENTAL MATERIALS ARE AVAILABLE FOR THIS ARTICLE FOR FREE AT W

Caypullisaurus bonapartei Fernández, 1997

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

* 1997 Caypullisaurus bonapartei Fernández, 1997

Fernández p 480 [Vaca Muerta Formation, *Virgatosphinctes 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″ \$).] 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).] Reworked into Cambridge Greensand Member (Lower Chalk Formation; early Cenomanian). Described from a cast.

1873 Cetarthrosaurus walkeri (Seeley, 1869)
2014a Cetarthrosaurus walkeri (Seeley, 1869)
Fischer et al. p 17

Chacaicosaurus cayi Fernández, 1994

* 1994 Chacaicosaurus cayi Fernández, 1994 Fernández p 293 [Les Molles Formation (early Bajocian, Middle Jurassic, Jurassic); Chacaico Sur, Patagonia, Argentina.]
2007 Stenopterygius cayi (Fernández, 1994) Fernández p 277

Chaohusaurus brevifemoralis Huang et al., 2019

URN:LSID:ZOOBANK.ORG:ACT:B0085E53-C6E4-4C2E-96FF-6D485D3585BA

p 1998a Chaohusaurus chaoxianensis (Chen, 1985)
 p 1998b Chaohusaurus geishanensis Young & Dong, 1972
 p 2015b Chaohusaurus chaoxianensis (Chen, 1985)
 p 2017 Chaohusaurus chaoxianensis (Chen, 1985)
 x 2019 Chaohusaurus brevifemoralis Huang et al., Huang et al. p 7 [Upper Page 1985]

ng et al., Huang et al. p 7 [Upper Member, Nanlinghu Formation, Subcolumbites Ammonoid Biozone (Spathian, Olenekian, Lower Triassic, Triassic); Majiashan, Anhui Province, China.] URN:LSID:ZOOBANK.ORG:PUB:3FA09089-C940-4499-ABBC-B48F0F70F38E

Chaohusaurus chaoxianensis (Chen, 1985)

2019 LSID

1985 Anhuisaurus chaoxianensis Chen, 1985 Chen p 140 [Upper Member, Nanlinghu Formation (Spathian, Olenekian, Lower Triassic, Triassic); Majiashan, Anhui Province, China.] 1985 Anhuisaurus faciles Chen, 1985 Chen p 142 [Upper Member, Nanlinghu Formation (Spathian, Olenekian, Lower Triassic, Triassic); Majiashan, Anhui Province, China.] Chensaurus chaoxianensis (Chen, 1985) Mazin et al. p 1207 1991 Chensaurus faciles (Chen, 1985) Mazin et al. p 1207 1998a Chaohusaurus chaoxianensis (Chen. 1985) Motani & You 1998b Chaohusaurus geishanensis Young & Dong, Motani & You p 533 2015b Chaohusaurus chaoxianensis (Chen, 1985) Motani et al. p e892011-3

Chaohusaurus geishanensis Young & Dong, 1972

* 1972 Chaohusaurus geishanensis Young & Dong, Young & Dong p 11 [Qinglong Formation (Spathian, Lower Triassic, Triassic); Chao 1972 County, Anhui Province, China.]

Chaohusaurus zhangjiawanensis Chen et al., 2013

v * 2013 Chaohusaurus zhangjiawanensis Chen et al., Chen et al. p 673 [Third Member, Jialingjiang Formation, Neospathodus homeri–N. triangularis Conodont Biozone (upper Spathian, Lower Triassic, Triassic); Zhangjiawan Village, Yangping Town, Yuan'an County, Hubei Province, China.]

Contectopalatus atavus (Quenstedt, 1852)

* 1852 Ichthyosaurus atavus Quenstedt, 1852 Quenstedt p 129 [Wellenkalk Formation (Anisian, Middle Triassic, Triassic);
Althengstett, Baden-Württenbug, Germany.]

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1891 Mixosaurus atavus atavus (Quenstedt, 1852)
                                                Fraas p 38 fide McGowan & Motani (2003, p. 67)
        [as Mixossaurus atavus var. minor]
   1916 Mixosaurus atavus (Quenstedt, 1852)
                                                von Huene p 3
   1998b Contectopalatus atavus (Quenstedt, 1852)
                                                Maisch & Matzke p 115
   2003 Mixosaurus atavus (Quenstedt, 1852)
                                                McGowan & Motani p 67
Cymbospondylus buchseri Sander, 1989
Cymbospondylus nichollsi Fröbisch et al., 2006
Cymbospondylus petrinus Leidy, 1868
Cymbospondylus piscosus? Leidy, 1868
Cymbospondylus youngorum Sander et al., 2021
   2021 Cymbospondylus youngorum Sander et al.,
                                                Sander et al. p 1 [Fossil Hill Member, Favret Formation, Nevadisculites taylori Am-
                                                monoid Biozone (Anisian, Middle Triassic, Triassic); Favret Canyon, Augusta Moun-
                                                tains, Pershing County, Nevada, USA.]
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 altera Maxwell & Cortés, 2020
   URN:LSID:ZOOBANK.ORG:ACT:A567A292-2A58-495A-839F-FF8382B49479
   2005 Eurhinosaurus longirostris (Mantell, 1851)
   2020 Hauffiopterx altera Maxwell & Cortés, 2020
                                                Maxwell & Cortés p 11 [Lias & II,4/5, Posidonia Shale Formation, Harpoceras serpent-
                                                inum Ammonoid Biozone, Harpoceras exaratum Ammonoid Subbiozone (Toarcian,
                                                Lower Jurassic, Jurassic): Dotternhausen-Dormettingen, Bade-Württemberg, Ger-
                                                many.] URN:LSID:ZOOBANK.ORG:PUB:041F166A-28FC-4ED6-AD7C-DF64EF4EF1A7
Hauffiopteryx typicus Maisch, 2008
   2020 Hauffiopterx typicus Maisch, 2008
                                                Maxwell & Cortés p 3 [Lias EII,4, Posidonia Shale Formation, Harpoceras serpentinum
                                                Ammonoid Biozone, Harpoceras exaratum Ammonoid Subbiozone (Toarcian, Lower
                                                Jurassic, Jurassic); Dotternhausen-Dormettingen, Bade-Württemberg, Germany.]
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-
        1972 LSID
                                                7011E4B1EE74
Hudsonelpidia brevirostris McGowan, 1995
Ichthyosaurus acutirostris Owen, 1840
Ichthyosaurus anningae Lomax & Massare, 2015
Ichthyosaurus breviceps Owen, 1881
Ichthyosaurus communis Conybeare, 1822
Ichthyosaurus conybeari Lydekker, 1888
Ichthyosaurus larkini Lomax & Massare, 2017
Ichthyosaurus somersetensis Lomax & Massare, 2017
Isfjordosaurus minor (Wiman, 1910)
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Jabalisaurus metzli Barrientos-Lara & Alvarado-Ortega, 2021b urn:lsid:zoobank.org:act:eaebe989-a483-478e-85b0-32995fdc8057

2010 Ophthalmosaurus cf. icenicus Seeley, 1874
2014 Ophthalmosaurus cf. icenicus Seeley, 1874
2021b Jabalisaurus metzli Barrientos-Lara &

Alvarado-Ortega, 2021b LSID

Buchy p 149 [coquina layer, La Casita Formation (upper Kimmeridgian, Upper Jurassic, Jurassic); Sierra El Jabalí, near Gómez Farías, Saltillo, Caohuila, Mexico.]
Frey & Stinnesbeck [Sierra El Jabalí, near Gómez Farías, Saltillo, Caohuila, Mexico.]
Barrientos-Lara & Alvarado-Ortega p 4 [coquina layer, La Casita Formation (upper Kimmeridgian, Upper Jurassic, Jurassic); Sierra El Jabalí, near Gómez Farías, Saltillo, Caohuila, Mexico.]

Kyhytysuka sachicarum (Páramo-Fonseca, 1997)

1997 Platypterygius sachicarum Páramo-Fonseca, Páramo-Fonseca p 2 [Arcillolitas Abigarrada Member, Paja Formation (Barremian-Aptian, Lower Cretaceous, Cretaceous); Loma Pedro Luis, Villa de Leyva,

Boyacá, Colombia.]

2021 Kyhytysuka sachicarum (Páramo-Fonseca, 1997)

Cortés et al. p 2 [Arcillolitas Abigarrada Member, Paja Formation (latest Barremian, Lower Cretaceous, Cretaceous); El Roble Locality, Villa de Leyva, Boaycá, Colombia.] URN:LSID:ZOOBANK.ORG:PUB:E3FD55AF-2AD1-46CA-A49C-1FB4B102AB2C

Leninia stellans Fischer et al., 2014b

Leptonectes moorei McGowan & Milner, 1999

Leptonectes solei (McGowan, 1993)

Leptonectes tenuirostris (Conybeare, 1822)

Macgowania janiceps (McGowan, 1996)

Maiaspondylus lindoei Maxwell & Caldwell, 2006

Malawania anachronus Fischer et al., 2013

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-AC53-4EA7-9612-230E9222A6FC

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 saveljeviensis Arkhangelsky, 1997

Arkhangelsky p 88

1999a Yasykovia kabanovi Efimov, 1999a

Efimov p 98

2020 Nannopterygius saveljeviensis (Arkhangelsky, 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)

Parrassaurus yacahuitztli Barrientos-Lara & Alvarado-Ortega, 2021a

URN:LSID:ZOOBANK.ORG:ACT:EACD70CD-6B63-4485-9C27-23EFDC64D165

2021a Parrassaurus yacahuitztli Barrientos-Lara & Alvarado-Ortega, 2021a LSID

Barrientos-Lara & Alvarado-Ortega p 2 [La Caja Formation (upper Tithonian, Upper Jurassic, Jurassic); Rancho el Sombrero, Sierra de Parras, Saltillo Municipality, Coahuila, Mexico.] URN:LSID:ZOOBANK.ORG:PUB:3C6D6D2B-6F30-4DF3AEB4-FD2B-

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Parvinatator wapitiensis Nicholls & Brinkman, 1995 Pervushovisaurus bannovkensis Arkhangelsky, 1998

Pervushovisaurus campylodon (Carter, 1846)

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Ichthyosaurus campylodon Carter, 1846
                                              Carter p 60 [Upper Greensand Formation (Albian-Cenomanian, Lower-Upper Creta-
   1846
                                              ceous, Cretaceous); Cambridge, Cambridgeshire, U.K.]
   1922 Myopterygius campylodon (Carter, 1846)
                                              von Huene p 98 URN:LSID:ZOOBANK.ORG:PUB:2E316B82-8A25-43AE-A1C5-3785124EA6AE
        Platypterygius campylodon (Carter, 1846)
                                              McGowan p 17
   2016 Pervushovisaurus campylodon (Carter, 1846)
                                              Fischer p 8
Pessopteryx nisseri Wiman, 1910
   1910 Pessopteryx nisseri Wiman, 1910
                                              Wiman p 139 [Lower Saurian Niveau, Vikinghøgda Formation, Keyserlingites subro-
                                              bustus Ammonoid Biozone (Spathian, Lower Triassic, Triassic).]
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.1
   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
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 trigonodon (von Theodori, 1843)
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List of Species 10

Thaisaurus chonglakmanii Mazin et al., 1991

Thalassodraco etchesi Jacobs & Martill, 2020

URN:LSID:ZOOBANK.ORG:ACT:35626449-D5AC-4970-B76E-27A827126D23

v * 2020 Thalassodraco etchesi Jacobs & Martill, 2020 Jacobs & Martill p 7 [White Stone Band, Kimmeridge Clay Formation, Pectinatites $pectinatus \ Ammonite \ Biozone \ (early \ Tithonian, \ Upper \ Jurassic, \ Jurassic); \ Rope \ Lake$ Bay, Kimmeridge, Dorset U.K.] URN:LSID:ZOOBANK.ORG:PUB:C1D99FF1-D4FC-4526-8E28-1B8FA64E21C0 UK GR SY932775

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 LSID

Druckenmiller et al. p 313 [Slottsmøya Member, Agardfjellet Formation (middle Vol-

gian, 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 fide Zverkov & Efimov (2019)

2019 Undorosaurus gorodischensis Efimov, 1999b

Zverkov & Efimov p 1189

Undorosaurus kielanae (Tyborowski, 2016)

2016 Cryopterygius kielanae Tyborowski, 2016

Tyborowski p 793 [Sławno Limestone Member, Kcynia Formation (uppermost Lower Tithonian = Middle Volgian, Upper Jurassic, Jurassic); Owadów-Brzezinki Quarry, Sławno (UTM WGS84 34U 439831 5692022 = 51.3762583 N 20.1355167 E).]

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, 1998a Xinminosaurus catactes Jiang et al., 2008

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 DOI: 10.1016/j.jsames.2021.103499.
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