Updated 9 April 2024 **■** COMMENTS

#### Order CYPRINIFORMES

Loaches

## Family **COBITIDAE**

Swainson 1838



Acantopsis bruinen. Photograph by Zachary Randall. From: Boyd, D. A., S. Nam, T. Phanara and L. M. Page. 2018. Acantopsis bruinen, a new species of horseface loach from Southeast Asia (Teleostei: Cobitidae). Ichthyological Exploration of Freshwaters 29 (1): 1–8.

### **Acanthopsoides**

#### Fowler 1934

-oides, Neo-Latin from eᠯdos (Gr. εἶδος), form or shape: similar to Acantopsis but distinguished by its more backward dorsal, more advanced eye, and ventral origin slightly before dorsal

Acanthopsoides delphax Siebert 1991 délphax (Gr. δέλφαξ), mother pig or piglet (depending on the source; Siebert selects the latter), referring to its small size and similarity to Acantopsis choirorhynchos (=dialuzo-na), which was named for its long, pig-like snout (cholros, from χοῖρος, is a young pig or porker)

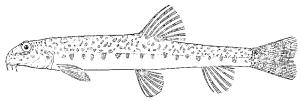
Acanthopsoides gracilentus (Smith 1945) gracilis (L.), thin or slender; -lentus (L.), full of or abounding in, referring to its very elongate and strongly compressed body

Acanthopsoides gracilis Fowler 1934 Latin for thin or slender, referring to its elongate, compressed body

Acanthopsoides hapalias Siebert 1991 hapalias (Gr. ἀπαλίας), sucking pig, referring to its small size and similarity to Acantopsis choirorhynchos (=dialuzona), which was named for its long, pig-like snout (choĨros, from χοῖρος, is a young pig or porker)

**Acanthopsoides molobrion Siebert 1991** *molóbrion* (Gr. μολόβριον), young of the wild swine, referring to its small size and similarity to *Acantopsis choirorhynchos* (=dialuzona), which was named for its long, pig-like snout (choĨros, from χοῖρος, is a young pig or porker)

**Acanthopsoides robertsi** Siebert 1991 in honor of American ichthyologist Tyson R. Roberts (b. 1940), who led survey during which holotype was collected



Acanthopsoides gracilentus, holotype. Illustration by Aime M. Awl. From: Smith, H. M. 1945. The fresh-water fishes of Siam, or Thailand. Bulletin of the United States National Museum No. 188: i–xi + 1–622, Pls. 1–9.

## **Acantopsis**

#### van Hasselt 1823

ópsis (Gr. ὄψις), appearance: referring to similarity to Acantophthalmus¹ (proposed in the same publication, now a synonym of Cobitis) but distinguished by erectile spine in front of eye rather than beneath it

Acantopsis bruinen Boyd, Nam, Phanara & Page 2018 named for the River Bruinen, or Loudwater, of Rivendell and the flood that took the form of great horses in Tolkien's *The Fellowship of the Ring*, alluding to the common name "horseface loach" for the genus (David A. Boyd, pers. comm.)

Acantopsis dialuzona van Hasselt 1823 etymology not explained nor evident; spelled dialyzona on van Hasselt's original drawing, so perhaps from diálysis (Gr. διάλυσις), dissolution or separation, and zona (L.), belt or girdle, referring in some way to lack of markings or bands on specimen he illustrated (living specimens have 8–9 obscure dark-gray spots on sides)

**Acantopsis dinema** Boyd & Page 2017 di- (Gr. prefix), from dýo (δύο), two;  $n \dot{e} m a$  (Gr.  $v \ddot{\eta} \mu \alpha$ ), thread or yarn, referring to the "usual" presence of two pairs of labial barbels

**Acantopsis ioa Boyd & Page 2017** apparent misspelling of *iós* (Gr. ióς), arrow or dart, referring to its relative slenderness compared with congeners

**Acantopsis octoactinotos Siebert 1991** octo, from oktố (Gr. ὀκτώ), eight; aktinōtós (Gr. ἀκτινωτός), furnished with rays, referring to modal number of branched dorsal-fin rays

Acantopsis rungthipae Boyd, Nithirojpakdee & Page 2017 in honor of Rungthip "Kae" Plongsesthee (1978–2014), a "dear friend, close colleague, a Ph.D. student of Dr. F. W. H. Beamish at Burapha University, Bangsaen, Thailand, and an extremely enthusiastic ichthyologist who is greatly missed by her many friends" (she died from breast cancer)

Acantopsis spectabilis (Blyth 1860) Latin for notable or showy, described as a "very prettily marked fish"

Acantopsis thiemmedhi Sontirat 1999 in honor of Jinda Thiemmedh (1902–1985), former dean of the Faculty of Fisheries, Lasetsart University (Thailand), and Sontirat's first teacher in ichthyology

 $<sup>^1</sup>$  acanthus, from ákantha (Gr. ἄκανθα), spine; ophthalmós (Gr. ὀφθαλμός), eye, referring to erectile spine below eye.



Bibarba parvoculus, female. From: Wu, T.-J., J. Yang and L.-H. Xiu. 2015. A new species of Bibarba (Teleostei: Cypriniformes: Cobitidae) from Guangxi, China. Zootaxa 3905 (1): 138–144.

#### Bibarba

# Chen & Chen 2007 tautonymous with *B. bibarba*

**Bibarba bibarba** Chen & Chen 2007 bi-, from bis (L.), twice; barba (L.), beard, referring to two pairs of barbels, which distinguishes it from the similar *Cobitis* 

Bibarba parvoculus Wu, Yang & Xiu 2015 parvus (L.), small; oculus (L.), eye, referring to its smaller eyes compared with B. bibarba

Bibarba wenliuensis Yang, Chen & Li 2020 -ensis, Latin suffix denoting place: Wenliu Township, Qiubei County, Yunnan Province, China, where type locality (a seasonal pond connected to subterranean waters) is situated

## **Canthophrys**

#### Swainson 1838

canth, from ákantha (Gr. ἄκανθα), spine; ophrýs (Gr. ὀφρύς), eyebrow, referring to erectile spine beneath eye

Canthophrys gongota (Hamilton 1822) presumably a local Gangetic name for this species in India



Canthophrys gogota. Hamilton's original illustration, unpublished at the time, reproduced in: Britz, R. 2019. Francis Hamilton's Gangetic Fishes in colour. A new edition of the 1822 monograph, with reproductions of unpublished coloured illustrations. Ray Society, London: 1–48, i–vii, 1–405, i–vii, Pls. 1–228.

### **Cobitis**

#### Linnaeus 1758

from  $k\bar{o}b\tilde{l}tis$  (κωβῖτις), ancient Greek name for small fishes that bury in the bottom and/or are like a gudgeon or goby; the name was first applied to loaches by Rondelet in 1555

Cobitis afifeae Freyhof, Bayçelebi & Geiger 2018 in honor of Afife Jale (1902–1941), a stage actress, best known as the first Muslim theatre actress in Turkey

Cobitis aliyeae Freyhof, Bayçelebi & Geiger 2018 in honor of Fatma Aliye Topuz (1862–1936), an important early Turkish novelist, columnist, essayist, women's rights activist and humanitarian

Cobitis almadae Doadrio, Sousa-Santos & Robalo 2023 in honor of researcher Vitor Almada who, "with an iron will and overcoming his birth blindness, dedicated his life to the study and conservation of the rivers and fauna of Portugal," where this loach occurs [although named after a man, "ae" is an acceptable way to form a genitive from nouns that end in "a"]

Cobitis amphilekta Vasil'eva & Vasil'ev 2012 amphilekta (Gr. ἀμφίλεκτα), spoken both ways (hence doubtful or confused), referring to its confused taxonomic history, with specimens identified by different authors as three different species belonging to two genera [probably extinct]

Cobitis anabelae Freyhof, Bayçelebi & Geiger 2018 in honor of Anabel

Perdices, Museo Nacional de Ciencias Naturales (Madrid, Spain), who has dedicated parts of her scientific life to research on the diversity and phylogeny of the genus *Cobitis* 

Cobitis arachthosensis Economidis & Nalbant 1996 -ensis, Latin suffix denoting place: River Arachthos, near Akropotamia village, Epirus, Greece, type locality

Cobitis arenae (Lin 1934) of arena (L.), sand, referring to its sandysubstrate habitat and sand-burrowing behavior

Cobitis atlantica Doadrio, Sousa-Santos, Robalo & Perea 2023 -ica (L.), belonging to: northern Atlantic drainages of the Iberian Peninsula, from Minho to Alcoa, where it occurs

Cobitis australis Chen, Chen & He 2013 Latin for southern, referring to its distribution in Pearl River of South China

Cobitis avicennae Mousavi-Savet, Vatandoust, Esmaeili, Geiger & Freyhof 2015 in honor of Persian polymath Abū 'Alī al-Husayn ibn 'Abd Allāh ibn Sinā (ca. 980–1037), commonly known by his Latinized name Avicenna, who wrote almost 450 treatises on a wide range of subjects

Cobitis baishagensis Chen, Sui, Liang & Chen 2016 -ensis, Latin suffix denoting place: Baisha County, Hainan Province, southern China, where type locality (Nandujiang River in the Hainandao Islands) is situated [name published online in 2015 but not available until 2016]

Cobitis battalgilae Bacescu 1962 in honor of Turkish ichthyologist Fahire Battalgil (later Battalgazi) (1905–1948) [originally spelled battalgili; emended spelling, since name honors a woman, is technically forbidden by ICZN 32.5.1 but appears to be in prevailing usage]

**Cobitis bilineata** Canestrini 1865 bi-, from bis (L.), twice; *lineata* (L.), lined, referring to two continuous brown bands from head to caudal-fin base

**Cobitis bilseli** Battalgil 1942 in honor of Cemil Bilsel (1879–1949), Rector of the University of Istanbul, for his interest in and support of the study of the fauna of Turkey

Cobitis biwae Jordan & Snyder 1901 of Lake Biwa, the largest lake in Japan, where this loach "abounds" (at least in 1901)

**Cobitis brachysoma** Chen & Chen 2018 brachýs (Gr. βραχύς), short;  $s\delta ma$  (Gr. σῶμα), body, referring to small body size (up to 60 mm SL in females) compared with congeners

Cobitis brevifasciata (Kim & Lee 1995) brevis (L.), short; fasciatus (L.), banded, referring to vertical bars on lower sides of body

Cobitis brevipinna (Chen & Chen 2017) brevis (L.), short; pinna (L.), fin, referring to short dorsal fin, shorter than length of head

Cobitis calderoni Bacescu 1962 in honor of Enrique C. Calderón, chief engineer, Station Centrale d'Hydrobiologie de Madrid, who collected holotype

**Cobitis choii** Kim & Son 1984 in honor of Ki-Chul Choi (1910–2002), Seoul National University, for his contributions to the study of Korean freshwater fishes

Cobitis crassicauda Chen & Chen 2013 crassus (L.), thick; cauda (L.), tail, referring to short and thick caudal peduncle compared with long and slender caudal peduncle of *C. stenocauda* 

Cobitis dalmatina Karaman 1928 -ina (L. suffix), pertaining to: Dalmatia, Croatia, where type locality (Cetina River drainage) is situated

Cobitis delicata Niwa 1937 Latin for dainty, allusion not explained, perhaps referring to small size (75 mm TL) and slender, compressed body

Cobitis derzhavini Vasil'eva, Solovyeva, Levin & Vasil'ev 2020 in honor of Russian ichthyologist-hydrobiologist Alexander Nikolaevich Derzhavin (1878–1963, also spelled Derjavin), for his "significant" (translation) contribution to the study of fishes of Azerbaijan (where this loach is endemic) and the Caspian Sea basin, and who prepared the first catalog of Azerbaijani freshwater fishes in 1949

**Cobitis dolichorhynchus Nichols 1918** dolichós (Gr. δολιχός), long; rhynchus, from rhýnchos (Gr. ῥύγχος), snout, perhaps referring to tip of snout overhanging mouth

Cobitis dorademiri Erk'akan, Özdemir & Özeren 2017 in honor of Dora Demir Özdemir, son of the second author

Cobitis elazigensis Coad & Sarieyyüpoglu 1988 -ensis, Latin suffix denoting place: Elazig Province, Turkey, type locality

Cobitis elongata Heckel & Kner 1858 Latin for prolonged, referring to its elongate body shape compared with that of *C. taenia* 

**Cobitis elongatoides Bacescu & Mayer 1969** -oides, Neo-Latin from  $e\bar{l}dos$  (Gr. ε $\bar{l}\delta$ oς), form or shape: proposed as a variety of *C. elongata* endemic to the Danube basin

Cobitis emrei Freyhof, Bayçelebi & Geiger 2018 in honor of Yunus Emre (ca. 1238–1320), folk poet, philosopher and Sufi mystic, considered to be the pioneer of Turkish poetry in Anatolia

Cobitis erkakanae Freyhof, Bayçelebi & Geiger 2018 in honor of Füsun Erk'akan, Hacettepe University (Ankara, Turkey), for her contribution to the exploration of the species diversity of Cobitis

Cobitis evreni Erk'akan, Özeren & Nalbant 2008 in honor of Evren Erk'akan, son of the senior author

Cobitis fahireae Erk'akan, Atalay-Ekmekçi & Nalbant 1998 in memory of "one of the greatest ichthyologists of Turkey," Fahire Battalgil (later Battalgazi, 1902–1948)

Cobitis faridpaki Mousavi-Sabet, Vasil'eva, Vatandoust & Vasil'ev 2011 in honor of Iranian ichthyologist Farhad Faridpak (1911–1996), who studied Caspian Sea fishes his entire life

Cobitis fasciola Chen & Chen 2013 fasciola, diminutive of fascia (L.), band, referring to 12–16 vertical bands on sides

Cobitis fimbriata (Chen & Chen 2017) Latin for fringed, said to refer to its lateral body coloration (with a row of 8–10 long, sparse broad vertical stripes below lateral midline behind dorsal fin), but the adjective more accurately reflects its dorsal coloration, with a "conspicuous black stripe from the occiput through the dorsal fin to the caudal fin, with a surface pigment containing 19–20 slightly large conspicuous blotches"

Cobitis gladkovi Vasil'ev & Vasil'eva 2008 in honor of Nikolay Alekseyevich Gladkov (1905–1975), who "worked for many years in the Zoological Museum of Moscow State University and made a considerable contribution to the taxonomy of spined loaches of the genus Cobitis" (translation)

Cobitis gracilis Chen & Chen 2016 Latin for thin or slender, referring to its slender body

**Cobitis guttatus** (Nguyen 2005) Latin for spotted or speckled, referring to three rows of black spots along back and body [provisionally included here; described in *Acantopsis* but apparently belong in an unnamed genus close to *Cobitis*<sup>2</sup>]

Cobitis hankugensis Kim, Park, Son & Nalbant 2003 -ensis, Latin suffix denoting place: Hankug, Korean common name of Korea, where it is endemic

**Cobitis hellenica Economidis & Nalbant 1996** Latinized form of *hellenikós* (Gr. ἐλληνικός), adjective meaning Greek, referring to its distribution in western Greece

Cobitis hereromacula Chen, Sui, Liang & Chen 2016 héteros (Gr. ἔτερος), other (i.e., different); macula (L.), spot, referring to color pattern of irregular speckles on back and sides, oval or triangular blotches on upper part of body and vertical elongated triangular blotches on lower, with a row of irregular speckles in between [based on etymology given by the authors, name should be spelled heteromacula, but is

spelled with an "r" throughout paper, so that spelling is retained]

Cobitis herzegoviniensis Buj & Šanda 2014 -ensis, Latin suffix denoting place: Bosnia and Herzegovina where type locality (Lištica River in Mostarsko blato karstic field) is situated

Cobitis hugowolfeldi (Nalbant 1993) in memory of Hugo Wolfeld, Bucharest, Romania, "most able" aquarium-fish breeder and amateur ichthyologist

Cobitis illyrica Freyhof & Stelbrink 2007 feminine adjectival form of Illyricum, historial Roman province where type locality (Imotsko polje, Croatia) is situated

Cobitis indus Eagderi, Secer & Freyfof 2022 name of the Dalaman River (Turkey) in classical antiquity, only known area of occurrence

**Cobitis jadovaensis Mustafic & Mrakovcic 2008** -ensis, Latin suffix denoting place: Jadova River, Croatia, where holotype was found in a drying refuge pond

Cobitis joergbohleni Freyhof, Bayçelebi & Geiger 2018 in honor of German biologist Jörg Bohlen (b, 1965), Academy of Science of the Czech Republic (Libechov), who has dedicated his scientific life to research on the diversity, phylogeny and biology of loaches, especially of the genus Cobitis

Cobitis kaibarai Nakajima 2012 in honor of Ekiken Kaibara (1630–1714), the "first real naturalist and biologist in Japan," and the first to record the distribution of cobitid loaches from Chikushi (modern-day Fukuoka Prefecture), Kyushu Island, Japan

Cobitis kellei Erk'akan, Atalay-Ekmekçi & Nalbant 1998 in honor of ichthyologist Ali Kelle, Dicle University (Diyarbakir, Turkey), who donated type [probably extinct]

Cobitis koreensis Kim 1975 -ensis, Latin suffix denoting place: Korea, where it is endemic

**Cobitis laoensis** (Sauvage 1878) -ensis, Latin suffix denoting place: Laos, where type locality is situated (although the one specimen collected may have actually been from Vietnam, where this loach is present today, as the border between the two countries has changed since 1878)

Cobitis laterimaculata Yan & Zheng 1984 lateralis (L.), of the side; maculata (L.), spotted, referring to small scattered dark speckles on dorsolateral surface and/or 16–20 blotches below lateral midline

Cobitis lebedevi Valil'eva & Valis'ev 1985 in honor of Soviet ichthyologist Vladimir Dmitrievich Lebedev (1915–1975), who discovered the first fossil remains of Cobitis

**Cobitis leptosoma** Chen, Sui, He & Chen 2015 leptós (Gr. λεπτός), slender; sốma (Gr. σῶμα), body, referring to its elongate, laterally compressed body

Cobitis levantina Krupp & Moubayed 1992 -ina (L. suffix), pertaining to: the northern Levant (i.e., Turkey, Syria, Lebanon), where this loach occurs

Cobitis linea (Heckel 1847) Latin for line, referring to the "dark center line" (translation) on its sides

Cobitis longibarba (Chen & Chen 2005) longus (L.), long; barba (L.), beard, referring to its long maxillomandibular barbels

Cobitis longicorpus Kim, Choi & Nalbant 1976 longus (L.), long; corpus (L.), body, referring to its longer body length (up to 179 mm TL) compared with congeners

Cobitis lutheri Rendahl 1935 in honor of Rendahl's friend, zoologist Alexander Ferdinand Luther (1877–1970), University of Helsinki, who collected holotype

**Cobitis macrostigma Dabry de Thiersant 1872** *macro-*, from *makrós* (Gr. μακρός), long or large; *stígma* (Gr. στίγμα), mark or spot, presumably referring to seven oval black spots symmetrically arranged on lateral line

<sup>&</sup>lt;sup>2</sup> Kottelat, M. 2013. The fishes of the inland waters of southeast Asia: a catalogue and core bibliography of the fishes known to occur in freshwaters, mangroves and estuaries. Raffles Bulletin of Zoology Supplement No. 27: 1–663.

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Cobitis magnostriata Nakajima 2012 magnus (L.), great; striata, referring to C. striata, having the largest body and "most awesome appearance" in the Japanese C. striata complex

Cobitis maroccana Pellegrin 1929 -ana (L.), belonging to: described from Morocco

Cobitis matsubarae Okada & Ikeda 1939 in honor of Kiyomatsu Matsubara (1907–1968), Imperial Fisheries Institute (Tokyo), for his contributions to Japanese ichthyology [although named after a man, "ae" is an acceptable way to form a genitive from a masculine noun that ends in "a"]

**Cobitis megaspila Nalbant 1993** *mégas* (Gr. μέγας), big; *spílos* (Gr.  $\sigma$ πίλος), spot, presumably referring to jet-black spot at upper part of caudal fin

**Cobitis melanoleuca Nichols 1925** mélanos (Gr. μέλανος), genitive of mélas (μέλας), black; leuca-, from leukós (Gr. λευκός), white, presumably referring to its "more boldly marked" coloration compared with C. sinensis

**Cobitis meridionalis Karaman 1924** Latin for southern, allusion not explained; described as a subspecies of *C. taenia*, so probably referring to its distribution south of that taxon

**Cobitis microcephala** Chen & Chen 2011 small-headed, from *mikrós* (Gr. μικρός), small, and  $kephal\acute{e}$  (Gr. κεφαλή), head, referring to its small, slightly laterally compressed head

Cobitis minamorii Nakajima 2012 in honor of Sumio Minamori (1917–?), Hiroshima University, a "pioneer" in the study of Japanese loach speciation

Cobitis minamorii oumiensis Nakajima 2012 -ensis, Latin suffix denoting place: Oumi, old name of Lake Biwa, Japan, type locality

**Cobitis minamorii saninensis Nakajima 2012** -ensis, Latin suffix denoting place: San-in District of eastern Honshu, Japan, main distribution area of this subspecies

Cobitis minamorii tokaiensis Nakajima 2012 -ensis, suffix denoting place: Tokai District of Central Honshu, Japan, main distribution area of this subspecies

Cobitis minamorii yodoensis Nakajima 2012 -ensis, Latin suffix denoting place: Yodo River system, central Honshu, Kyoto and Osaka Prefectures, Japan, type locality

Cobitis minhi Ngô 2008 of Minh Hoa district, Quang Binh province, Vietnam, co-type locality

Cobitis multifasciata Wakiya & Mori 1929 multi- (L.), many; fasciatus (L.), banded, referring to 16 blackish or dark-brown crossbands on sides

Cobitis multimaculata Chen & Chen 2011 multi- (L.), many; maculata (L.), spotted, referring to scattered, small, elongated, oval blotches on sides

Cobitis nalbanti Vasil'eva, Kim, Vasil'ev, Ko & Won 2016 in honor of Romanian ichthyologist Theodor Nalbant (1933–2011), for his "great" contributions to the taxonomy of a number of groups of fishes, including the family Cobitidae, particularly in Korea

Cobitis narentana Karaman 1928 -ana (L.), belonging to: Narenta (Cyrillic spelling of Neretva), referring to Neretva River, Dalmatia (Croatia and Bosnia), type locality

Cobitis nigrolinea (Chen & Chen 2017) nigro-, from niger (L.), dark or black; linea (L.), line, referring to conspicuous black stripe from occiput to caudal fin on back

Cobitis obtusirostra Chen, Sui, He & Chen 2015 obtusus (L.), blunt; rostra, incorrect speling of rostrum (L.), snout, referring to its bluntly rounded snout

Cobitis ohridana Karaman 1928 - ana (L.), belonging to: Lake Ohrid, southern Yugoslavia and eastern Albania, type locality



Cobitis saniae, holotype, female, 84.6 mm SL. From: Eagderi, S., A. Jouladeh-Roudbar, P. Jalili, G. Sayyadzadeh and H. R. Esmaeili. 2017. Taxonomic status of the genus Cobitis Linnaeus, 1758 (Teleostei: Cobitidae) in the southern Caspian Sea basin, Iran with description of a new species. FishTaxa 2 (1): 48–61.

**Cobitis oxycephala** Chen & Chen 2018 sharp-headed, from *oxýs* (Gr.  $\dot{o}\xi\dot{o}\zeta$ ), sharp or pointed, and *kephalḗ* (Gr. κεφαλή), head, referring to its pointed head

Cobitis pacifica Kim, Park & Nalbant 1999 -ica (L.), belonging to: Pacific Ocean drainage of eastern Korea, where it is endemic

Cobitis paludica (de Buen 1930) -ica (L.), belonging to: paludis, genitive of palus (L.), swamp, marsh, bog or fen, probably referring to its occurrence in "ponds, ditches and rice fields" (translation)

Cobitis phrygica Battalgazi 1944 -ica (L.), belonging to: Phrygia, ancient name of west-central Anatolia, or Turkey, where this loach occurs

Cobitis pirii Freyhof, Bayçelebi & Geiger 2018 in honor of Piri Reis (1465–1553), Ottoman admiral, navigator, geographer, and cartographer known for his world maps showing America and the maritime book Kitab-i Bahriye

**Cobitis pontica** Vasil'eva & Vasil'ev 2006 -ica (L.), belonging to: *Póntos Áxeinos*, ancient Greek name (Πόντος Ἄξεινος) of the Black Sea, referring to its occurrence in Veleka River, on the western coast of the Black Sea in Bulgaria

Cobitis pumila Kim & Lee 1987 Latin for dwarfish, referring to its small body size compared with C. koreensis

Cobitis puncticulata Erk'akan, Atalay-Ekmekçi & Nalbant 1998 Latiin for dotted, referring to small dark-gray spots on body and head

Cobitis punctilineata Economidis & Nalbant 1996 punctum (L.), spot; lineata (L.), lined, referring to "great number of dark spots in the middle lateral row"

Cobitis qujiangensis (Chen & Chen 2017) -ensis, Latin suffix denoting place: Qujiang River, Zhejiang Province, China, where it occurs

**Cobitis rara** Chen 1981 Latin for rare or thinly scattered, probably referring to "sparser patches" of brown along horizontal axis of body compared with *C. sinensis* 

Cobitis sakahoko Nakajima & Suzawa 2015 derived from the legendary Japanese weapon Ama-no-sakahoko (=inverted halberd of heaven), which was thrust into the Takachiho Peak of Mt. Kirishima, one of the sources of the Takazaki River, Japan, type locality; the lamina circularis of this loach is a distinctive rectangular plate that resembles a halberd

Cobitis saniae Eagderi, Jouladeh-Roudbar, Jalili, Sayyadzadeh & Esmaeili 2017 in honor of Sania Eagderi, daughter of the first author

Cobitis satunini Gladkov 1935 patronym not identified but probably in honor of Russian zoologist Konstantin Alekseevich Satunin (1853–1916)

Cobitis shikokuensis Suzawa 2006 -ensis, Latin suffix denoting place: Shikoku Island, Japan, where it is endemic

**Cobitis sibirica Gladkov 1935** -*ica* (L.), belonging to: Siberia, described as a Russian subspecies of *C. taenia* 

**Cobitis simplicispina Hankó 1925** *simplex* (L.), onefold or single; *spina* (L.), thorn or spine, referring to single-pronged suborbital spine, compared with double-pronged spine on *C. taenia* and *C. turcica* 

Cobitis sinensis Sauvage & Dabry de Thiersant 1874 -ensis, Latin suffix denoting place: Sinica (China), described from Szechwan, China

Cobitis sipahilerae Erk'akan, Özdemir & Özeren 2017 in honor of Turkish entomologist Füsun Sipahiler (Hacettepe University, Ankara, Turkey), friend of the senior author

Cobitis splendens Erk'akan, Atalay-Ekmekçi & Nalbant 1998 Latin for magnificent or beautiful, referring to its "very beautiful pigmentation"

Cobitis squataeniata Ngô 2008 etymology not explained, perhaps squa-, from the Middle English square; taeniata (L.), banded, referring to band of 8–10 square or rectangular spots on sides [originally spelled squataeniatus but emended to agree with feminine gender of Cobitis; possibly a synonym of C. ylengensis]

**Cobitis stenocauda** Chen & Chen 2013 sténos (Gr. στένος), narrow; cauda (L.), tail, referring to long and slender caudal peduncle compared to short and thick caudal peduncle of *C. crassicauda* 

**Cobitis stephanidisi** Economidis 1992 in memory of Greek ichthyologist Alexander I. Stephanidis (1911–1990), "the first modern explorer of the Greek freshwater fauna"

**Cobitis striata Ikeda 1936** Latin for striated (marked with long, thin parallel streaks), presumably referring to striped color pattern compared with spotted color pattern of *C. taenia* 

**Cobitis striata fuchigamii Nakajima 2012** in honor of Nobuyoshi Fuchigami, Onga River Environment Conservation Monitor, who discovered this loach in the Onga River system, northern Kyushu, Fukuoka Prefecture, Japan

Cobitis striata hakataensis Nakajima 2012 -ensis, Latin suffix denoting place: Hakata, "popular common name" of the Fukuoka City area (Fukuoka Prefecture, Japan) where type locality is situated

Cobitis strumicae Karaman 1955 of Strumica River, Yugoslavia, co-type locality

Cobitis taenia Linnaeus 1758 Latin for band or ribbon, probably referring to laterally compressed body (often colloquially known as "ribbon loach")

Cobitis takatsuensis Mizuno 1970 -ensis, Latin suffix denoting place: Takatsu-gawa River system, Japan, type locality

Cobitis takenoi Nakajima 2016 in honor of Makoto Takeno, Graduate School of Agriculture, Kinki University (Osaka, Japan), who discovered this species

Cobitis tanaitica Bacescu & Mayer 1969 -ica (L.), belonging to: Tana or Tanais, ancient name for the River Don, Ukraine, type locality

Cobitis taurica Vasil'eva, Vasil'ev, Janko, Ráb & Rábová 2005 named for Taurica, ancient Greek (Taurikḗ, Ταυρική) and Latin (Taurica) name for Crimea, referring to distribution in the Crimean Peninsula of Ukraine

**Cobitis tetralineata Kim, Park & Nalbant 1999** tetrá (Gr. τετρά), four; *lineata* (L.), lined, referring to four brownish longitudinal stripes on sides

Cobitis trichonica Stephanidis 1974 -ica (L.), belonging to: Lake Trichonis, Greece, type locality

Cobitis troasensis Freyhof, Bayçelebi & Geiger 2018 -ensis, Latin suffix denoting place: Alexandria Troas, an ancient Greek city located southeast of the modern village Dalyan in the Çanakkale province of Turkey, where type locality is situated

Cobitis turcica Hankó 1925 -ica (L.), belonging to: Turkey, where type locality (Eregli) is situated

Cobitis vardarensis Karaman 1928 -ensis, Latin suffix denoting place: Vardar River, Yugoslavia/Macedonia, type locality

Cobitis vettonica Doadrio & Perdices 1997 -ica (L.), belonging to: the Vettones, historical inhabitants of the sheep-raising area of west-central Spain, which coincides with the range of this species

Cobitis wumingensis Chen, Sui, He & Chen 2015 -ensis, Latin suffix denoting place: River Wuming, River Pearl basin, Wuming County, Guangxi, China, type locality



Koreocobitis naktongensis, holotype, male, 108.3 mm TL. From: Kim, I.-S., J.-Y. Park and T. T. Nalbant. 2000. A new species of Koreocobitis from Korea with a redescription of K. rotundicaudata. Korean Journal of Ichthyology 12 (2): 89–94.

**Cobitis xinjiangensis** (Chen & Chen 2005) -ensis, Latin suffix denoting place: Xinjiang River, Guangfeng County, Jiangxi Province, China, type locality

*Cobitis xui* Tan, Li, Wu & Yang 2019 in honor of Xiake Xu (1587–1641), a travel writer and geographer of the Ming Dynasty who traveled throughout China for more than 30 years, especially in the Pearl River basin, where this loach occurs

Cobitis ylengensis Ngô 2003 -ensis, suffix denoting place: Yleng, a village where it occurs (S. V. Ngô, pers. comm.), Bai Dinh, Town Dan Hoa, Minh Hoa, Quang Bình Province, Vietnam

Cobitis yongdokensis (Kim & Park 1997) -ensis, Latin suffix denoting place: Yongdok-gun, Yongdokoship River basin, type locality

Cobitis zanandreai Cavicchioli 1965 in honor of the late Giuseppe Zanandrea (1907–1965), Istituto di Anatomia Comparata della Università di Bologna, "invaluable advisor and collaborator" (translation), who reported this loach as a distinct taxon in 1964

Cobitis zhejiangensis Son & He 2005 -ensis, Latin suffix denoting place: Zhejiang Province, China, type locality

#### Koreocobitis

#### Kim, Park & Nalbant 1997

referring to Korea, where K. rotundicaudata is endemic, i.e., a Korean Cobitis (original genus)

Koreocobitis naktongensis Kim, Park & Nalbant 2000 -ensis, Latin suffix denoting place: Naktong River at Jugkun-ri village, Korea, type locality

Koreocobitis rotundicaudata (Wakiya & Mori 1929) rotundus (L.), round or circular; caudata (L.), tailed, referring to its rounded caudal fin

## Kottelatlimia

#### Nalbant 1994

-ia (L. suffix), belonging to: ichthyologists Maurice Kottelat (b. 1957) and Kelvin Peng Lim, who described the "extremely interesting" type species, K. katik, in 1992

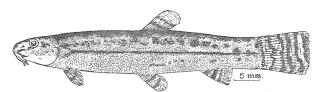
**Kottelatlimia hipporhynchos Kottelat & Tan 2008** híppos (Gr. ἴππος), horse; rhýnchos (Gr. ῥύγχος), snout, referring to the long, horse-like snout of large specimens

Kottelatlimia katik (Kottelat & Lim 1992) Malay word for stunted or short, referring to its minute size (up to 13.5 mm SL in females)

**Kottelatlimia pristes (Roberts 1989)** prístēs (Gr. πρίστης), sawyer (but used here to mean, simply, saw), referring to the serrate pectoral-fin ray of males



Kottelatlimia hipporhynchos, paratype, ~35 mm SL. From: Kottelat, M. and H. H. Tan. 2008. Kottelatlimia hipporhynchos, a new species of loach from southern Borneo (Teleostei: Cobitidae). Zootaxa No. 1967: 63–72.



Lepidocephalichthys coromandelensis. From: Menon, A. G. K. 1992. The fauna of India and the adjacent countries. Pisces. Vol. IV. Teleostei - Cobitoidea. Part 2. Cobitidae. viii + 1–113, Pls. 1–10

## Lepidocephalichthys

#### Bleeker 1863

Lepidocephalus, genus in which type species, L. hasselti, had been placed; ichthýs (Gr. ἰχθύς), fish

**Lepidocephalichthys alkaia Havird & Page 2010** *alkaia* (Gr. ἀλκαία), lion's tail, referring to the tail-like dark stripe on its caudal fin

Lepidocephalichthys annandalei Chaudhuri 1912 in honor of British zoologist-anthropologist Thomas Nelson Annandale (1876–1924), Director, Indian Museum (Calcutta), who collected some of the type specimens

Lepidocephalichthys arunachalensis (Datta & Barman 1984) -ensis, Latin suffix denoting place: Arunachal Pradesh, India, type locality

**Lepidocephalichthys barbatuloides** (Bleeker 1851) -oides, Neo-Latin from  $e\bar{l}dos$  (Gr.  $e\bar{l}\deltaos$ ), form or shape: referring to similarity to and presumed relationship with *Cobitis* (=*Barbatula*) *barbatula* 

Lepidocephalichthys berdmorei (Blyth 1860) in honor of the late Major Hugh Thomas Berdmore (1811–1859), Madras Artillery, Assistant to the Commissioner and in charge of the forests' office, who collected type

Lepidocephalichthys coromandelensis (Menon 1992) -ensis, Latin suffix denoting place: presumably from Coromandel Coast of India, although type locality (Araku Valley, Andrha Pradesh) appears to be north of the Coromandel region

**Lepidocephalichthys eleios Kottelat 2017** *eleios*, from *heleiós* (Gr. ἐλειός) or *héleios* (ἔλειός), marshy, referring to its habitat, in dense vegetation along shores and in mud and vegetal debris at the bottom in marshy lower courses of Lake Indawgyi (Kachin State, Myanmar) and its outlet

Lepidocephalichthys furcatus (de Beaufort 1933) Latin for forked, referring to its forked caudal fin

Lepidocephalichthys goalparensis Pillai & Yazdani 1976 -ensis, Latin suffix denoting place: Goalpara District, Assam State, India, type locality

Lepidocephalichthys guntea (Hamilton 1822) Latinization of Gunté, local Bengali name for this loach in India

**Lepidocephalichthys hasselti (Valenciennes 1846)** in honor of Dutch physician and biologist Johan Coenraad van Hasselt (1797–1823), who explored the colonial Dutch East Indies with his friend Heinrich Kuhl in 1820 and provided an illustration of this species

Lepidocephalichthys irrorata Hora 1921 Latin for covered with granules, referring to sides and fins densely speckled with black

**Lepidocephalichthys jonklaasi (Deraniyagala 1956)** in honor of Rodney Jonklaas (1925–1989), Sri Lankan diver, underwater photographer and zoo administrator

**Lepidocephalichthys kranos Havird & Page 2010** *krános* (Gr. κράνος), helmet, referring to large, exposed scales on top of head

**Lepidocephalichthys longipinnis (Menon 1992)** longus (L.), long; pinnis, Neo-Latin adjective of pinna (L.), fin, i.e., finned, referring to its long dorsal, anal and ventral fins

Lepidocephalichthys lorentzi (Weber & de Beaufort 1916) in honor of Dutch explorer Hendrikus Albertus Lorentz (1871–1944), who collected many fishes in Borneo

Lepidocephalichthys micropogon (Blyth 1860) micro-, from mikrós (Gr.

μικρός), small;  $p \delta g \bar{o} n$  (Gr. πώγων), beard, referring to its small barbels (first rostral pair never extends to anterior nostril, other pairs rarely extend to orbit)

**Lepidocephalichthys thermalis** (Valenciennes 1846) Neo-Latin for of or relating to hot springs or water, described from the hot waters ("eaux chaudes") of Cania, Sri Lanka

**Lepidocephalichthys tomaculum Kottelat & Lim 1992** Latin for sausage, called "sausage loach" by the authors, perhaps referring to its almost uniform depth from head to caudal peduncle

Lepidocephalichthys zeppelini Havird & Tangjitjaroen 2010 named for the rock band Led Zeppelin (1968–1980), referring to the Gibson EDS-1275 double-neck guitar played by Jimmy Page, which reminded the senior author (who was listening to Led Zeppelin when working on the description) of this loach's double (as opposed to single) lamina circularis, the bony process or plate at the base of the first (unbranched) and second (first branched) ray of the pectoral fin in most male specimens of the family

## Lepidocephalus

#### Bleeker 1859

lepidōtós (Gr. λεπιδωτός), scaly; cephalus, from kephalḗ (Gr. κεφαλή), head, referring to distal portion of head, cheek and opercle of L. macrochir covered with fine scales

**Lepidocephalus macrochir** (Bleeker **1854**) *macro-*, from *makrós* (Gr. μακρός), long or large; *chir*, from *cheír* (Gr. χείρ), hand (homologous to the pectoral fin), referring to elongate second pectoral-fin ray in males



Probably first-published image of *Lepidocephalus macrochir*. From: Bleeker, P. 1863–64. Atlas ichthyologique des Indes Orientales Néërlandaises, publié sous les auspices du Gouvernemen colonial néërlandais. Tome III. Cyprins. 1–150, Pls. 102–144. [This plate published 1863.]

**Lepidocephalus nanensis Deein, Tangjitjaroen & Page 2014** -*ensis*, Latin suffix denoting place: Nan River, Chao Phraya basin, Thailand, where most specimens were collected

Lepidocephalus pahangensis (de Beaufort 1933) -ensis, Latin suffix denoting place: Pahang River at Mentakab, Peninsular Malaysia, only known area of occurrence

Lepidocephalus pallens (Vaillant 1902) Latin for pale or pallid, referring to its "generally pale coloration" (translation)

**Lepidocephalus spectrum Roberts 1989** Latin for ghost or apparition, referring to the "ghastly or ghostlike character" of its eyelessness and creamy or pinkish-white coloration

## **Microcobitis**

### Bohlen & Harant 2011

micro-, from mikrós (Gr. μικρός), small, i.e., a small Cobitis, referring to smaller size of M. misgurnoides compared with other members of Cobitis, its original genus

**Microcobitis misgurnoides** (Rendahl 1944) -oides, Neo-Latin from  $e\overline{\textit{idos}}$  (Gr. εἶδος), form or shape: *Misgurnus*, referring to the "very ample development of the barbels" (translation) the genera share

*Microcobitis nuicocensis* (Nguyen & Vo 2005) -ensis, Latin suffix denoting place: lake district of Mount (Núi) Côc, Thái Nguyên Province, Vietnam, type locality [provisionally included here; possibly a synonym of *M. misqurnoides*]



Microcobitis misgurnoides, holotype, 33 mm SL. From: Rendahl, H. 1944. Einige Cobitiden von Annam und Tonkin. Göteborgs Kungliga Vetenskaps-och Vitterhets-Samhälles Handlingar (Ser.



Misgurnus chipisaniensis, holotype, male, 124 mm SL. From: Shedko, S. V. and E. D. Vasil'eva. 2022. A new species of the pond loaches Misgurnus (Cobitidae) from the south of Sakhalin Island. Journal of Ichthyology 62 (3): 356–372.

# **Misgurnus**

#### Lacepède 1803

Latinization of either mis'gurn, misgurne or misgurnos, Old English, French and Spanish vernaculars, respectively, for M. fossilis

Misgurnus amamianus Nakajima & Hashiguchi 2022 -anus (L.), belonging to: Amami Islands, Kagoshima Prefecture, Japan, primary area of occurrence

Misgurnus anguillicaudatus (Cantor 1842) anguilla (L.), eel, presumably referring to its long, eel-like body; caudatus (L.), tailed, probably referring to its "much elongated" caudal fin

Misgurnus bipartitus (Sauvage & Dabry de Thiersant 1874) bi-, from bis (L.), twice; partitus (L.). divided, referring to a narrow black band that divides height of body into two equal parts

Misgurnus buphoensis Kim & Park 1995 -ensis, Latin suffix denoting place: Bupo, or Bupo-ri (presumably same as Bupho), Sunbong County, North Hamgyong Province, North Korea, type locality

Misgurnus chipisaniensis Shedko & Vasil'eva 2022 -ensis, Latin suffix denoting place: Chipisani Lakes near the Chipisani village (now known as Chibisanskiye Lakes near the Ozernoye village), Sakhalin Island, Russia, type locality

Misgurnus dabryanus (Guichenot 1872) -anus (L.), belonging to: Claude-Philibert Dabry de Thiersant (1826–1898), fish culturist, French counsel to China, and student of Chinese fishes, who collected holotype [authorship often attributed to Dabry de Thiersant, who published Guichenot's description]

Misgurnus fossilis (Linnaeus 1758) Latin for digging or dug up, allusion not explained, probably referring to habit of burying itself in the mud, particularly in cold weather

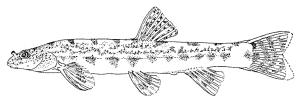
Misgurnus mohoity (Dybowski 1869) adjectival form of mohoj, Buryat vernacular in the Amur River basin f Russia and Mongolia for this species, meaning snake, probably referring to its elongate body shape

Misaurnus multimaculatus Rendahl 1944 multi- (L.), many; maculatus (L.), spotted, referring to head and body "decorated with irregular black spots that give the whole fish a very lively pattern" (translation)

Misgurnus nahangensis (Nguyen & Bui 2009) -ensis, Latin suffix denoting place: Na Hang town, Na Hang district, Tuyen Quang province, Vietnam, type locality

Misgurnus nikolskyi Vasil'eva 2001 in honor of the "famous" (translation) ichthyologist Georgy Vasil'evich Nikolsky (1910–1977), who taught Vasil'eva and studied the fishes of the Far East

Misgurnus tonkinensis Rendahl 1937 -ensis, Latin suffix denoting place: Tonkin, northern region of Vietnam, where type locality (Hanoi) is situ-



Neoeucirrhichthys maydelli, holotype, male, 36 mm SL, with damaged caudal fin reconstructed. From: Bănărescu, P. M. and T. T. Nalbant. 1968. Cobitidae (Pisces, Cypriniformes) collected by the German India expedition. Mitteilungen aus dem Hamburgischen Zoologischen Museum und Institut 65: 327-351, Pls. 1-2

## Neoeucirrhichthys

#### Bănărescu & Nalbant 1968

néos (Gr. νέος), new, referring to presumed close relationship with Eucirrhichthys (=Pangio), i.e., a new Eucirrhichthys

Neoeucirrhichthys maydelli Bănărescu & Nalbant 1968 in honor of German biologist Gustav-Adolph von Maydell (1919–1959), Zoological Expedition of the University of Hamburg, who collected holotype

## **Pangio**

Blyth 1860

Latinization of Pangya, local Gangetic name for P. cinnamomea (=P. pangia) in India

Pangio agma (Burridge 1992) ágma (Gr. ἄγμα), fragment (Burridge translates it as an adjective, fragmented or broken), referring to irregular and broken dark bands on body of adults

Pangio alcoides Kottelat & Lim 1993 -oides, Neo-Latin from eidos (Gr. εἶδος), form or shape: Alca torda, the Razorbill, a colonial seabird, referring to black dorsum and white belly of most specimens

Pangio alternans Kottelat & Lim 1993 Latin for alternating, referring to body color pattern of alternating saddles and blotches

Pangio ammophila Britz, Ali & Raghavan 2012 ámmos or hámmos (Gr. ἄμμος or ἄμμος), sand; phila, from philos (Gr. φίλος), fond of, referring to habitat of type locality

Pangio anguillaris (Vaillant 1902) Latin for eel-like, referring to its long, eel-like body

Pangio apoda Britz & Maclaine 2007 α- (Gr. α), negative prefix, e.g., without; poda, from podós (Gr. ποδός), genitive of poús (πούς), foot, homologous to the ventral (pelvic) fins, referring to their absence (Ralf Britz, pers. comm.)

Pangio atactos Tan & Kottelat 2009 átaktos (Gr. ἄτακτος), irregular, referring to the irregular barred pattern on its body

Pangio bitaimac Tan & Kottelat 2009 Latinization of bee tai mak, a short and thick rice noodle commonly consumed locally in Southeast Asia, referring to this loach's very elongate, worm-shaped body

Pangio bhujia Anoop, Britz, Arjun, Dahanukar & Raghavan 2019 named for its resemblance to Bikaneri bhujia, a popular (in India) crispy noodlelike snack usually made of moth beans, besan (gram flour) and spices



Pangio bhujia, mature female with eggs. From: Anoop, V. K., R. Britz, C. P. Arjun, N. Dahanuka loach lacking dorsal and pelvic fins from India (Teleostei: Cobitidae). Zootaxa 4683 (1): 144–150.

Pangio cuneovirgata (Raut 1957) cuneus (L.), wedge; virgata (L.), banded or streaked, referring to characteristic wedge-shaped bars on body

Pangio doriae (Perugia 1892) in honor of Italian zoologist Giacoma Doria (1840-1913), who collected holotype [although named after a man, "ae" is an acceptable way to form a genitive from a masculine noun that ends in "a"]

Pangio elongata Britz & Maclaine 2007 Latin for prolonged, referring to its elongate, laterally compressed body

Pangio filinaris Kottelat & Lim 1993 filum (L.), thread; naris (L.), nostril, referring to rim of anterior nostril, which is modified into a barbel

Pangio fusca (Blyth 1860) Latin for dusky, dark or swarthy, presumably referring to its "uniform dull brown" coloration

Pangio goaensis (Tilak 1972) -ensis, Latin suffix denoting place: Goa, India, where it is endemic

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Pangio incognito Kottelat & Lim 1993 Italian for unknown, being "discovered" not in the field but in the lab while examining radiographs

Pangio kuhlii (Valenciennes 1846) in memory of Heinrich Kuhl (1797–1821), who died while collecting fauna and flora in Java, including type of this loach; his collections, drawings and manuscripts provided material for Valenciennes and other naturalists

**Pangio lidi Hadiaty & Kottelat 2009** Indonesian word for the rachis (stalk) of the coconut leaf, similar to this loach's slender and elongate shape

**Pangio longimanus Britz & Kottelat 2010** longus (L.), long; manus (L.), hand (homologous to the pectoral fin), referring to the greatly elongated pectoral fin of males

Pangio lumbriciformis Britz & Maclaine 2007 lumbricus (L.), earthworm; formis, Neo-Latin scientific adjective of forma (L.), shape or form, referring to round (in cross section), worm-like body

Pangio malayana (Tweedie 1956) -anus (L.), belonging to: Malaysia, where type locality (Tahan River, Pahang) is situated

Pangio mariarum (Inger & Chin 1962) -arum, commemorative suffix (L.), plural: in honor of the authors' wives, both named Maria [originally spelled mariae; emended spelling, since name honors two women, is forbidden by ICZN 32.5.1 but appears to be in prevailing usage]

Pangio muraeniformis (de Beaufort 1933) muraena (L.), from mýraina (μύραινα), Greek name of Muraena helena and precursor to "moray"; formis, Neo-Latin scientific adjective of forma (L.), shape or form, presumably referring to elongate (and hence eel-like) shape

**Pangio myersi** (Harry 1949) in honor of American ichthyologist George S. Myers (1905–1985), Stanford University, for his interest in and research of Indo-Malayan fishes [author later known as Rofen]

Pangio oblonga (Valenciennes 1846) oblong (i.e., longer than broad), referring to elongated body ("corps allongé")

Pangio pangia (Hamilton 1822) Latinization of Pangya, Gangetic name for this species in India

Pangio pathala Sundar, Arjun, Sidharthan, Dahanukar & Raghavan 2022 from the Sanskrit pâtâla, meaning "below the feet," referring to this loach's subterranean habitat (collected from an overhead waterstorage tank connected to an old dug-out well using an electric water pump in Kerala, India)

Pangio piperata Kottelat & Lim 1993 Latin for peppered, referring to its finely speckled body

**Pangio pulla Kottelat & Lim 1993** Latin for blackish brown, referring to its "dull" coloration and to the blackwaters it inhabits

**Pangio robiginosa** (Raut 1957) presumably a misspelling of *rubiginosa* (L.), rusty, referring to "dirty yellow-brown to bright rusty red" (translation) coloration

**Pangio semicincta** (Fraser-Brunner 1940) semi-, from semis (L.), a half or moiety; cincta (L.), belted or girdled, referring to "tapering patches confined to upper half of the body"

Pangio shelfordii (Popta 1903) in honor of Robert W. C. Shelford (1872–1912), Singapore-born, English-educated naturalist, entomologist and Curator of the Sarawak Museum (Borneo), who presented holotype to the Rijksmuseum van Natuurlijke Historie (Leiden, Netherlands)

Pangio signicauda Britz & Maclaine 2007 signum (L.), mark; cauda (L.), tail, referring to conspicuous color pattern on caudal fin and caudal-fin hase

**Pangio superba** (Roberts 1989) Latin for splendid, referring to it beautiful magenta-and-orange coloration



Paralepidocephalus translucens, ~60 mm SL. From: Liu, S.-W., J.-X. Yang and X.-Y. Chen. 2016. Paralepidocephalus translucens, a new species of loach from a cave in eastern Yunnan, China (Teleostei: Cobitidae). Ichthyylogical Exploration of Freshwaters 27 (1): 61–61.

## **Paralepidocephalus**

Tchang 1935

pará (Gr. παρά), near, i.e., "closely allied" to *Lepidocephalus*but with a scaleless head and body **Paralepidocephalus guishanensis** Li 2004 -ensis, Latin suffix denoting place: Guishan town, Shilin County, Yunnan Province, China, type locality

Paralepidocephalus translucens Liu, Yang & Chen 2016 Latin for clear, transparent or translucent, referring to its appearance when alive (ivory

in 95% ethanol)

Paralepidocephalus yui Tchang 1935 in honor of carcinologist Shou-Chie (or Chao-ch'i) Yu, Fan Memorial Institute of Biology (Peiping, China)

## **Protocobitis**

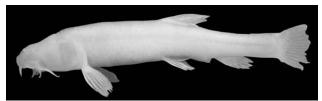
Yang & Chen 1993

prốtos (Gr. πρῶτος), first, hypothesized to be a primitive sister group to the family Cobitidae; Cobitis, type genus of family

**Protocobitis anteroventris** Lan 2013 antero (L.), anterior; ventralis (L.), of the belly, referring to ventral-fin origin anterior to dorsal-fin origin

Protocobitis longicostatus Zhou, Qin, Du & Wu 2024 longus (L.), long; costatus (L.), ribbed, referring to its longer ribs compared with congeners

**Protocobitis polylepis Zhu, Lü, Yang & Zhang 2008** polý (Gr. πολύ), many; *lepis* (Gr. λεπίς), scale, referring to scales covering entire body except head and abdomen, compared with rudimentary scales only along middle of sides of *P. typhlops* 



Protocobitis polylepis, holotype, female, 33 mm SL. From: Zhu, Y., Y.-J. Lü, J.-X. Yang and S. Zhang. 2008. A new blind underground species of the genus *Protocobitis* (Cobitidae) from Guangxi, China. Zoological Research 29 (4): 452–454.

**Protocobitis typhlops Yang, Chen & Lan 1993** typhlós (Gr. τυφλός), blind;  $\acute{o}$ ps (Gr.  $\~{\omega}$ ψ), eye, a cave species with no externally visible eyes

## Quintabarbates

Roberts 2020

quinta (L.), five; barbates, from barba (L.), beard, referring to five pairs of barbels (vs. four pairs on the similar *Pangio*)

**Quintabarbates bicolor Roberts 2020** *bi-*, from *bis* (L.), twice, of two colors, referring to coloration in life: deep longitudinal stripes of iridescent vermillion green above separated by dorsomedian stripe of iridescent orange



Quintabarbates bicolor, photographed after preservation in formalin for several hours and far from showing the full brilliance and extent of iits ridescent orange and green coloration. Photo by Tyson R. Roberts. From: Roberts, T. R. 2020. Quintabarbates bicolor, a new genus and species of cobitid fish from the middle Chindwin basin in Myanmar. aqua, International Journal of Ichthyology 26 (1): 17–20.



Sabanejewia baltica, holotype, male, 80.8 mm TL. From: Witkowski, A. 1994. Morphological characteristics of Sabanejewia aurata (De Filippi, 1865) from the Odra River basin, with description of a new subspecies (Teleostei: Cypriniformes: Cobitidae). Zoologische Abhandlungen (Staatliches Museum für Tierkunde in Dresden) 48 (1): 23–51.

## Sabanejewia

#### Vladykov 1929

-ia (L. suffix), belonging to: Russian zoologist Leonid Pavlovich Sabanejew (also spelled Sabaneev, 1844-1898), an expert in freshwater fish biology and author of *Les poissons de la Russie* 

#### Subgenus Sabanejewia

Sabanejewia aralensis (Kessler 1877) -ensis, Latin suffix denoting place: Aral Sea basin, Eurasia, where it occurs

Sabanejewia aurata (De Filippi 1863) Latin for gold or golden, referring to "beautiful bright golden" coloration (translation) on sides and belly

Sabanejewia balcanica (Karaman 1922) -ica (L.), belonging to: Balkan Peninsula (Black Sea and Aegean Sea basins), where it occurs

Sabanejewia baltica Witkowski 1994 -ica (L.), belonging to: southern Baltic basin (Vistula, Neman and Odra river systems), where it occurs

Sabanejewia bulgarica (Drensky 1928) -ica (L.), belonging to: Bulgaria, where it occurs in the Danube River system

Sabanejewia caucasica (Berg 1906) -ica (L.), belonging to: Caucasus region of Russia (now Azerbaijan and Armenia) and Iran, where it occurs

Sabanejewia kubanica Vasil'eva & Vasil'ev 1988 -ica (L.), belonging to: Kuban River drainage, Russia, where it is endemic

Sabanejewia maeotica Vasil'eva & Vasil'ev 2023 -ica (L.), belonging to: Maeotis, ancient name of the Sea of Azov, in whose basin it occurs

Sabanejewia romanica (Bacescu 1943) -ica (L.), belonging to: Romania, described as a Romanian subspecies of Cobitis (=Sabanejewia) caspia

Sabanejewia vallachica (Nalbant 1957) -ica (L.), belonging to: Vallachica, Romania, where it is endemic

#### Subgenus Andrzewia

Vasil'eva, Solovyeva & Vasil'ev 2022 -ia (L. suffix), belonging to: Polish ichthyologist Andrzej Witkowski, who described *S. baltica* in 1994

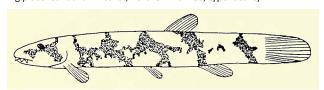
Sabanejewia caspia (Eichwald 1838) named for its occurrence in the Caspian Sea basin

Sabanejewia larvata (De Filippi 1859) Latin for masked, presumably referring to brown streak from eye to end of snout

# Theriodes Kottelat 2012

named for Theriodes Kolpos (or Theriodis Sinus in Latin, Bay of the Beasts), a place name in Ptolemy's (ca. 90–168) *Handbook of Geography*, identified by some as possibly Borneo, where *T. sandakanensis* is endemic

*Theriodes sandakanensis* (Inger & Chin 1962) *-ensis*, Latin suffix denoting place: Sandakan District, northern Borneo, type locality



Theriodes sandakanensis. From: Inger, R. F. and P. K. Chin. 1962. The fresh-water fishes of North Borneo. Fieldiana Zoology 45: 1–268.