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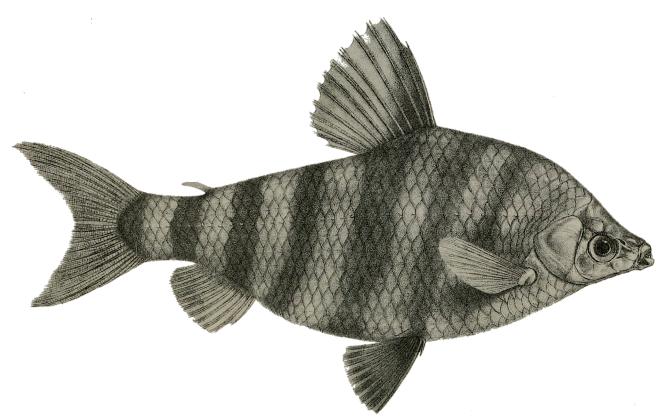
Revised 30 April 2024 🖃 COMMENTS

#### Order CHARACIFORMES

### Toothed Headstanders

# Family ANOSTOMIDAE

Günther 1864



First-published image of *Abramites hypselonotus*. Illustration by George Henry Ford. Günther, A. 1868. Descriptions of freshwater fishes from Surinam and Brazil. Proceedings of the Zoological Society of London 1868 (pt 2) (art. 5): 229–247, Pls. 20–22.

#### Abramites Fowler 1906

-*ites* (Gr. -ίδες), like, referring to "superficial" resemblance to the Common Bream *Abramis brama* (Cypriniformes: Leuciscidae)

Abramites eques (Steindachner 1878) Latin for horseman or rider, allusion not explained, probably referring to oblique saddle-like marking on sides (Steindachner used this name for two other characiforms with saddle-like markings, Nannostomus eques and Hyphessobrycon eques)

Abramites hypselonotus (Günther 1868) high-backed, from hypsēlós (Gr. ὑψηλός), high, and nốtos (Gr. νῶτος), back, referring to its steeped dorsal profile, giving it a high-backed appearance



Possibly first-published image of Anostomoides atrianalis (as Schizodontopsis laticeps, a junior synonym). From: Eigenmann, C. H. 1912. The freshwater fishes of British Guiana, including a study of the ecological grouping of species, and the relation of the fanan of the plateau to that of the lowlands. Memoirs of the Carnegie Museum 5 (1): i–xxii + 1–578, Pls. 1–103.

### Anostomoides

**Pellegrin 1909** -oides, Neo-Latin from eidos (Gr. είδος), form or shape: "closely allied to Anostomus, but with different dentition" (translation)

Anostomoides atrianalis Pellegrin 1909 atri-, from ater (L.), black; analis (L.), anal, referring to blackish anal fin

#### Anostomus Scopoli 1777

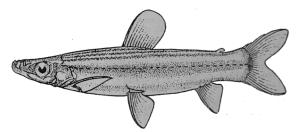
tautonymous with Salmo anostomus Linnaeus 1758, from ano- (Gr.  $\dot{\alpha}$ v $\dot{\alpha}$ ), up or upward, and stóma (Gr.  $\sigma$ τόμ $\alpha$ ), mouth, referring to its upturned (superior) mouth

Anostomus anostomus (Linnaeus 1758) upward-mouthed, from ano-(Gr.  $\dot{\alpha}v\dot{\alpha}$ ), up or upward, and stóma (Gr.  $\sigma\tau\dot{o}\mu\alpha$ ), mouth, referring to its upturned (superior) mouth

Anostomus brevior Géry 1961 Latin for shorter, referring to its shorter body depth compared with A. anostomus

Anostomus longus Géry 1961 Latin for long, referring to its more elongate shape compared with A. anostomus

*Anostomus ternetzi* Fernández-Yépez 1949 in honor of Swiss-born ichthyologist and naturalist Carl Ternetz (1870–1928), who collected holotype



Anostomus ternetzi. From: Fernández-Yépez, A. 1949. Anostomus ternetzi nuevo anostomido de Sur America, colectado en Palital, Estado Guarico, Venezuela. Boletín de la Sociedad Venezolana de Ciencias Naturales 11 (74): 293–295, Pls. 1–4.

#### Gnathodolus Myers 1927

gnáthos (Gr. γνάθος); dólus (Gr. δόλος), trap, referring to lower jaw, which folds upward to close or seal the mouth

Gnathodolus bidens Myers 1927 bi-, from bis (L.), twice; dens (L.), tooth, referring to two hooked, projecting teeth at tip of lower jaw



Gnathodolus bidens, holotype, collected by Carl Ternetz, 13 March 1925. From California Academy of Sciences Type Imagebase. CAS 20087 (ex IU 17670).

#### Hypomasticus Borodin 1929

hypó (Gr. ὑπό), less than, under or beneath; masticus, from mastáx (Gr. μαστάξ), "that with which one chews" (i.e., mouth), referring to inferior mouth of *H. mormyrops* 

*Hypomasticus copelandii* (Steindachner 1875) patronym not identified, probably in honor of Edward Copeland, a Boston volunteer on the Thayer Expedition to Brazil (1865–1866), during which holotype was collected (perhaps the same person as Herbert Copeland; see *Hyphessobrycon copelandi* in Characidae: Stethaprioninae)

Hypomasticus despaxi (Puyo 1943) in honor of French zoologist Raymond Despax (1886–1950), University of Toulouse, where Puyo studied

Hypomasticus julii (Santos, Jégu & Lima 1996) in honor of Brazilian ichthyologist Júlio Garavello, Universidade Federal de São Carlos, for his contributions to the taxonomy of anostomids

Hypomasticus lineomaculatus Birindelli, Peixoto, Wosiacki & Britski 2013 lineo, from linea (L.), line; maculatus (L.), spotted, referring to two rows of longitudinally aligned dark blotches on body

Hypomasticus megalepis (Günther 1863) mégas (Gr. μέγας), big; lepis (Gr.  $\lambda \epsilon \pi i \varsigma$ ), scale, referring to its larger scales compared with Leporinus friderici (considered congeneric at the time)

**Hypomasticus mormyrops (Steindachner 1875)**  $\delta ps$  (Gr.  $\tilde{\omega}\psi$ ), face or appearance, referring to the resemblance of its fleshy snout to that of African osteoglossiform genus *Mormyrus* (Mormyridae)

**Hypomasticus pachycheilus (Britski 1976)** thick-lipped, from *pachýs* (Gr. παχύς), thick, and *cheīlos* (Gr. χεῦλος), lip, referring to its "lábios grossos"



Hypomasticus pachycheilus. From: Britski, H. A. 1976. Sobre uma nova espécie Leporinus da Amazônia. Acta Amazonica 6 (4) (Supl.): 87–89.

Hypomasticus santanai Birindelli & Melo 2020 in honor of Edson Santana, a technician at the Museu de Zoologia da Universidade Estadual de Londrina (MZUEL, Paraná, Brazil) since 1993 and member of expedition during which holotype was colleted, for his help in collecting fishes, preparing vertebrate specimens, and maintaining the collections of the MZUEL; his "enthusiasm captivated generations of staff and students of the MZUEL"

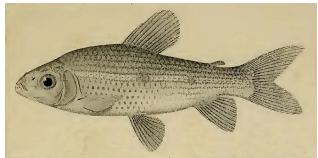
*Hypomasticus steindachneri* (Eigenmann 1907) in honor of Austrian ichthyologist Franz Steindachner (1834–1919), who described this species as *Leporinus affinis* in 1875 but used a preoccupied name (*L. affinis* Günther 1864)

*Hypomasticus thayeri* (Borodin 1929) patronym not identified, presumably in honor of American philanthropist and financier Nathaniel Thayer, Jr. (1808–1883), who sponsored a 15-month expedition to Brazil (1865–1866) that secured a rich collection of new species (studied, in large part, by Steindachner and Eigenmann), including holotype of this one

### Insperanos

Assega, Sidlauskas & Birindelli 2021 insperens (L.), unexpected, referring to the "surprising discovery of an ancient lineage" of Anostomidae, represented by *I*. (formerly *Anostomoides*) nattereri; anos, four first letters of *Anostomus*, type genus of family, following a previous practice (*Petulanos, Pseudanos*)

*Insperanos nattereri* (Steindachner 1876) in honor of Austrian naturalist Johann Natterer (1787–1843), who explored South America and collected specimens for 18 years, including holotype of this species



Insperanos nattereri. Illustration by Eduard Konopicky. From: Steindachner, F. 1876. Ichthyologische Beiträge (V). Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe 74 (I. Abth.): 49–240, Pls. 1–15.

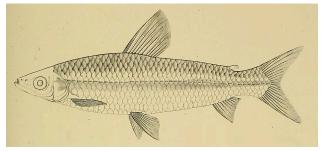
### Laemolyta Cope 1872

*laemo*, from *laimós* (Gr. λαιμός), throat; *lyta*, presumably from *lytós* (Gr. λυτός), that which may be loosened or untied, referring to branchiostegal membranes of *L. taeniata*, which are entirely free from isthmus

Laemolyta fasciata Pearson 1924 Latin for banded, referring to 7–8 bars on sides [*species inquirenda*, based on a juvenile, possibly a *Leporinus*, provisionally included here]

*Laemolyta fernandezi* Myers 1950 in honor of Venezuelan ichthyologist Augustin Fernández-Yépez (1916–1977), who collaborated with Myers in studying anostomids

Laemolyta garmani (Borodin 1931) in honor of American ichthyologistherpetologist Samuel Garman (1843–1927), Harvard University, who



First-published image of *Laemoylta taeniata*. From: Kner, R. 1859. Zur Familie der Characinen. III. Folge der Ichthyologischen Beiträge. Denkschriften der Kaiserlichen Akademie der Wissenschaften in Wien, Mathematisch-Naturwissenschaftliche Classe 17: 137–182, Pls. 1–9.

revised Anostomus and proposed Schizodontopsis (a junior synonym of Laemolyta) in 1890

Laemolyta orinocensis (Steindachner 1879) -ensis, Latin suffix denoting place: Orinoco River basin, Venezuela, where it is endemic

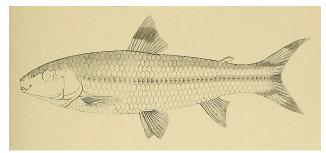
Laemolyta proxima (Garman 1890) Latin for nearest or next, referring to its close relationship with and similar appearance to *L. taeniata* 

Laemolyta taeniata (Kner 1858) Latin for banded, referring to wide black band extending from head to tail

#### Leporellus Lütken 1875

-ellus, a Latin diminutive, proposed as a subgenus of Leporinus

*Leporellus pictus* (Kner 1858) Latin for painted or colored, probably referring to its yellow, orange and black dorsal and caudal fins



First-published image of *Leporellus pictus*. From: Kner, R. 1859. Zur Familie der Characinen. III. Folge der Ichthyologischen Beiträge. Denkschriften der Kaiserlichen Akademie der Wissenschaften in Wien, Mathematisch-Naturwissenschaftliche Classe 17: 137–182, PIs. 1–9.

*Leporellus vittatus* (Valenciennes 1850) Latin for banded, referring to indistinct blackish band along lateral line and/or black bands on dorsal and caudal fins

### Leporinus Agassiz 1829

Latin for "of a hare," presumably referring to elongate incisors of L. novemfasciatus (=fasciatus), reminiscent of those in the mammal family Leporidae

Leporinus acutidens (Valenciennes 1837) acutus (L.), sharp or pointed; dens (L.), tooth, referring to its sharp teeth, compared with blunt teeth of L. obtusidens

*Leporinus affinis* Günther 1864 Latin for related, described as closely allied to *L. fasciatus* but with fewer bands

*Leporinus agassizii* Steindachner 1876 in honor of Swiss-born American zoologist-geologist Louis Agassiz (1807–1873), then the leading authority on Brazilian fishes, who led the Thayer Expedition (1865–1866) to Brazil, which provided Steindachner with many specimens to study

*Leporinus altipinnis* Borodin 1929 *altus* (L.), high; *pinnis*, scientific Neo-Latin adjective of *pinna* (L.), fin, i.e., finned, referring to its high, sharply pointed dorsal fin

Leporinus amae Godoy 1980 in honor of AMA (Assessoria Para Meio Ambiente), an agency of the Brazilian energy company Eletrosul, for promoting health and environmental initiatives in southern Brazil

*Leporinus amazonicus* Santos & Zuanon 2008 -*icus* (L.), belonging to: Rio Amazonas of Brazil, where entire type series was collected

**Leporinus amblyrhynchus Garavello & Britski 1987** blunt-snouted, from *amblýs* (Gr. ἀμβλύς), blunt, and *rhýnchos* (Gr. ῥύγχος), snout, referring to its rounded snout

*Leporinus apollo* Sidlauskas, Mol & Vari 2011 named after Apollo, the god of sun, music and healing in Greek and Roman mythology, referring to extremely slender form that is reminiscent of the arrow that was Apollo's favored weapon and predominant symbol, and yellow cast of body and fins and rounded shape of the lateral markings, which evoke

the sun that was one of Apollo's primary aspects

*Leporinus arcus* **Eigenmann 1912** Latin for bow, probably referring to smaller of two lateral bands, "arched from the eye downward and back along the lower margin of the caudal peduncle to the caudal"

*Leporinus arimaspi* Burns, Frable & Sidlauskas 2014 named after the mythical Arimaspi people of northern Scythia in Greek mythology, referring to large black spot at middle of body, reminiscent of the single, centrally located eye that the Arimaspi people were said to possess

*Leporinus aripuanaensis* Garavello & Santos 1981 -*ensis*, Latin suffix denoting place: Aripuanã River, type locality, and/or Aripuanã River basin, Mato Grosso, Brazil, where it is endemic

Leporinus bahiensis Steindachner 1875 -ensis, Latin suffix denoting place: Bahia, Brazil, where it is endemic

*Leporinus bimaculatus* Castelnau 1855 *bi-*, from *bis* (L.), twice; *maculatus* (L.), spotted, referring to two large black spots on lateral line [*species inquirenda*, possibly a synonym of *L. friderici*, provisionally included here]

*Leporinus bistriatus* Britski **1997** *bi-*, from *bis* (L.), twice; *striatus* (L.) furrowed or grooved (i.e., striped), referring to two wide longitudinal stripes on body

*Leporinus bleheri* Géry 1999 in honor of German explorer and ornamental-fish wholesaler and supplier Heiko Bleher (b. 1944), who collected holotype

*Leporinus boehlkei* Garavello 1988 in honor of the late James E. Böhlke (1930–1982), former Curator of Fishes at the Academy of Natural Sciences of Philadelphia, who helped collect holotype in 1969 and loaned specimens to Garavello for study

*Leporinus britskii* Feitosa, Santos & Birindelli 2011 in honor of Brazilian ichthyologist Heraldo A. Britski, Universidade de São Paulo, for his "valuable contribution to our knowledge of Neotropical fishes, and especially for his important role in our understanding of *Leporinus* taxonomy"

*Leporinus brunneus* Myers 1950 Medieval Latin for brown, referring to its dull, yellowish-brown color in alcohol

**Leporinus cylindriformis Borodin 1929** cylindros, from kýlindros (Gr. κύλινδρος), cylinder; *formis*, Neo-Latin scientific adjective of *forma* (L.), shape or form, referring to slender, nearly round body shape

**Leporinus desmotes Fowler 1914** desmotes (Gr. δεσμώτης), prisoner, referring to multiple dark cross-bands, "suggestive of convict garb," i.e., striped uniforms that American prisoners used to wear in the 19th and early 20th centuries

Leporinus ecuadorensis Eigenmann & Henn 1916 -ensis, Latin suffix denoting place: Ecuador, where type locality (Río Barranca, near Naranjito) is situated

Leporinus enyae Burns, Chatfield, Birindelli & Sidlauskas 2017 in honor of Irish singer-songwriter Enya (b. 1961, as Eithne Pádraigín Ní Bhraonáin, anglicised as Enya Patricia Brennan), whose "beautiful song 'Orinoco Flow' celebrates the flow of the mighty Orinoco River, which the new species inhabits" [actually, the song has nothing to do with the river; it was named for Orinoco Studios, London, where the song was recorded, and represents a metaphorical musical journey for the team that created and produced Enya's Watermark album, on which the song appeared]

Leporinus fasciatus (Bloch 1794) Latin for banded, referring to 8–11 brown-to-black transverse bands between head and caudal fin

*Leporinus friderici* (Bloch 1794) in honor of Jurriaan François Friderici (1751–1812), Governor General of Suriname, who sent fishes to Bloch, including this one

Leporinus geminis Garavello & Santos 2009 Latin for twin-born, referring to similarity of young specimens to *L. unitaeniatus* 

Leporinus gomesi Garavello & Santos 1981 in honor of João Gomes da



Leporinus fasciatus. Illustration by Johann Friedrich Hennig. From: Bloch, M. E. 1794. Naturgeschichte der ausländischen Fische. Berlin. v. 8: i–iv + 1–174, Pls. 361–396.

Silva, Universidade Federal de São Carlos (Brazil), who collected holotype

*Leporinus gossei* Géry, Planquette & Le Bail 1991 in honor of Jean-Pierre Gosse (1924–2001), curator of vertebrates, Institut Royal des Sciences Naturalles de Belgique, who collected holotype

Leporinus granti Eigenmann 1912 in honor of William Grant, Eigenmann's "most efficient Indian guide" in Guyana, who made many collections of new species, including holotype of this one

Leporinus guttatus Birindelli & Britski 2009 Latin for spotted or dappled, referring to dark blotches scattered over body, more numerous than any known congeners

*Leporinus jamesi* Garman 1929 in honor of student volunteer William James (1842–1910), trained as a physician, later a philosopher (and brother of novelist Henry James), who collected holotype during the Thayer Expedition (1865–1866) to Brazil

Leporinus jatuncochi Ovchynnyk 1971 of Lake Jatun Cocha, Province Napo, Ecuador, type locality

Leporinus klausewitzi Géry 1960 in honor of German ichthyologist Wolfgang Klausewitz (1922–2018), Naturmuseum Senckenberg (Frankfurt), who made two small lots of South American fishes from the Museum's collection available to Géry for study

Leporinus lacustris Amaral Campos 1945 Latin for relating to or associated with lakes (lacustrine), presumably reflecting its local name, *piáu de lagoa* (*piáu* is an indigenous name for *Leporinus* species in eastern Brazil)

Leporinus lebaili Géry & Planquette 1983 in honor of ichthyological colleague and friend Pierre-Yves Le Bail (b. 1954), Institut National de la Recherche Agronomique (Rennes, France), who collected holotype and provided photographs of living specimens and their habitat

*Leporinus leschenaulti* Valenciennes 1850 in honor of French botanist Jean-Baptiste Louis Claude Theodore Leschenault de La Tour (1773– 1826), who, along with entomologist Adolphe Jacques Louis Doumerc (1802–1868), provided holotype

Leporinus maculatus Müller & Troschel 1844 Latin for spotted, referring to large black spots on sides (appearing as transverse bands on some specimens)

*Leporinus marcgravii* Lütken 1875 patronym not identified but clearly in honor of German naturalist and astronomer Georg Marcgrave (also spelled Marggraf, 1610–1644), co-author of *Historia Naturalis Brasiliae* (1648), the first scientific book on the natural history of Brazil

**Leporinus melanopleura Günther 1864** *mélanos* (Gr. μέλανος), genitive of *mélas* (μέλας), black; *pleurá* (Gr. πλευρά) side, referring to broad black band running from gill opening to root of caudal fin, immediately below lateral line

Leporinus melanopleurodes Birindelli, Britski & Garavello 2013 -oides, Neo-Latin from etdos (Gr. εἶδος), form or shape: similar to L. melanopleura

Leporinus melanostictus Norman 1926 mélanos (Gr. μέλανος), genitive of mélas (μέλας), black, and stiktós (Gr. στικτός), spotted, referring to black spot on caudal peduncle

Leporinus microphthalmus Garavello 1989 small-eyed, from mikrós (Gr.

μικρός), small, and *ophthalmós* (Gr. ὀφθαλμός), eye referring to smaller orbit (eye socket) compared to *L. lacustris* 

**Leporinus microphysus Birindelli & Britski 2013** small-bladdered, from *mikrós* (Gr μικρός), small, and *phýsa* (Gr. φύσα), bladder, referring to its small gas bladder

*Leporinus moralesi* Fowler 1942 in honor of biology professor Carlos Morales Machedo (1888–1952), director of the Museo de Historia Natural (Lima, Peru) from 1938–1947

Leporinus multifasciatus Cope 1878 multi- (L.), many; fasciatus (L.), banded, referring to 14 vertical brown bands on sides

Leporinus multimaculatus Birindelli, Teixeira & Britski 2016 multi- (L.), many; maculatus (L.), spotted, referring to many dark blotches on body

*Leporinus niceforoi* Fowler 1943 in honor of Brother Nicéforo Maria (1888–1980), monastic name of Antoine Rouhaire (a Frenchman), Museo del Instituto de La Salle (Bogota), who collected holotype and gifted it, along with other specimens, to the Academy of Natural Sciences of Philadelphia

*Leporinus nigrotaeniatus* (Jardine 1841) *nigro-*, from *niger* (L.), black; *taeniatus* (L.), banded, referring to black band running from below dorsal fin, along lateral line, to base of caudal fin

*Leporinus nijsseni* Garavello 1990 in honor of Dutch ichthyologist Han Nijssen (1935–2013), friend and colleague, Zoölogisch Museum, Amsterdam, who collected holotype

**Leporinus octofasciatus Steindachner 1915** octo-, from oktố (Gr. ὀκτώ); fasciatus (L.), banded, referring to eight dark gray-purple cross-bands on trunk (not including bands on head and caudal peduncle)

**Leporinus octomaculatus Britski & Garavello 1993** *octo-,* from *októ* (Gr. ὀκτώ); *maculatus* (L.), spotted, referring to eight midlateral dark blotches along body

**Leporinus ortomaculatus Garavello 2000** orto-, variant of orthós (Gr.  $\dot{o}\rho\dot{\theta}\dot{o}\varsigma$ ), straight or upright; maculatus (L.), spotted, allusion not explained, perhaps referring to how spots above lateral line sit directly above those below lateral line, with overall form of each pair reminiscent of a colon (:)

*Leporinus oliveirai* Ito, Souza-Shibatta, Venturieri & Birindelli 2023 in honor of Ivan Oliveira Nogueira da Silva, "for his intensive work on introducing fishes bred and raised in captivity into the International Aquarium trade. Ivan is a fishing engineer who has been working since 2005 on the creation and reproduction of ornamental fish, as part of the Psicultura Tanganyika team. He was primarily responsible for introducing the new species to the International Aquarium trade."

Leporinus parae Eigenmann 1907 of Pará State, lower Amazon, Brazil, type locality

*Leporinus paranensis* Garavello & Britski 1987 *-ensis*, Latin suffix denoting place: Paraná River basin, Brazil, where it is endemic

Leporinus parvulus Birindelli, Britski & Lima 2013 Latin for very small, little, petty or slight (authors say thin or slender), referring to its slender body

*Leporinus pearsoni* Fowler 1940 in honor of American ichthyologist Nathan Everett Pearson (1895–1982), Indiana University, who collected 6,775 fish specimens in Bolivia in 1921–1922

Leporinus piau Fowler 1941 piáu, indigenous name for Leporinus species in eastern Brazil

Leporinus pitingai Santos & Jégu 1996 of the Rio Pitinga, Amazonas, Brazil, only known area of occurrence

Leporinus punctatus Garavello 2000 Latin for spotted, referring to three elongate brown blotches along lateral line

Leporinus reticulatus Britski & Garavello 1993 Latin for net-like or net-

ted, referring to large number of dark blotches scattered on body

Leporinus santosi Britski & Birindelli 2013 in honor of Brazilian aquatic biologist Geraldo Mendes dos Santos, Instituto Nacional de Pesquisas da Amazônia (Manaus), for his "important" contributions to our knowledge of the fish fauna of the lower rio Tocantins via his studies on anostomids and on the impacts of the Tucuruí dam

*Leporinus sexstriatus* Britski & Garavello 1980 *sex* (L.), six; *striatus* (L.), grooved or furrowed (i.e., striped), referring to six longitudinal body stripes

*Leporinus sidlauskasi* Britski & Birindelli 2019 in honor of Brian L. Sidlauskas (b. 1976), Curator of Fishes, Oregon State University, for "important" contributions to our knowledge of the systematics of Anostomidae

Leporinus spilopleura Norman 1926 spílos (Gr. σπίλος), mark or spot; pleurá (Gr. πλευρά), side, referring to ~12 indistinct darker cross-bars on back and upper parts of sides and/or large black spot on lateral line above pelvic fins

*Leporinus steyermarki* Inger 1956 in honor of American botanist Julian A. Steyermark (1909–1988), Chicago Natural History Museum, who led expedition that collected holotype

Leporinus striatus Kner 1858 Latin for grooved or furrowed (i.e., striped), referring to horizontal light-and-dark stripes on adults

Leporinus subniger Fowler 1943 sub (L.), below or under; niger (L.), black, referring to "largely blackish" ventral and anal fins

Leporinus taeniatus Lütken 1875 Latin for banded, referring to dark lateral band on body

**Leporinus taeniofasciatus Britski 1997** taenia, from tainía (Gr. ταινία), band or ribbon; fasciatus (L.), banded, referring to color pattern, combining a longitudinal dark stripe in middle of flank with a transverse dark dorsum

*Leporinus tepui* Birindelli, Britski & Provenzano 2019 named for Chimantá-tepuí (Bolívar, Venezuela), type locality; a *tepui* is a table-top mountain found in the Guiana Shield highlands (*tepui* means "house of the gods" in the native tongue of the Pemon, the indigenous people who inhabit the Gran Savana in Venezuela)

Leporinus tigrinus Borodin 1929 Latin for tiger-like, referring to eight cross-bands on body, "divided on the back by two branch bands"

Leporinus torrenticola Birindelli, Teixeira & Britski 2016 torrens (L.), swift water; cola (L.), dweller or inhabitant, referring to its preference for fast flowing-waters

Leporinus trimaculatus Garavello & Santos 1992 tri- (L.), three; maculatus (L.), spotted, referring to large, circular, light-brown patches along lateral line and a small, less conspicuous brown blotch on caudal peduncle

Leporinus tristriatus Birindelli & Britski 2013 tri- (L.), three; striatus (L.), grooved or furrowed (i.e., striped), referring to three dark stripes on body

Leporinus unitaeniatus Garavello & Santos 2009 uni-, from unus (L.), one; taeniatus (L.), banded, referring to single, slender horizontal dark brown stripe on lateral line

Leporinus vanzoi Britski & Garavello 2005 in honor of Brazilian herpetologist Paulo Emílio "Vanzo" Vanzolini (1924–2013), founder of Expedição Permanente à Amazônia (EPA), which greatly contributed to the Amazonian fish collection at MZUSP (Universidade de São Paulo, Museu de Zoologia, São Paulo, Brazil) and to Brazilian fish studies in general; type specimens were collected by EPA under the direction of Vanzolini

Leporinus venerei Britski & Birindelli 2008 in honor of Brazilian biologist Paulo Cesare Venere, who collected first known specimens in 1995

*Leporinus villasboasorum* Burns, Chatfield, Birindelli & Sidlauskas 2017 -*orum* (L.), commemorative suffix, plural: in honor of Orlando

(1914–2002) and his brothers Cláudio (1916–1998) and Leonardo Villas-Bôas (1918–1961), Brazilian activists for indigenous peoples, for their efforts to conserve and protect the Rio Xingu's biodiversity, of which this species forms a part

**Leporinus y-ophorus Eigenmann 1922** *y*-, the letter y, *phorus*, from *phoreús* (Gr.  $\phi$ opɛúc), bearer or carrier bearer, referring to second vertical bar, which is divided above lateral line to form a "Y" that opens dorsally (the "o" perhaps added for euphony)

### Megaleporinus

Ramirez, Birindelli & Galetti 2016 mega-, large, referring to large size of most congeners; Anostomus, genus in which most species had previously been assigned

*Megaleporinus brinco* (Birindelli, Britski & Garavello 2013) Portuguese for earring, referring to red blotch behind head, immediately dorsal to pectoral-fin origin

**Megaleporinus conirostris (Steindachner 1875)** conus (L.), from konos (Gr. κῶνος), cone; rostris, Neo-Latin scientific adjective of rostrum (L.), snout, referring to its rounded snout

*Megaleporinus elongatus* (Valenciennes 1850) Latin for prolonged, referring to its elongate body, with a proportionally longer head and snout compared with *L. pachyurus* 

**Megaleporinus gaiero Birindelli, Britski & Ramirez 2020** from *piaugaiero*, Brazilian Portuguese name for this species, a combination of *piáu* (*Leporinus*) and *gaio* (from *galho*, tree branches), referring to how specimens when caught, especially with hook and line, tend to hide below submerged tree trunks

*Megaleporinus garmani* (Borodin 1929) in honor of American ichthyologist-herpetologist Samuel Garman (1843–1927), Harvard University, who began studying anostomid fishes during the Thayer Expedition (1865–1866) to Brazil

**Megaleporinus macrocephalus (Garavello & Britski 1988)** big-headed, from *makrós* (Gr. μακρός), long or large, and *kephalḗ* (Gr. κεφαλή), head, presumably referring to bigger head compared with *L. trifasciatus* 

*Megaleporinus muyscorum* (Steindachner 1900) -*orum* (L.), commemorative suffix, plural: Muisca (also spelled Muysca) people of Colombia's Eastern Range, an area that includes Santander, type locality

*Megaleporinus obtusidens* (Valenciennes 1837) *obtusus* (L.), blunt or dull; *dens* (L.), tooth, referring to its blunt teeth, compared with sharp teeth of *L. acutidens* 

*Megaleporinus pachyurus* (Valenciennes 1850) thick-tailed, from *pachýs* (Gr. παχύς), thick or stout, and *ourá* (Gr. οὐρά), tail, referring to thick caudal fin rays [*species inquirenda*, provisionally included here]

*Megaleporinus piavussu* (Britski, Birindelli & Garavello 2012) local name for this species (also spelled *piavuçu*) along upper Rio Paraná basin, Brazil, translating as *piava*, fishes of the genus *Leporinus*, and *ussu* (or *uçu*), big, i.e., a big *Leporinus* 

Megaleporinus reinhardti (Lütken 1875) in honor of Danish zoologist



Megaleporinus piavussu. Photo by Alec Zeinad. From: Britski, H. A., J. L. O. Birindelli and J. C. Garavello. 2012. A new species of *Leporinus* Agassiz, 1829 from the upper Rio Paraná basin (Characiformes, Anostomidae) with redescription of *L. elongatus* Valenciennes, 1850 and L. *ob-tusidens* (Valenciennes, 1837). Papéis Avulsos de Zoologia, Museu de Zoologia da Universidade de São Paulo 52 (37): 441–475.

#### 6 · The ETYFish Project

Johannes Theodor Reinhardt (1816–1882), with whom Lütken collaborated on many studies, and who published an important paper on characiform fishes in 1867

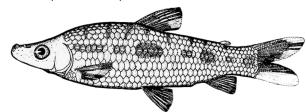
*Megaleporinus trifasciatus* (Steindachner 1876) *tri-* (L.), three; *fasciatus* (L.), banded, referring to three dark-brown crossbands on body

## Petulanos

### Sidlauskas & Vari 2008

petulans (L.), impudent or petulant, referring to upturned mouth, which gives these fishes such an appearance; anos-, first four letters of Anostomus from which Petulanos was separated

**Petulanos intermedius (Winterbottom 1980)** Latin for intermediate, referring to its intermediate position in morphometrics and color pattern between *P. plicatus* and *P. spiloclistron* 



Petulanos intermedius, holotype, 77.7 mm SL. From: Winterbottom, R. 1980. Systematics, osteology and phylogenetic relationships of fishes of the ostariophysan subfamily Anostominae (Characoidei, Anostomidae). Royal Ontario Museum Life Science Contributions No. 123: i–iv + 1–112.

Petulanos plicatus (Eigenmann 1912) Latin for folded, allusion not explained, perhaps referring to the skin folds of its "very prominent lips"

**Petulanos spiloclistron (Winterbottom 1974)** spílos (Gr. σπίλος), mark or spot; *clistron* (Gr. κλεῖστρον), bar, referring to "striking" color pattern of spots and bars (or bands)

## Pseudanos

## Winterbottom 1980

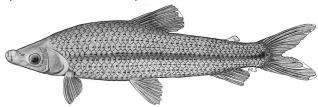
*pseudo*-, from *pseúdēs* (Gr. ψεύδης), false; *anos*, first four letters of *Anostomus*, i.e., although this genus may externally be very similar to *Anostomus*, such an appearance is false

**Pseudanos gracilis (Kner 1858)** Latin for thin or slender, referring to its elongate body, length of head exceeding height of body

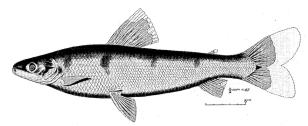
*Pseudanos trimaculatus* (Kner 1858) *tri-* (L.), three; *maculatus* (L.), spotted, referring to three large, conspicuous spots or blotches on sides

**Pseudanos varii Birindelli, Lima & Britski 2012** in honor of Richard P. Vari (1949–2016), National Museum of Natural History, Smithsonian Institution (Washington, D.C., USA), for his "vast, invaluable contribution to the knowledge of systematics of characiform fishes, particularly the anostomoid fishes"

**Pseudanos winterbottomi Sidlauskas & Santos 2005** in honor of Zambian-born Canadian ichthyologist Richard Winterbottom (b. 1944), Royal Ontario Museum, for "significant" contributions to anostomine systematics and natural history



Pseudanos winterbottomi, holotype, 129.4 mm SL (with damaged fins recontructed). Illustration by Brian L. Sidlauskas. From: Sidlauskas, B. L. and G. M. dos Santos. 2005. Pseudanos winterbottomi: a new anostomine species (Teleostei: Characiformes: Anostomidae) from Venezuela and Brazil, and comments on its phylogenetic relationships. Copeia 2005 (1): 109–123.



Rhytiodus lauzannei, holotype, 290 mm SL. (with damaged fins reconstructed). Illustration by Pierre Opic. From: Géry, J. 1987. Description d'une nouvelle espèce de poisson anostomidé (Ostariophysi, Characoidei) du rio Mamoré, Bolivie: Rhytiodus lauzannei sp. n. Cybium 11 (4): 365–373.

### Rhytiodus Kner 1858

*rhytido-*, from *rhytidṓdēs* (Gr. ῥυτιδώδης), wrinkled; *odus*, from *odoús* (Gr. ὀδούς), tooth, presumably referring to finely denticulated teeth of *R. argenteofuscus* and *R. microlepis* 

Rhytiodus argenteofuscus Kner 1858 argenteus (L.), silvery; fuscus (L.), dark or dusky, referring to dark-brown sides and silver abdomen

*Rhytiodus elongatus* (Steindachner 1908) Latin for prolonged, referring to its "strikingly slim" (translation) body

**Rhytiodus lauzannei Géry 1987** in honor of "éminent collègue" Laurent Lauzanne, French ichthyologist, who helped collect holotype

**Rhytiodus microlepis Kner 1858** micro-, from mikrós (Gr. μικρός), small; *lepís* (Gr. λεπίς), scale, referring to smaller, more numerous scales compared with *R. argenteofuscus* 

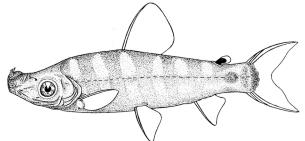
### Sartor

Myers & Carvalho 1959

Latin for tailor, mender or one who works with a needle, a "perhaps fanciful allusion" to the long, awl-like mandibular teeth of *S. respectus* 

Sartor elongatus Santos & Jégu 1987 Latin for prolonged, referring to its very elongate body shape compared with congeners, which are more robust in shape

Sartor respectus Myers & Carvalho 1959 Latin for looking backward or about, referring to raised anterior rim of eye, which allows it to see backward better than forward



Sartor respectus, holotype, 83 mm SL. Illustration by Antenor Leitão de Carvalho. From: Myers, G. S. and A. L. de Carvalho. 1959 (24 July) A remarkable new genus of anostomin characid fishes from the Upper Rio Xingú in central Brazil. Copeia 1959 (2): 148–152.

Sartor tucuruiensis Santos & Jégu 1987 -ensis, Latin suffix denoting place: Tucuruí, Pará, Brazil, where type locality (Tocantins River basin) is situated

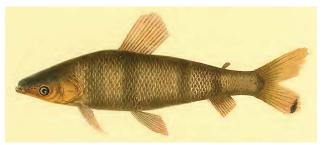
# Schizodon

Agassiz 1829

*schizo-*, cut or divided; *odon*, tooth, referring to bi- to pentacuspid incisiform teeth, which form a continuous crenulate cutting border

*Schizodon altoparanae* Garavello & Britski 1990 *altus* (L.), high, i.e., from upper Paraná River basin, Brazil, where it is endemic

**Schizodon australis** Garavello 1994 Latin for southern, referring to distribution in southern region of South America (Uruguay River basin, Brazil)



Schizodon fasciatus. From: Spix, J. B. von and L. Agassiz 1829-31. Selecta genera et species piscium quos in itinere per Brasiliam annis MDCCCXVII-MDCCCXX jussu et auspiciis Maximiliani Josephi I. Monachii (Munich). Part 1: i–xvi + i-ii + 1-6 + 1-82, Pls. 1–48, Part 2: 83–138, Pls. 49–101. [Part 1 published June 1829, part 2 Jan. 1831.]

Schizodon borellii (Boulenger 1900) in honor of French-born Italian zoologist Alfredo Borelli (1858–1943), Università di Torino, who led three expeditions to South America and collected many animals, including holotype of this one

**Schizodon corti Schultz 1944** vernacular for this species in Maracaibo, Venezuela; it means "cut," probably referring to its sharp, cutting teeth [treated as a synonym or subspecies of *S. fasciatus* by some workers]

Schizodon dissimilis (Garman 1890) Latin for different, nearly related to *S. vittatus* and *S. fasciatus* but lacking spot at base of caudal fin, and darker in color than *S. fasciatus* 

Schizodon fasciatus Spix & Agassiz 1829 Latin for banded, referring to four vertical black bands on body

Schizodon intermedius Garavello & Britski 1990 Latin for intermediate, allusion not explained, presumably intermediate in coloration between S. altoparanae and S. fasciatus

**Schizodon isognathus Kner 1858** *isos* (Gr. ἴσος), equal; *gnáthos* (Gr. γνάθος), jaw, presumably referring to eight crenulated incisors in both upper and lower jaws

*Schizodon jacuiensis* Bergmann 1988 -*ensis*, Latin suffix denoting place: Río Jacuí, largest tributary in the Laguna dos Patos drainage (southeastern Brazil), where it occurs

Schizodon knerii (Steindachner 1875) patronym not identified but clearly in honor of Austrian ichthyologist Rudolf Kner (1810–1869), who was Steindachner's teacher and friend (and who studied anostomid fishes)

Schizodon nasutus Kner 1858 Latin for large-nosed, referring to its somewhat pointed snout, with upper jaw projecting beyond lower jaw

Schizodon paucisquamis Britski, Garavello & Ramirez 2023 paucus (L.), few or scanty; squamis, Neo-Latin scientific adjective of squama (L.), scale, referring to reduced circumpeduncular squamation of caudal peduncle, it distinguishing feature

Schizodon platae (Garman 1890) of the La Plata River basin, Argentina, type locality

Schizodon rostratus (Borodin 1931) Latin for beaked, probably referring to its thick, broad, subobtuse snout, "somewhat swollen in the region of the nostrils"

**Schizodon scotorhabdotus Sidlauskas, Garavello & Jellen 2007** scoto-, from skótos (Gr. σκότος), darkness; rhábdos (Gr. ῥάβδος), rod or stick (i.e., line or stripe), referring to prominent dark lateral stripe

*Schizodon succinctus* Burmeister 1861 Latin for short, small or contracted, allusion not explained, perhaps referring to smaller size compared with *S. fasciatus* 

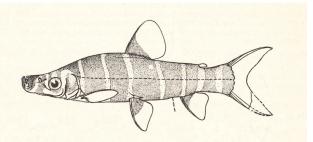
Schizodon trivittatus Garavello, Ramirez, Oliveira, Britski, Birindelli & Galetti 2021 tri- (L.), three; vittatus (L.), banded, referring to three dark vertical bars on trunk

Schizodon vittatus (Valenciennes 1850) Latin for banded, referring to three transverse band-like spots on sides

## Synaptolaemus

Myers & Fernández-Yépez 1950 synaptós (Gr. συναπτός), joined together or united; laimós (Gr. λαιμός), throat, referring to broad union of gill membranes with throat

Synaptolaemus latofasciatus (Steindachner 1910) latus (L.), broad or wide; fasciatus (L.), banded, referring to eight brownish-violet wide crossbands on body, alternating with narrow golden-yellow (sometimes red or orange) bands



Possibly first-published image of *Synaptolaemus latofasciatus* (as *S. cingulatus*, a junior synonym). Illustration by Augustin Antonio Fernández-Yépez. From: Myers, G. S.1950. Studies on South American fresh-water fishes. II. The genera of anostomine characids. Stanford Ichthyological Bulletin 3 (4): 184–198.

#### UNAVAILABLE NAME

The following species was described in electronic-only publications without evidence of ZooBank registration, required per ICZN 8.5.3. The name is therefore unavailable (but may still appear in subsequent publications and websites). Its omission above is not an oversight.

Megaleporinus prochiloides Roberts 2021 -oides, Neo-Latin from eidos (Gr. είδος), form or shape: referring to its greatly enlarged mouth and lips, strongly resembling those of Prochilodus (Prochilodontidae)