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 LuaFTEX 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:

Cartorhynchus lenticarpus Motani et al., 2015

```
{\tt LSID: URN:LSID: ZOOBANK. ORG: ACT: FCCC9BB7-FD52-42F4-B2EC-B0B7E2A1CA32}
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<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, where this is available. Similarly all works that have publication LSIDs have those included too.

1 i.e. LSID

'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* * (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 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 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 Lagrangian Temperature Tem

- 2https://en.wikipedia.org/wiki/LSID
- 3http://zoobank.org
- 4https://en.wikipedia.org/wiki/ZooBank

5 e.g. citations and sections

erences on the web⁶. These have different colours, as follows:

6 e.g. LSIDS and DOIS

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

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

link to a ZooBank LSID for an act.

ICHTHYOSAUROMORPHA Motani et al., 2015

HUPEHSUCHIA Carroll & Dong, 1991

Eohupehsuchus brevicollis Chen et al, 2014b

2014b Eohupehsuchus brevicollis Chen et al.

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

Eretmorhipis carrolldongi Chen et al., 2015

1991 Hupehsuchia n. g., n. s.

p 143 [Jialingjiang Formation (Upper Spathian, Lower Triassic); Tuling, Baihechuan,

Xunjian District, Nanzhang County, Hubei Province, China].

2015 Eretmorhipis carrolldongi Chen et al.

p 4 [Jialingjiang Formation (Upper Spathian, Lower Triassic); Yingzhishang,

Yuan'an County, Hubei Province, China].

Hupehsuchus nanchangensis Young & Dong, 1972

Nanchangosaurus suni Wang, 1959

Parahupehsuchus longus Chen et al., 2014a

ICHTHYOSAURIFORMES Motani et al., 2015

Acamptonectes densus Fischer et al., 2012

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

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. and Cremlingen, Lower Saxony, Germany.] LSID: 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); Ger-

2000 Aegirosaurus leptospondylus (Wagner, 1853)

Bardet and Fernández p 504 [Malm Z 2b, Solnhofen Formation (early Lower Tithonian, Upper Jurassic, Jurassic); Borscheim, Schrandel quarry district; Bavaria,

Germany.]

Acuetzpalin carranzai Barrientos-Lara et al., 2020

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

2020 LSID

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.] LSID: 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).] fide Zverkov and Prilepskaya (2019)

2018 Palvennia hoybergeti Druckenmiller et al.,

Delsett et al. p 8 [UTM WGS84 33X 0519622 8695649] PMO 222.669 fide Zverkov and

Prilepskaya (2019)

2019 Arthropterygius chrisorum (Russell, 1993) Zverkov and Prilepskaya p 15

Arthropterygius hoybergeti (Druckenmiller et al., 2012)

LSID: 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).] LSID: URN:LSID:ZOOBANK.ORG:PUB:8791DF9D-E15B-4470-A02A-F05ECC3BB7D6

2018 Palvennia hoybergeti Druckenmiller et al.,

2019 Arthropterygius hoybergeti (Druckenmiller et al., 2012)

Delsett et al. p 8 [UTM WGS84 33X 0519622 8695649]

Zverkov and Prilepskava p 31

Arthropterygius lundi (Roberts et al., 2014)

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

2014 Janusaurus lundi 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 $8696195 = 78^{\circ} 20.264' \text{ N } 15^{\circ} 50.044' \text{ E}$] LSID: URN:LSID:ZOOBANK.ORG:PUB:FF4834F1-AEED-4B08-8E74-7125801C1B3E fide Zverkov and Prilepskaya (2019)

Delsett et al. Delsett et al.

2016 Janusaurus lundi Roberts et al., 2014 2017 Ianusaurus lundi Roberts et al., 2014

2019 Arthropterygius lundi (Roberts et al., 2014)

Zverkov and Prilepskaya p 40

Athabascasaurus bitumineus Druckenmiller and Maxwell, 2010

v * 2010 Athabascasaurus bitumineus Druckenmiller and Maxwell, 2010

Druckenmiller and 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).]

Barracudasauroides panxianensis (Jiang et al., 2006)

2006 Mixosaurus panxianensis Jiang et al., 2006

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.]

2010 Barracudasauroides panxianensis (Maisch,

Maisch p 161

Besanosaurus leptorhynchus Dal Sasso and Pinna, 1996

Besanosaurus leptorhynchus Dal Sasso and Pinna, 1996

Dal Sasso and Pinna p 4 [Besano Formation, Nevadites secedensis Ammonite Biozone (Ilyrian, Anisian, Middle Triassic, Triassic); Sasso Caldo quarry, Besano, Varese Province, Lombardy, Northern Italy.]

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)

2015

Grendelius alekseevi (Zverkov et al., 2015)

Maisch p 167

Zverkov et al. p 562

Brachypterygius extremus (Boulenger, 1904)

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

* 1904 Ichthyosaurus extremus Boulenger, 1904

Boulenger p 425 [Kimmeridge Clay Formation (Kimmeridgian-Tithonian, Upper Jurassic, Jurassic); Smallmouth Sands, Weymouth, Dorset, U.K.] LSID: URN:LSID:ZOOBANK.ORG:PUB:98E5CD50-9FAF-458D-9D0A-9464EF76F429

Brachypterygius extremus (Boulenger, 1904) 1922

von Huene p 97 LSID: URN:LSID:ZOOBANK.ORG:PUB:2E316B82-8A25-43AE-A1C5-

3785124EA6AE

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).]

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 and Matzke p 79

[sic.]

Grendelius pseudoscythicus (Efimov, 1998)

[sic.]

Zverkov et al. p 561

Californosaurus perrini (Merriam, 1902)

1902 Shastasaurus perrini Merriam, 1902 1905 Delphinosaurus perrini (Merriam, 1902)

1934 Californosaurus perrini (Merriam, 1902)

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

Merriam p 24

Kuhn p 27 [non Delphinosaurus 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 and Matzke p 69 New combination takes priority over Metashastasaurus

(Nicholls and Manabe, 2001, p. 1001).

2001 Metashastasaurus neoscapularis (McGowan,

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

Cartorhynchus lenticarpus Motani et al., 2015

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

2015 Cartorhynchus lenticarpus Motani et al., 2015 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

Caypullisaurus bonapartei Fernández, 1997

Cetarthrosaurus walkeri Seeley, 1873

Chacaicosaurus cayi Fernández, 1994

Chaohusaurus chaoxianensis (Chen, 1985)

Chaohusaurus geishanensis Young and Dong, 1972

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 and Dong, 1972

Hudsonelpidia brevirostris McGowan, 1995

Ichthyosaurus acutirostris Owen, 1840

Ichthyosaurus anningae Lomax and Massare, 2015

Ichthyosaurus breviceps Owen, 1881

Ichthyosaurus communis Conybeare, 1822

Ichthyosaurus conybeari Lydekker, 1888

Ichthyosaurus larkini Lomax and Massare, 2017

Ichthyosaurus somersetensis Lomax and Massare, 2017

Isfjordosaurus minor (Wiman, 1910)

Leninia stellans Fischer et al., 2014a

Leptonectes moorei McGowan and Milner, 1999

Leptonectes solei (McGowan, 1993)

Leptonectes tenuirostris (Conybeare, 1822)

Macgowania janiceps (McGowan, 1996)

Maiaspondylus lindoei Maxwell and Caldwell, 2006

Malawania anachronus Fischer et al., 2013

Mikadocephalus gracilirostris Maisch and Matzke, 1997

Mixosaurus cornalianus (Bassani, 1886)

Mixosaurus kuhnschneyderi (Brinkmann, 1998)

Mixosaurus xindianensis Chen and 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)

LSID: 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.] LSID: URN:LSID:ZOOBANK.ORG:PUB:4F0E90D0-27FF-409A-9CD5-976F182B8B4C VON Huene p 98 LSID: URN:LSID:ZOOBANK.ORG:PUB:2E316B82-8A25-43AE-A1C5-

1922 Nannopterygius enthekiodon (Hulke, 1871) von Huene 3785124EA6

3785124EA6AE

Nannopterygius saveljeviensis (Arkhangelsky, 1997)

* 1997 Paraophthalmosaurus savejeviensis Arkhangelsky p 88
Arkhangelsky, 1997

1999b Yasykovia kabanovi Efimov, 1999b Efimov p 98

2020 Nannopterygius savejeviensis (Arkhangelsky, Zverkov and Jacobs p 246 [Volgian, Upper Jurassic, Jurassic.] 1997)

Nannopterygius yasykovi (Efimov, 1999b)

* 1999b Yasykovia sumini Efimov, 1999b Efimov p 98

Ophthalmosaurus icenicus Seeley, 1874

LSID: 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.] LSID:
URN:LSID:ZOOBANK.ORG:PUB:4C83C9B2-665D-4AD7-8AF8-D365E5491831

Ophthalmosaurus natans (Marsh, 1879)

Parvinatator wapitiensis Nicholls and 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 Creta-

ceous, Cretaceous); Cambridge, Cambridgeshire, U.K.]

von Huene p 98 LSID: URN:LSID:ZOOBANK.ORG:PUB:2E316B82-8A25-43AE-A1C5-

3785124EA6AE

1972 *Platypterygius campylodon* (Carter, 1846) 2016 *Pervushovisaurus campylodon* (Carter, 1846)

Myopterygius campylodon (Carter, 1846)

McGowan p 17 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

1972 Platypterygius americanus (Nace, 1939)

Romer p 27 [Mowry Shale Member, Graneros Formation; Osage, Wyoming, U.S.A.]

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 LSID: URN:LSID:ZOOBANK.ORG:PUB:2E316B82-8A25-43AE-A1C5-

3785124EA6AE

Platypterygius sachicarum Páramo, 1997

Protoichthyosaurus applebyi Lomax et al., 2017

Protoichthyosaurus prosaxalis Appleby, 1979

Qianichthyosaurus xingyiensis Yang et al., 2013

Qianichthyosaurus zhoui Li, 1999

Quasianosteosaurus vikinghoegdai Maisch and 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 and Manabe, 2004) Shonisaurus popularis Camp, 1976 Simbirskiasaurus birjukovi Otschev and Efimov, 1985 Sisteronia seeleyi Fischer et al., 2014b Stenopterygius aaleniensis Maxwell et al., 2012 Stenopterygius quadriscissus (Quenstedt, 1858) Stenopterygius triscissus (Quenstedt, 1858) Stenopterygius uniter von Huene, 1931a 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, 1931b) 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, 1999a 1999a Undorosaurus gorodischensis Efimov, 1999a Efimov p 52 [Epivirgatites nikitini Ammonite Biozone (Volgian, Upper Jurassic, Jurassic); Undory, Volga Oblast, Russia.] 2012 Cryopterygius kristiansenae Druckenmiller Druckenmiller et al. p 313 [Slottsmøya Member, Agardfjellet Formation (middle Volgian, Upper Jurassic, Jurassic); Janusfjellet, Spitsbergen, Svalbard (UTM WGS84 et al., 2012 LSID 33X 0518842 8696067).] LSID: URN:LSID:ZOOBANK.ORG:PUB:8791DF9D-E15B-4470-A02A-F05ECC3BB7D6 fide Zverkov and Efimov (2019) 2019 Undorosaurus gorodischensis Efimov, 1999a Zverkov and Efimov p 1189 Undorosaurus kielanae (Tyborowski, 2016) 2016 Cryopterygius kielanae Tyborowski, 2016 Tyborowski p 793 [Sławno Limestone Member, Kcynia Formation (uppermost

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).]

Zverkov and Efimov p 1187

? 2019 Undorosaurus kielanae (Tyborowski, 2016)

Undorosaurus nessovi Efimov, 1999a

Undorosaurus trautscholdi Arkhangelsky and 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 and Matzke, 1998

Xinminosaurus catactes Jiang et al., 2008

References

- Appleby, R. M. (1979). 'The Affinities of Liassic and Later Ichthyosaurs'. In: *Palaeontology* 22.4, pp. 921–946.
- Arkhangelsky, M. S. (1997). 'On a new genus of ichthyosaurs from the Lower Volgian Substage of the Saratov, Volga Region'. In: *Paleontologicheskii Zhurnal* 1997.1, pp. 87–91.
- Arkhangelsky, M. S. (2001). 'On a New Ichthyosaur of the Genus *Otschevia* from the Volgian Stage of the Volga Region near Ulyanovsk'. In: *Paleontological Journal* 35.6, pp. 629–635.
- Arkhangelsky, M. S., A. O. Averianov, E. M. Pervushov, V. Y. Ratnikov and N. Y. Zozyrev (2008). 'On Ichthyosaur Remains from the Cretaceous of the Voronezh Region'. In: *Paleontological Journal* 42.3, pp. 287–291. DOI: 10.1134/
- Arkhangelsky, M. S. and N. G. Zverkov (2014). 'On a New Ichthyosaur of the Genus *Undorosaurus*'. In: *Proceedings of the Zoological Institute RAS* 318.3, pp. 187–196.
- Arkhangelsky, M. S. (1998). 'On the Ichthyosaurian Genus *Platypterygius*'. In: *Paleontological Journal* 32.6, pp. 611–615.
- Bardet, N. and M. S. Fernández (2000). 'A New Ichthyosaur from the Upper Jurassic Lithographic Limestones of Bavaria'. In: *Journal of Paleontology* 74.3, pp. 503–511. DOI: 10 . 1017 / S0022336000031760.
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