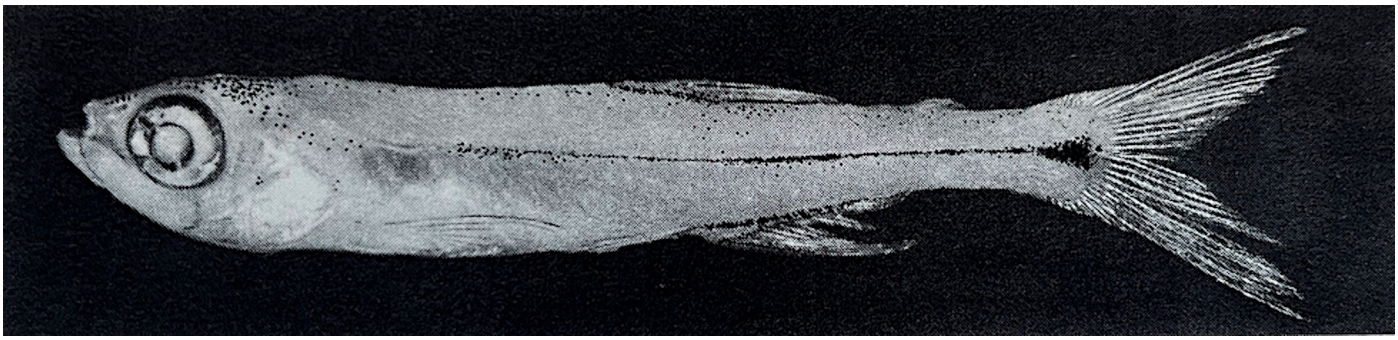
Order CHARACIFORMES

Sprat Tetra

Family **ACESTRORHAMPHIDAE**

Subfamily **OXYBRYCONINAE** Melo, Mattox & Oliveira 2024



Oxybrycon parvulus, holotype, 16.3 mm SL. From: Géry, J. 1964. Poissons characoïdes de l'Amazonie péruvienne. Beiträge zur Neotropischen Fauna 4 (1): 1–44.

Oxybrycon

Géry 1964

oxýs (ὀξύς), sharp or pointed, referring to its small, sharp teeth; *brycon*, generalized term used in generic names of many characiform fishes, derived from *brýchō* (βρύχω), to bite, gnash teeth or eat g reedily, originally an allusion to fully toothed maxillae

***Oxybrycon parvulus* Géry 1964** diminutive of *parvus* (L.), small, i.e., very small, a "miniscule" species, up to 2.1 cm SL

Order CHARACIFORMES

Hummingbird Characin

Family **ACESTRORHAMPHIDAE**

Subfamily **TROCHILOCHARACINAE** Zarske 2010

Trochilocharax ornatus. Photo by Dieter Bork. From: Zarske, A. 2010. Der Kolibrisalmler – *Trochilocharax ornatus* gen. et spec. nov. – ein neuer Salmler aus Peru (Teleostei: Characiformes: Characidae). Vertebrate Zoology 60 (2): 75–98.

Trochilocharax

Zarske 2010

Trochilus, hummingbird genus, from *trokhílos* (τροχίλος), a small bird mentioned by Aristotle, presumably referring to small size of *T. ornatus* (up to 17.0 mm SL); *Charax*, typical genus of the Characiformes, from *chárax* (χάραξ), a pointed stake of a palisade, referring to densely packed sharp teeth, now a common root-name formation in the order

Trochilocharax ornatus **Zarske 2010** Latin for adorned or decorated, referring to its attractive coloration in life

Order CHARACIFORMES

[no common name]

Family **ACESTRORHAMPHIDAE**

Subfamily **STYGICHTHYINAE** Géry 1972

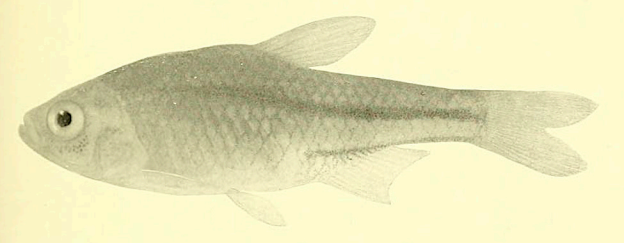
Deuterodon burgerai, paratype, male, 54.4 mm SL. From: Zanata, A. M. and P. Camelier. 2009 *Astyanax vermilion* and *Astyanax burgerai*: new characid fishes (Ostariophysi: Characiformes) from northeastern Bahia, Brazil. Neotropical Ichthyology 7 (2): 175–184.

Coptobrycon

Géry 1966

copto-, from *koptós* (κοπτός), cut or chopped small, referring to loss of adipose fin and posterior mandibular teeth, i.e., "mutilated" per Géry; *brycon*, generalized term used in generic names of many characiform fishes, derived from *brýchō* (βρύχω), to bite, gnash teeth or eat greedily, originally an allusion to fully toothed maxillae

***Coptobrycon bilineatus* (Ellis 1911)** *bi-*, from *bis* (L.), twice; *lineatus* (L.), lined, referring to heavy black lateral stripe from caudal peduncle to head, and an almost straight black line from caudal fin along underside of caudal peduncle to a point just above origin of anal fin [Ellis is married name of Durbin, who described many small tetras]



Coptobrycon bilineatus. From: Ellis, M. D. 1911. On the species of *Hasemania*, *Hyphessobrycon*, and *Hemigrammus* collected by J. D. Haseman for the Carnegie Museum. Annals of the Carnegie Museum 8 (1): 148–163, Pls. 1–3.

Deuterodon

Eigenmann 1907

deúteros (δεύτερος), second; *odon*, from *odoús* (ὀδούς), tooth, referring to similarity of teeth on lower (i.e., second) jaw

***Deuterodon burgerai* (Zanata & Camelier 2009)** in honor of Rafael Burger, a student who "enthusiastically" collected holotype

***Deuterodon giton* (Eigenmann 1908)** from *geítōn* (γείτων), neighbor, presumably referring to its inferred close relationships with *D. taeniatus* and *Astyanax brevirhinus* (its presumed congener at the time) based on similarity

***Deuterodon hamatilis* (Camelier & Zapata 2014)** Latin for "with hooks," referring to small bony hooks on all fins of mature males, unique among Brazilian congeners then placed in *Astyanax*

***Deuterodon hastatus* (Myers 1928)** Latin for armed with a spear, referring to its "hastate" (narrow triangular shape like that of a spearhead) caudal spot

***Deuterodon heterostomus* (Eigenmann 1911)** different-mouthed, from *héteros* (ἕτερος), different, and *stóma* (στόμα), mouth, referring to its "peculiar" outwardly projecting teeth

***Deuterodon iguape* Eigenmann 1907** named for Iguapé, a municipality in São Paulo, Brazil, and/or Ribeira de Iguapé River basin, both of which refer to type locality

***Deuterodon intermedius* (Eigenmann 1908)** Latin for intermediate, described as intermediate in form between *D. taeniatus* and *Astyanax* (now *Psalidodon*) *scabripinnis*, its presumed congener at the time

***Deuterodon janeiroensis* (Eigenmann 1908)** *-ensis*, Latin suffix denoting place: Rio de Janeiro, Brazil, type locality

***Deuterodon langei* Travassos 1957** in honor of Rudolf Bruno Lange (1922–2016), curator of the zoological collection at Museu de História Capão da Imbuia (Paraná, Brazil), who collected holotype

***Deuterodon longirostris* (Steindachner 1907)** *longus* (L.), long; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, proposed as a variety of *Tetragonopterus* (now *Psalidodon*) *fasciatus* distinguished by its blunt, conical snout, which overlaps the front end of the jaw, giving the appearance of having a slightly longer snout

***Deuterodon luetkenii* (Boulenger 1887)** patronym not identified, probably in honor of Danish zoologist Christian Frederik Lütken (1827–1901)

***Deuterodon mutator* (Eigenmann 1909)** Latin for changer, allusion not explained; Eigenmann later wrote that *Astyanax* (original genus) *mutator* and *Hyphessobrycon proteus* "furnish bridges between" their respective genera,[1] so perhaps name alludes to the former changing into the latter

***Deuterodon oyakawai* (Santos & Castro 2014)** in honor of marine biologist and limnologist Osvaldo T. Oyakawa, Museu de Zoologia da Universidade de São Paulo, who collected much of the type series, for his major contributions to our knowledge of the fishes of the rio Ribeira de Iguape basin

***Deuterodon parahybae* Eigenmann 1908** epithet not explained, possibly of Paraíba do Sul, a river in southeast Brazil, just south of Itapemirim River, Espírito Santo, type locality [*Incertae sedis* in Acestrorhamphidae; likely belongs in a different genus]

***Deuterodon pedri* Eigenmann 1908** in honor of Dom Pedro II (1825–1891), last ruler of the Empire of Brazil (and learned amateur scientist), who collected several specimens of this fish which were not included in type series because of their poor condition [*Incertae sedis* in Acestrorhamphidae; likely belongs in a different genus]

***Deuterodon potaroensis* Eigenmann 1909** *-ensis*, Latin suffix denoting place: Potaro River basin, Guyana, where type locality (Amatuk Cataract) is situated [*Incertae sedis* in Acestrorhamphidae; likely belongs in a different genus]

***Deuterodon ribeirae* (Eigenmann 1911)** etymology not explained; possibly in honor of Brazilian ichthyologist-herpetologist Alípio de Miranda Ribeiro (1874–1939), whose works are frequently cited in Eigenmann's monograph, but more likely referring to rio Ribeiro da Iguape, river basin of the type locality

***Deuterodon rosae* (Steindachner 1908)** matronym not identified, possibly in honor of American ichthyologist Rosa Smith Eigenmann (1858–1947), wife of ichthyologist Carl H. Eigenmann

***Deuterodon sazimai* (Santos & Castro 2014)** in honor of Brazilian biologist Ivan Sazima, Museu de Zoologia, Universidade Estadual de Campinas (São Paulo, Brazil), for contributions to our knowledge of Neotropical lepidophagous characiform fishes

***Deuterodon singularis* Lucena & Lucena 1992** Latin for unique or remarkable, the only member of the genus with the first dorsal-fin pterygiophore supporting four rays

***Deuterodon stigmaturus* (Gomes 1947)** spot-tailed, from *stígma* (στίγμα), mark or spot, and *ourá* (οὐρά), tail, referring to large and intense black spot at base of caudal fin

***Deuterodon supparis* Lucena & Lucena 1992** Latin for nearly equal, referring to its similarity to *D. rosae*

***Deuterodon taeniatus* (Jenyns 1842)** Latin for banded, referring to bright silver lateral band, "more brilliant" than the band on *Astyanax scabripinnis*, its presumed congener at the time

[1] Eigenmann, C. H. 1917. The American Characidae [Part I]. Memoirs of the Museum of Comparative Zoology 43 (1): 1–102, 16 pls.

Myxiops aphos, holotype, 56 mm SL. From: Zanata, A. M. and A. Akama. 2004. *Myxiops aphos*, a new characid genus and species (Characiformes: Characidae) from the rio Lençóis, Bahia, Brazil. Neotropical Ichthyology 2 (2): 45–54.

Myxiops

Zanata & Akama 2004

mýxa (μύξα), mucus or slime; *íōps* (ἴωψ), a small fish, referring to the copious amount of mucous covering the body of *M. aphos*, which makes the fish very slippery when alive and even for some period after fixation in formalin and storage in alcohol

***Myxiops aphos* Zanata & Akama 2004** *á-* (ἀ), privative, i.e., without; *phōs* (φῶς), light, i.e., dark or obscure, referring to dark waters of the rio Lençóis, Bahia State, Brazil, type locality

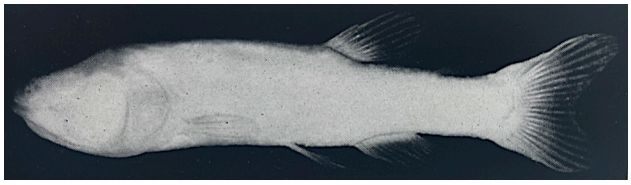
***Myxiops pelecus* (Bertaco & Lucena 2006)** *pélekys* (πέλεκυς), battle axe, referring to axe-shaped marking formed by junction of humeral spot and black midlateral stripe

Stygichthys

Brittan & Böhlke 1965

Stýgios (Στύγιος), of the nether world, referring to its subterranean habitat; *ichthýs* (ἰχθύς), fish

***Stygichthys typhlops* Brittan & Böhlke 1965** *typhlós* (τυφλός), blind; *ōps* (ὦψ), eye, referring to lack of any external evidence either of eyes or of circumorbital bones (save for one short isolated segment)



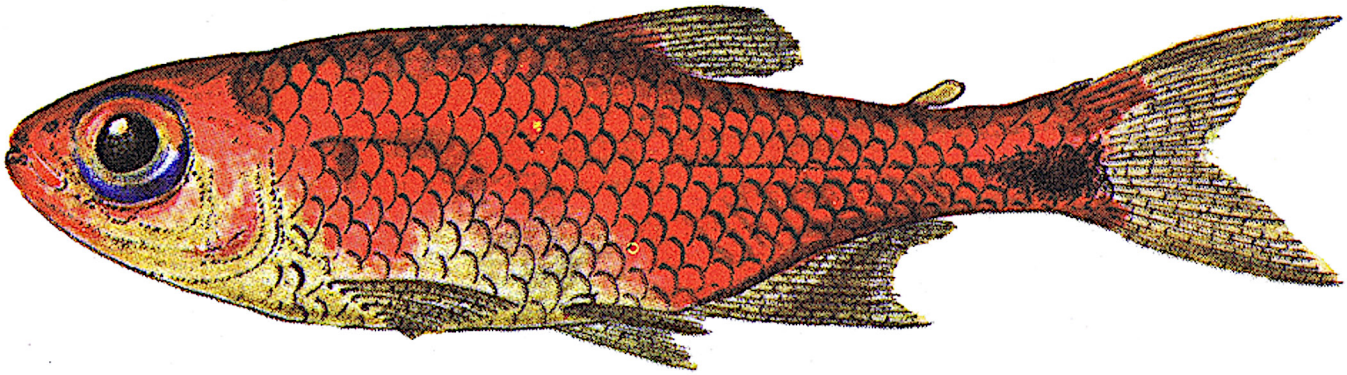
Stygichthys typhlops, holotype, 23.6 mm SL. From: Brittan, M. R. and J. E. Böhlke. 1965. A new blind characid fish from southeastern Brazil. Notulae Naturae (Philadelphia) 380: 1–4.

Order CHARACIFORMES

Red Tetras

Family **ACESTRORHAMPHIDAE**

Subfamily **MEGALAMPHODINAE** Carvalho, Lima & Melo 2024



Axelrodia riesei. From: Géry, J. 1966. *Axelrodia riesei*, a new characoid fish from Upper Rio Méta in Colombia. (With remarks concerning the genus *Axelrodia* and a description of a similar, sympatric, *Hyphessobrycon*-species.). Ichthyologica, the Aquarium Journal 7 (3): 111–120.

Axelrodia

Géry 1965

-*ia* (L. suffix), belonging to: American pet-book publisher and aquarist Herbert R. Axelrod (1927–2017), who, with William Riese, collected holotype of *A. riesei*

***Axelrodia riesei* Géry 1966** in honor of tropical-fish exporter William Riese, who, with Herbert R. Axelrod, collected holotype

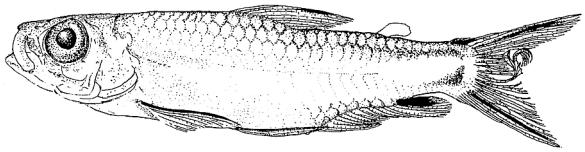
***Axelrodia stigmatias* (Fowler 1913)** Latin for a branded person (e.g., a slave), referring to large and conspicuous black oval spot at base of caudal fin

Brittanichthys

Géry 1965

in honor of American ichthyologist Martin R. Brittan (1922–2008), Sacramento State College (California, USA), who discovered both species; *ichthýs* (ἰχθύς), fish

***Brittanichthys axelrodi* Géry 1965** in honor of American pet-book publisher and aquarist Herbert R. Axelrod (1927–2017), whose T.F.H. Fund sponsored the expedition during which holotype was collected



Brittanichthys axelrodi, holotype, male, 28.1 mm TL. From: Géry, J. 1965. A new genus from Brazil—*Brittanichthys*. Tropical Fish Hobbyist 13 (6) [Feb.]: 13–24, 61–69.

***Brittanichthys myersi* Géry 1965** in honor of Stanford University ichthyologist George S. Myers (1905–1985), "a long-time student of South American fishes"

Makunaima

Terán, Benitez & Mirande 2020

named for Makunaima (also spelled Macunaima or Makonaima), a god of creation in the mythology of several Amazonian tribes; according to legend, Makunaima created animals and a great tree from which all food plants grew

***Makunaima guaporensis* (Eigenmann 1911)** -*ensis*, Latin suffix denoting place: rio Guaporé at Maciel, Brazil, type locality

***Makunaima guianensis* (Eigenmann 1909)** -*ensis*, Latin suffix denoting place: Warraputa, Guyana, type locality

***Makunaima multidens* (Eigenmann 1908)** *multi-* (L.), many; *dens* (L.), tooth, referring to "large number" (5) of maxillary teeth

***Makunaima pittieri* (Eigenmann 1920)** patronym not identified, probably in honor of Swiss-born geographer-botanist Henri François Pittier (1857–1950), who lived in Venezuela and collected some specimens for Eigenmann

Megalamphodus

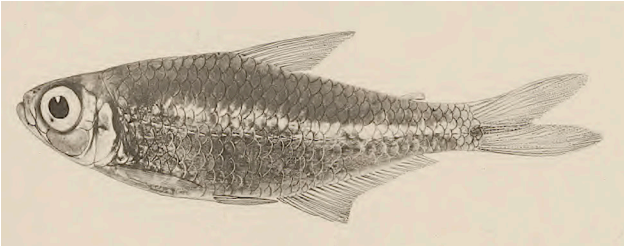
Eigenmann 1915

megalámphodos (μεγαλάμφοδος), with spacious ways, allusion not explained, perhaps referring to its "very large" fontanels, the anterior fontanel (frontal bones) "entirely separate" (i.e., with a space between) from the posterior (parietal bones)

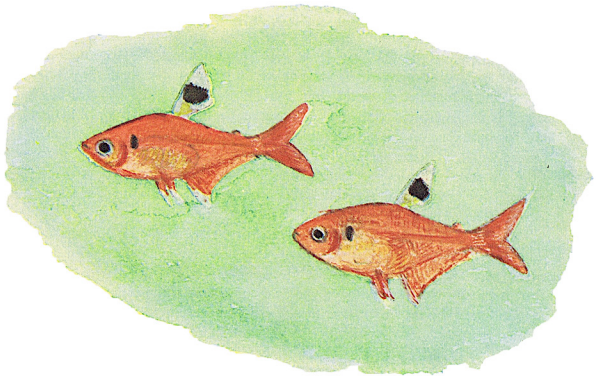
***Megalamphodus bentosi* (Durbin 1908)** in memory of Colonel Bentos (no other information available), a volunteer on the Thayer Expedition to Brazil (1865–1866), during which holotype was collected

***Megalamphodus copelandi* (Durbin 1908)** in memory of Herbert Copeland, a Boston volunteer on the Thayer Expedition to Brazil (1865–1866), during which type was collected (other accounts cite the name as Edward Copeland, presumably the same person; see *Hypomasticus copelandii* in Anostomidae)

***Megalamphodus epicharis* (Weitzman & Palmer 1997)** *epícharis* (ἐπίχαρις), pleasing, agreeable or charming, referring to its beautiful color and form



Probably first-published image of *Makunaima multidens*. From: Eigenmann, C. H. 1927. The American Characidae [Part IV]. Memoirs of the Museum of Comparative Zoology 43 (4): 311–428, 24 pls.



Sketch made by Harald Schultz of the living colors of *Megalamphodus haraldschultzi*. From: Travassos, H. 1960. *Hyphessobrycon haraldschultzi* new species. Tropical Fish Hobbyist 8 (6): 5–7.

Megalamphodus eques **(Steindachner 1882)** Latin for horseman or rider, allusion not explained, probably referring to oblique saddle-like marking on sides (Steindachner used this name for other fishes with saddle-like markings, including the characiforms *Nannostomus eques* and *Abramites eques*)

Megalamphodus erythrostigma **(Fowler 1943)** *erythrós* (ἐρυθρός), red; *stígma* (στίγμα), mark or spot, referring to "brilliant round vermilion" spot on side

Megalamphodus haraldschultzi **(Travassos 1960)** in honor of Brazilian ethnographer and fish collector Harald Schultz (1909–1966), who collected holotype

Megalamphodus khardinae **(Zarske 2008)** in honor of Uzbek photographer Natasha Khardina (b. 1979), who collected holotype with her husband, German explorer and ornamental fish wholesaler and supplier Heiko Bleher (1944–2025)

Megalamphodus megalopterus **Eigenmann 1915** large-finned, from *mégas* (μέγας), big, and *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, probably referring to its high dorsal fin

Megalamphodus micropterus **Eigenmann 1915** small-finned, from *mikrós* (μικρός), small, and *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, probably referring to its smaller dorsal fin compared with *M. megalopterus*

Megalamphodus rosaceus **(Durbin 1909)** Latin for made of roses (i.e., rosy), referring to rose-tinged scales above anal and ventral fins and base of caudal-fin lobes

Megalamphodus socolofi **(Weitzman 1977)** in honor of Ross Socolof (1925–2009), American aquarium-fish exporter, breeder and wholesaler, "who in a variety of ways has come to the aid of various ichthyologists and fisheries biologists," including securing holotype of this species through his contacts in Brazil

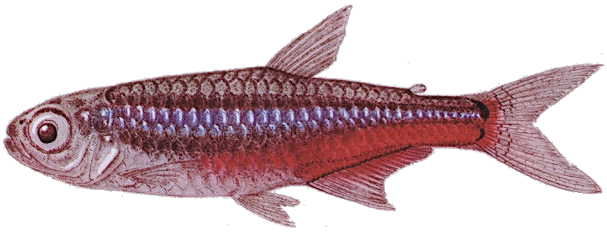
Megalamphodus sweglesi **Géry 1961** in honor of tropical fish distributor Kyle Swegles (Rainbow Aquarium, Chicago, Illinois, USA), who collected holotype

Paracheirodon

Géry 1960

para- (παρά), near, referring to resemblance of *P. innesi* to *Cheirodon* (now *Paracheirodon*) *axelrodi*, due to a "remarkable evolutive convergency or, more probably, by real phylogenetic affinity"

Paracheirodon axelrodi **(Schultz 1956)** in honor of American pet-book publisher and aquarist Herbert R. Axelrod (1927–2017), who sent two specimens (provided by Sol Kessler, The Fish Bowl, Irvington, N.J., USA) to Schultz and the U.S. National Museum for study and "permanent preservation" [see essay, next two pages]



Paracheirodon simulans. From: Géry, J. 1963. *Hyphessobrycon simulans* a new neon tetra. Tropical Fish Hobbyist 11 (8) [April]: 13–16, 70–72.

Paracheirodon innesi **(Myers 1936)** in honor of American aquarist and publisher William T. Innes (1874–1969), who sent specimens of this "gorgeous little fish" to Myers "with a request for its identification"

Paracheirodon simulans **(Géry 1963)** Latin for imitative, referring to how its color pattern "gives almost exactly the impression of the true Neon Tetra" (*P. innesi*)

Petitella

Géry & Boutière 1964

-ella, Latin diminutive connoting endearment: in honor of French zoologist-anatomist Georges Petit (1892–1973), Directeur du Laboratoire Arago (Observatoire océanologique de Banyuls-sur-Mer, France)

Petitella bleheri **(Géry & Mahnert 1986)** in honor of German explorer and ornamental fish wholesaler and supplier Heiko Bleher (1944–2025), who collected topotype specimens

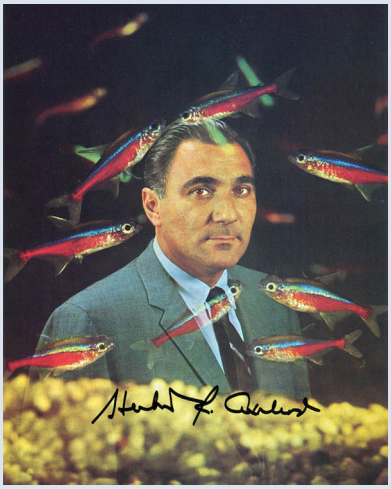
Petitella georgiae **Géry & Boutière 1964** in honor of Géry's wife, Georgie, or Georgette

Petitella rhodostoma **(Ahl 1924)** rose-mouthed, from *rhódon* (ῥόδον), rose, and *stóma* (στόμα), mouth, referring to red nose and mouth area [often misspelled *rhodostomus*]

Petitella bleheri at the Nancy Aquarium, France. These specimens were sacrificed and represent part of the type series. Photo by Denis Terver. From: Géry, J. and V. Mahnert. 1986. A new rummy-nose tetra from the Rio Negro, Brazil: *Hemigrammus bleheri* n. sp. (Characidae, Tetragonopterinae), with comments on *Paracheirodon*. Tropical Fish Hobbyist 34 (11) [July]: 37, 40–41, 44–45, 48–49, 52.

Herbert R. Axelrod's mad dash for nomenclatural immortality

The Cardinal Tetra was so strikingly beautiful — and destined to be one of the most coveted freshwater aquarium fishes ever — that tropical-fish tycoon and pet-book publisher Herbert R. Axelrod (1927–2017) just *had* to have it named after him. The result is one of the most contentious battles in fish nomenclature. The story has been told many times, usually as an illustration of Axelrod's reported narcissism, larger-than-life ego and win-at-all-costs approach to business, life and even science. It's a story worth telling again.



Publicity photo of Herbert R. Axelrod with his beloved *Paracheirodon axelrodi*.

Early in his career, Axelrod sent specimens of new or unknown aquarium fishes to ichthyologist Leonard P. Schultz at the Smithsonian Institution in Washngton, D.C. "Schultz offered to name a fish [after me] earlier," Axelrod told master aquarist Rosario LaCorte, "but I will select the fish that I want when I see it."[1] That fish turned out to be the Cardinal Tetra.

Some of the first — if not the first — Cardinal Tetras to enter the USA from the Rio Negro of Brazil came through Paramount Aquarium in Miami, Florida, co-owned by Ferdinand (Fred) Cochu, in the mid-1950s. Cochu sent specimens of this more brightly colored "Neon Tetra" to Alan Mark Fletcher, editor of *The Aquarium* magazine, published by the legendary William T. Innes (for whom the Neon Tetra is named). Fletcher (or Innes) preserved a few specimens and sent them to ichthyologist George S. Myers at Stanford University.

Months went by and Fletcher heard nothing back from Myers. Word eventually got around that Axelrod received some Cardinal Tetras from The Fish Bowl, a tropical-fish store near his home in New Jersey. (Axelrod later claimed he discovered the Cardinal Tetra while searching for discus in the Rio Negro.) Now with a fish beautiful enough to bear his name, Axelrod jumped on a plane to Washington, D.C., and hand-delivered the specimens to Schultz. "This is the fish I want named after me," he reportedly said.[1]

Word got back to Cochu and Fletcher that Axelrod and Schultz were planning their own description. Fletcher called Myers and asked how the description was coming along. Myers apparently had forgotten about it, but agreed to work on it immediately. In truth, he probably passed the assignment to his graduate student, a young Stanley Weitzman. Myers and Weitzman named the fish *Hyphessobrycon cardinalis* and published their description in the *Stanford Ichthyological Bulletin* v. 7 (no. 1): 1-4. The official publication date was 21 Feb. 1956. They selected the adjective *cardinalis* because of the brilliant red color on the sides, presumably reminiscent of the Cardinal Flower *Lobelia cardinalis* or the deep scarlet color of a Catholic cardinal's cassock. This is the origin of the common name Cardinal Tetra.

At the same time Myers and Weitzman completed their description, Schultz completed his, or at least a preliminary version of it. Schultz sent his description in the form of a personal letter to Axelrod, dated 15 Feb. 1956, which Axelrod reprinted in the March-April 1956 issue of his magazine *Tropical Fish Hobbyist*. Schultz called it *Cheirodon axelrodi*, the "Scarlet Characin," naming it after Axelrod for sending specimens to Schultz for study and to the Smithsonian for their "permanent preservation." The issue was dated 20 Feb. 1956, one day before the Myers & Weitzman description appeared. Curiously, and perhaps revealingly, it was the only issue of *Tropical Fish Hobbyist* that was dated to the day instead of just the month and year. (Rumor has it that Axelrod personally rushed to the Post Office with a hand-folded copy of the issue to validate the date.)

In May 1956, Leslie W. Ashdown, editor of the British magazine *Water Life*, petitioned the International Commission on Zoological Nomenclature (ICZN) to investigate the publications and rule which name had priority. "This fish is likely to become widely used by aquarists," Ashdown wrote, "and it is important therefore that the scientific name to be used for it should be determined without delay."[2] Ashdown's petition carefully avoided mentioning what many had suspected: that Axelrod backdated his publication.

The ICZN got on the case quickly. Schultz testified via letter that Axelrod had mailed a "printed tear sheet" from

continued on next page

the magazine on 18 Feb. 1956, which Schultz received two days later, 20 Feb. In addition, Axelrod had also sent Schultz a photocopied receipt from the U.S. Post Office indicating that the issued first mailed the same day (20 Feb.). Axelrod, also via letter, confirmed the dates, adding that some copies of the issue were distributed to local New Jersey pet shops on 17 Feb. and/or 18 Feb.

Axelrod provided more details in the next issue of his magazine. In fact, he more or less admitted that he rushed Schultz' description into print. He first received the manuscript via special delivery on 16 Feb., had it typeset within three hours, and rushed it back to Schultz for proofreading. He received Schultz' comments the next day. Since the issue was already on the press, corrections were made directly on the plate.

In her written testimony, Margaret H. Storey, Associate Editor of the *Stanford Ichthyological Bulletin*, confirmed that the description of *Hyphessobrycon cardinalis* was printed and first distributed on 21 Feb. 1956.

The ICZN ruled by a vote of 19-5 in favor of Schultz' name. (One of the ICZN members who voted in favor of Schultz was none other than the legendary evolutionary biologist Ernst Mayr.) We do not know the reasons behind the five votes in favor of Myers & Weitzman. We do know, however, that one of the issues the ICZN considered was that *H. cardinalis* was clearly published as a voluntary act of publication by its authors in a journal normally serving as a vehicle of taxonomic publication, whereas *C. axelrodi* — based on a personal letter — was involuntarily published in a lay journal at the discretion and for the personal benefit of its publisher.

Some members of the voting panel reportedly later told Innes or Myers that the commission suspected that something shady had gone on, but that they couldn't prove it. Based on the evidence at hand, *Cheirodon axelrodi* beat *Hyphessobrycon cardinalis* by one day.

According to Fletcher, Fred Cochu "had gone to his grave resenting that 'his' fish was named for someone who had nothing to do with its discovery or introduction."[11] Many aquarists and ichthyologists to this day believe Axelrod got away with fudging the dates, a suspicion buttressed by his penchant for lies, tall tales, womanizing and future legal troubles (including 18 months in federal prison for tax fraud). My hunch is that Axelrod did not backdate his publication (why would the reputable Schultz allow that?), but that he knew he was in a race and did everything he could to rush Schultz' letter into print. If Myers had not delayed his description, or if Axelrod had gotten to the post office after it had closed, it's very possible that the Cardinal Tetra would today have the name *cardinalis*.

[1] Fletcher, A. M. and R. LaCorte. 2010. The Cardinal Tetra. Modern Aquarium (Greater City Aquarium Society - New York). 17 (10) [Dec.]: 7–9. https://issuu.com/modernaquarium/docs/december_2010_full-e

[2] Hemming, F. 1957. Opinion 485. Determination of the relative priority to be assigned to the names *Cheirodon axelrodi* Schultz (L.P.) and *Hyphessobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.) (Class Pisces), both being names published in February 1956. Opinions and declarations rendered by the International Commission on Zoological Nomenclature 17 (7): 87–104.

Order CHARACIFORMES

[no common name]

Family **ACESTRORHAMPHIDAE**

Subfamily **STICHONODONTINAE** Eigenmann 1910

Hasemania diastatos, paratype, male, 25.2 mm SL. From: Dagosta, F. C. P., M. M. F. Marinho and P. Camelier. 2014. A new species of *Hyphessobrycon* Durbin (Characiformes: Characidae) from the middle rio São Francisco and upper and middle rio Tocantins basins, Brazil, with comments on its biogeographic history. Neotropical Ichthyology 12 (2): 365–375.

Hasemania

Ellis 1911

-ia (L. suffix), belonging to: American zoologist John D. Haseman (1882–1969), field collector for the Carnegie Museum of Natural History, "who collected all of the specimens of this genus thus far known" [Ellis is married name of Durbin, who described many small tetras; placed in Tetragonopterinae by some workers]

***Hasemania diastatos* (Dagosta, Marinho & Camelier 2014)** *diastatós* (διαστατός), divided or distended, referring to distribution in both the rio São Francisco and rio Tocantins basins of Brazil

***Hasemania hanseni* (Fowler 1949)** in honor of aquarium-fish exporter and breeder Henrik Hansen, Gulf Fish Hatchery (Florida, USA), who "obtained" living specimens from Brazil and send them to Fowler for study

***Hasemania maxillaris* Ellis 1911** Latin for of or belonging to the jaw, presumably referring to maxillary with two small tricuspid teeth, compared to toothless maxillary of *H. melanura* and *H. bilineata* (=*Coptobrycon bilineatus*, Gymnocharacinae) [Ellis is married name of Durbin, who described many small tetras]

***Hasemania melanura* Ellis 1911** black-tailed, from *mélanos* (μέλανος), genitive of *mélas* (μέλας), black, and *ourá* (οὐρά), tail, referring to distinct blackish caudal spot extending to the tips of middle caudal-fin rays [Ellis is married name of Durbin, who described many small tetras]

***Hasemania nana* (Lütken 1875)** proposed as *Tetragonopterus nanus* (L.), dwarf (a noun, but since then incorrectly treated as an adjective), referring to its size ("Statura minutissima")

***Hasemania negodagua* (Lima & Gerhard 2001)** named for Nego D'água, a legendary man-like creature from central Brazil, said to dwell in the bottoms of rivers and attack inattentive fishermen at night

***Hasemania piatan* Zanata & Serra 2010** named for Piatã, county in Bahia State, northeastern Brazil, where it occurs

Moenkhausia

Eigenmann 1903

-ia (L. suffix), belonging to: American geneticist and ichthyologist William J. Moenkhaus (1871–1947), Eigenmann's colleague at Indiana University

***Moenkhausia abyss* Oliveira & Marinho 2016** from *ábyssos* ἄβυσσος), the deep sea (but here meaning deep water in general), referring to its probable habitat, the first case of a South American characiform with specializations (pale coloration, big eyes) for life in deeper water

***Moenkhausia affinis* Steindachner 1915** Latin for related, referring to its similarity to *M. jamesi*

***Moenkhausia agnesae* Géry 1965** in honor of Agnes Frobenius (no other information available), at the request of Brazilian ethnographer and fish collector Harald Schultz (1909–1966), who collected holotype

***Moenkhausia alesis* Petrolli & Benine 2015** *álesis* (ἄλεσις), grinding (noun), referring to robust teeth of premaxilla and dentary, a diagnostic feature of the *M. jamesi* species complex (which includes this species)

***Moenkhausia andrica* Reia, Oliveira & Benine 2021** Neo-Latin adjective derived from *andrós* (ἀνδρός), genitive of *anḗr* (ἀνήρ), man or male, referring to bony fin hooks, a common male characid dimorphic character, present in both sexes

***Moenkhausia atahualpiana* (Fowler 1907)** *-ana* (L.), belonging to: the Atahualpa, "among the last of the unfortunate Incas of Peru, who was strangled by the Spaniards at Cajamarca, August 29, 1533"

***Moenkhausia aurantia* Bertaco, Jerep & Carvalho 2011** Neo-Latin for orange-colored, referring to its "distinctive" orangish coloration

***Moenkhausia aurora* Reia, Silva, Oliveira & Benine 2024** Latin for dawn or sunrise, referring to the red, orange and gold colors of living specimens

***Moenkhausia barbouri* Eigenmann 1908** in honor of American herpetologist Thomas Barbour (1884–1946), and later director of the Harvard Museum of Comparative Zoology and a wealthy patron of science)

***Moenkhausia bellasomniosa* Soares, Lima, Bastos, Rapp Py-Daniel 2019** *bella*, from *bellus* (L.), beautiful; *somniosa* (L.), sleepy, i.e., sleeping

beauty, referring to the Serra do Curicuriari, a granitic massif situated immediately south of the rio Curicuriari (Amazonas, Brazil), type locality; locals call the massif *Bela adormecida* (sleeping beauty) due to its perceived rough resemblance to a lying young woman

Moenkhausia beninei **Lima & Soares 2018** in honor of "dear friend" Ricardo C. Benine, São Paulo State University, for his contributions for the knowledge of characid fishes, particularly those belonging in *Moenkhausia*

Moenkhausia bonita **Benine, Castro & Sabino 2004** named for rio Baía Bonita, rio Paraguay basin, Bonito, Mato Grosso, Brazil, type locality

Moenkhausia britskii **Azevedo-Santos & Benine 2016** in honor of Brazilian ichthyologist Heraldo A. Britski (b. 1934), Universidade de São Paulo, who collected holotype, for his "enormous and valuable" contributions to Neotropical ichthyology

Moenkhausia browni **Eigenmann 1909** in memory of British geologist Charles Barrington Brown (1839–1917), who discovered the "most beautiful" Kaieteur Falls of Guyana (near type locality) in 1870

Moenkhausia cambacica **Marinho, Ohara & Dagosta 2021** a Brazilian popular name for *Coereba flaveola*, a small Neotropical bird whose coloration resembles that of this species (bright-yellow underparts, dark-back coloration and a dark line horizontally crossing region of eye horizontally, contrasting with a light area above it)

Moenkhausia celibela **Marinho & Langeani 2010** combination of *kēlís* (κηλίς), spot, and *bélos* (βέλος), arrow, referring to roughly triangular spot on middle caudal-fin rays

Moenkhausia ceros **Eigenmann 1908** etymology not explained, presumably from *kerás* (Gr κεράς), horn, referring to "large retrorse hook" on each side of first fully developed anal-fin ray on males

Moenkhausia chlorophthalma **Sousa, Netto-Ferreira & Birindelli 2010** green-eyed, from *chlōrós* (χλωρός), green, and *ophthalmós* (ὀφθαλμός), eye, referring to iridescent green eyes on living specimens

Moenkhausia chrysargyrea **(Günther 1864)** *chrysós* (χρυσός), gold; *argyrea*, from *argýreios* (ἀργύρειος), white metal (i.e., silver), referring to silvery coloration with "golden reflexions"

Moenkhausia comma **Eigenmann 1908** named for its comma-shaped humeral spot

Moenkhausia conspicua **Soares & Bührnheim 2016** Latin for visible, referring to two dark stripes, one extended along midbody and the other along anal-fin base

Moenkhausia costae **(Steindachner 1907)** patronym not identified, probably in honor of Italian zoologist Oronzo Gabriele Costa (1787–1867) [although named after a man, "ae" is an acceptable way to form a genitive from nouns that end in "a"]

Moenkhausia cotinho **Eigenmann 1908** in honor of Major J. M. S. Cotinho, "Brazilian attaché" of the Thayer Expedition to Brazil (1865–1866), during which holotype was collected [presumably a noun in apposition, without the genitive "*i*"]

Moenkhausia crisnejas **Pearson 1929** named for Río Crisnejas, Peru, type locality

Moenkhausia dasalmas **Bertaco, Jerep & Carvalho 2011** named for rio das Almas basin, Goiás, Brazil, type locality

Moenkhausia diamantina **Benine, Castro & Santos 2007** named for Chapada Diamantina, the center of Bahia State, Brazil, where type locality (Foz do rio Toalhas, rio Paraguaçu basin) is situated

Moenkhausia dichroura **(Kner 1858)** *di-*, from *dýo* (δύο), two; *chrōma* (χρῶμα), skin or color; *ourá* (οὐρά), tail, referring to distinctive black-and-white tail

Moenkhausia dorsinuda **Zarske & Géry 2002** *dorsi-*, from *dorsalis* (Neo-Latin), dorsal; *nuda* (L.), bare or naked, referring to scaleless anterior half of predorsal region

Moenkhausia eurystaenia **Marinho 2010** *eurýs* (εὐρύς), wide or broad; *taenia* (L.), from *tainía* (ταινία), band or ribbon, referring to broad, dark stripe, from opercle to end of caudal peduncle

Moenkhausia goya **Deprá, Azevedo-Santos, Vitorino Júnior, Dagosta, Marinho & Benine 2018** named for the Goyá, a South American ethnic group who lived in the central region of Brazil and resisted the encroachment of their territories until the 19th century; they also originated the name of the state of Goiás, where this tetra mostly occurs

Moenkhausia gracilima **Eigenmann 1908** superlative of *gracilis* (L.), thin or slender, allusion not explained, described as a subspecies of *M. lepidura*, presumably referring to its slenderer body depth compared with other subconspecifics

Moenkhausia grandisquamis **(Müller & Troschel 1845)** *grandis* (L.), large; *squamis*, scale, Neo-Latin scientific adjective of *squama* (L.), scale, referring to its "very large" (translation) body scales

Moenkhausia guaruba **Lima, Vita, Dutra, Ohara & Pastana 2023** Brazilian popular name for the Golden Parakeet *Guaruba guarouba*, a golden-yellow parrot native to the Brazilian Amazon domain, alluding to the fish's "intense" yellow fins

Moenkhausia hasemani **Eigenmann 1917** in honor of American zoologist John D. Haseman (1882–1969), Eigenmann's student and field collector for the Carnegie Museum of Natural History, who collected holotype

Moenkhausia heikoi **Géry & Zarske 2004** in honor of German explorer and ornamental fish wholesaler and supplier Heiko Bleher (1944–2025), who collected holotype

Moenkhausia hemigrammoides **Géry 1965** *-oides*, Neo-Latin from *eī́dos* (εἶδος), having the form of: "strongly resembling" *Hemigrammus unilineatus*

Moenkhausia hysterosticta **Lucinda, Malabarba & Benine 2007** *hysteros* (ὕστερος), after or posterior; *sticta*, from *stiktós* (στικτός), marked or spotted, referring to humeral spot, which is located posteriorly on body side

Moenkhausia icae **Eigenmann 1908** of the Iça River basin, Brazil, type locality

Moenkhausia inrai **Géry 1992** in honor of the work of I.N.R.A. (Institut national de la Recherche agronomique) of Guyana, whose "ichthyofaunal research has recently and regretfully been abandoned" (translation)

Moenkhausia intermedia **Eigenmann 1908** Latin for intermediate, allusion not explained nor evident (proposed as a subspecies of *M. dichroura* but not described as an intermediate form between two or more taxa)

Moenkhausia iris **Marinho & Dagosta 2023** *íris* (ἶρις), rainbow, referring to its colorful body, containing the different colors of the rainbow

Moenkhausia ischyognatha **Petrolli & Benine 2015** strong-jawed, from *ischýō* (ἰσχύω), to be strong, and *gnáthos* (γνάθος), jaw, referring to strong musculature associated to the dentary, and robust teeth of the premaxilla and dentary, a diagnostic feature of the *M. jamesi* species complex (to which this species belongs)

Moenkhausia jamesi **Eigenmann 1908** 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

Moenkhausia justae **Eigenmann 1908** in honor of "Dr. Justa" (no other information available), a Brazilian who collected holotype

Moenkhausia lata **Eigenmann 1908** Latin for wide or broad; described as a subspecies of *M. lepidura*, probably referring to its deeper body

Moenkhausia latissima **Eigenmann 1908** Latin for broadest or very broad, allusion not explained, perhaps referring to its "very deep" body

Moenkhausia lepidura **(Kner 1858)** *lepidus* (L.), fine, pleasant or elegant;

Moenkhausia iris, paratype, 51.3 mm SL. Photo by Oliver Lucanus. From: Marinho, M. M. F. and F. C. P. Dagosta. 2023. On a new colorful species of *Moenkhausia* (Characiformes: Characidae) from the upper rio Madeira basin at the Chapada dos Parecis, Brazil, with comments on its conservation and putative biogeographic history. Journal of Fish Biology 103 (5): 1122–1128.

ourá (οὐρά), tail, referring to its attractive caudal fin, dark-edged on upper lobe and orange near base

Moenkhausia levidorsa **Benine 2002** *levis* (L.), smooth; *dorsa*, variation of *dorsum* (L.), back, referring to absence of scales along predorsal median region [although *dorsa* suggests a feminine adjective, author says name is a noun]

Moenkhausia lopesi **Britski & de Silimon 2001** in honor of Balzac Santana Lopes, head of the Fisheries Station of the Moto Grossa Comapny of Research, the authors' collecting companion in the Pantanal (he also helped collect holotype)

Moenkhausia loweae **Géry 1992** in honor of British tropical-fish ecologist Rosemary Lowe-McConnell (1921–2014), who collected holotype

Moenkhausia madeirae **Fowler 1913** of Madeira, referring to the upper and middle Madeira River basin (Rondônia and Mato Grosso, Brazil), where it occurs

Moenkhausia margitae **Zarske & Géry 2001** in honor of the senior author's wife, Margit [see also *Hyphessobrycon margitae*]

Moenkhausia megalops **(Eigenmann 1907)** *mégas* (μέγας), big; *ṓps* (ὦψ), eye, probably referring to larger eye compared with the allied *M. grandisquamis*

Moenkhausia metae **Eigenmann 1922** of the upper Meta River basin, Colombia, where it is endemic

Moenkhausia miangi **Steindachner 1915** of the Miang River, at the border of Venezuela and Bolivia, type locality

Moenkhausia mikia **Marinho & Langeani 2010** from *mikiawu*, common name employed by the Tuyuka people (who live at the upper rio Tiquié, type locality) for species of the *M. lepidura* complex

Moenkhausia moisae **Géry, Planquette & Le Bail 1995** in honor of French microbiologist Moïse Berniac-Bereau, a senior researcher with I.N.R.A. (Institut national de la Recherche agronomique, Guyana), since its inception in 1975

Moenkhausia monicae **Marinho, Dagosta, Camelier & Lima 2016** in honor of friend and "renowned" ichthyologist Mônica Toledo-Piza Ragazzo (Universidade de São Paulo), for her contributions to the systematics of characiform fishes

Moenkhausia mutum **Dagosta & Marinho 2016** Brazilian popular name of the curassow birds of the genus *Crax*, which are typically dark colored like the fins of this species; also refers to the Nova Mutum Municipality (Mato Grosso, Brazil), type locality

Moenkhausia naponis **Böhlke 1958** *-is*, Latin genitive singular of: allusion not explained, probably referring to Napo Province, Ecuador (type locality) and/or to Napo River system, where it occurs

Moenkhausia newtoni **Travassos 1964** in honor of Brazilian entomologist Newton Dias dos Santos (1916–1989), for his contributions to the fish collection at the Museu Nacional, Universidade Federal do Rio de Janeiro

Moenkhausia nigromarginata **Costa 1994** *nigro*, from *niger* (L.), dark or black; *marginata* (L.), edged or bordered, referring to black anterior margins of pelvic and anal fins

Moenkhausia orteguasae **Fowler 1943** of Río Orteguasa, Colombia, type locality

Moenkhausia ovalis **(Günther 1868)** Latin for oval, presumably referring to its shape, "height of body is one-half the total length (without caudal)"

Moenkhausia pankilopteryx **Bertaco & Lucinda 2006** *pan*, from *pā́s* (πᾶς), all or whole; *ankýlos* (ἀγκύλος), hooked; *ptéryx* (πτέρυξ), wing or fin, referring to hooks on all fins in males

Moenkhausia parecis **Ohara & Marinho 2016** named for the Chapada dos Parecis (plateau that encompasses type locality), an important watershed that separates tributaries of three basins: rio Madeira, rio Tapajós and rio Paraguai, Brazil

Moenkhausia petymbuaba **Lima & Birindelli 2006** Tupí word for the Portuguese *cachimbo*, or smoking pipe, referring to Serra do Cachimbo, Brazil, type locality

Moenkhausia phaeonota **Fink 1979** *phaiós* (φαιός), dark or gray (Fink said "dusky brown"), *-nota* (L.), having the attribute or quality of, referring to its color pattern

Moenkhausia pirahan **Mathubara & Toledo-Piza 2020** named for the Pirahã tribe, who live close to type locality in the county of Humaitá, Amazonas State, Brazil

Moenkhausia plumbea **Sousa, Netto-Ferreira & Birindelli 2010** Latin for "of lead," i.e., lead-colored, referring to color of midlateral stripe below unpigmented stripe in live specimens

Moenkhausia restricta **Soares & Benine 2019** Latin for tight or limited, referring to its uncommonly high number of transversal scale rows in a somewhat shallow-bodied species

Moenkhausia robertsi **Géry 1964** in honor of tropical-fish farmer and dealer Jack Roberts, who collected holotype

Moenkhausia rondoni **Mathubara & Toledo-Piza 2020** in honor of Cândido Rondon (1865–1958), Brazilian army engineer and explorer, who supported the native populations of Brazil his entire life; the state of Rondônia, where this species is widely distributed, was also named in his honor

Moenkhausia rubra **Pastana & Dagosta 2014** Latin for red, referring to reddish coloration of body, and dorsal, adipose and caudal fins in live specimens

Moenkhausia schultzi **Fernández-Yépez 1950** in honor of Leonard P. Schultz (1901–1986), Curator of Fishes, U.S. National Museum, for his "interesting" (translation) publications on the fishes of Venezuela

Moenkhausia shideleri **Eigenmann 1909** in honor of Mr. S. E. Shideler, volunteer assistant who collected holotype and "gave most effective help" during Eigenmann's Guyana expedition

Moenkhausia simulata **(Eigenmann 1924)** Latin for copied or imitated, referring to its very close appearance to *M. latissima*

Moenkhausia solaris **Silva, Santana & Marinho 202**5 Latin for solar or of the sun, referring to bright gold color of body and red color of the adipose and caudal fin in live specimens

Moenkhausia sthenosthoma **Petrolli & Benine 2015** strong-mouthed, from *sthénos* (σθένος), strong, and *stóma* (στόμα), mouth (incorrectly spelled *sthoma*), referring to strong musculature associated to the dentary, and robust teeth of premaxilla and dentary, a characteristic feature of the *M. jamesi* species complex (to which this species belongs)

Moenkhausia surinamensis **Géry 1965** *-ensis*, Latin suffix denoting place: Suriname, where type locality (Brownscreek, between Saramacca and Suriname river systems) is situated

Moenkhausia takasei **Géry 1964** in honor of Japanese-born Brazilian tropical-fish retailer and aquarist Roberto Takase, "one of the fish-collection pioneers in the Brazilian Amazon," who collected holotype

Moenkhausia tergimacula **Lucena & Lucena 1999** *tergum* (L.), back; *macula* (L.), stain, mark or spot, referring to saddle-like mark on dorsal portion of body immediately before dorsal-fin origin

Moenkhausia tridentata **Holly 1929** *tri-* (L.), three; *dentata* (L.), toothed, referring to three pointed teeth on upper jaw

Moenkhausia venerei **Petrolli, Azevedo-Santos & Benine 2016** in honor of Brazilian ichthyologist Paulo César Venere (Universidade Federal de Mato Grosso, Campus Universitário do Araguaia), who collected holotype, and for his contributions to our knowledge of the Rio Araguaia ichthyofauna of Brazil

Moenkhausia vittata **(Castelnau 1855)** Latin for banded, referring to a "very clear line on the sides, resembling a band of silver" (translation)

Moenkhausia xinguensis **(Steindachner 1882)** *-ensis*, Latin suffix denoting place: Xingú River basin, Brazil, where it is endemic

Moenkhausia zonata **(Eigenmann 1908)** Latin for banded, referring to "cross-bar" on caudal fin

Nematocharax

Weitzman, Menezes & Britski 1986

nḗmatos (νήματος), threaded, referring to long, thread-like extensions of dorsal, anal and pelvic fins; *Charax*, typical genus of the Characiformes, from *chárax* (χάραξ), a pointed stake of a palisade, referring to densely packed sharp teeth, a common root-name formation in the order

Nematocharax varii **Barreto, Silva, Batalha-Filho, Affonso & Zanata 2018** in honor of Richard P. Vari (1949–2016), National Museum of Natural History, Smithsonian Institution (Washington, D.C., USA), for his "outstanding" contribution to the knowledge of South American freshwater fishes

Nematocharax venustus **Weitzman, Menezes & Britski 1986** Latin for beautiful, elegant or graceful, referring to "graceful flowing" shape of dorsal, anal and pelvic fins

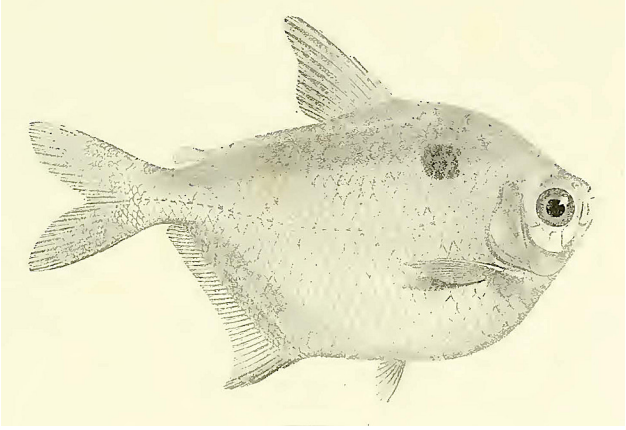
Nematocharax varii. From: Barreto, S. B., A. T. Silva, H. Batalha-Filho, P. R. A. M. Affonso and A. M. Zanata. 2018. Integrative approach reveals a new species of *Nematocharax* (Teleostei: Characidae). Journal of Fish Biology 93 (6): 1151–1162.

Stichonodon

Eigenmann 1903

stíchos (στίχος), line or row; *odon*, from *odoús* (ὀδούς), tooth, allusion not explained, presumably referring to two series of notched teeth on premaxillary

Stichonodon insignis **(Steindachner 1876)** Latin for distinguished by marks, presumably referring to large round humeral spot



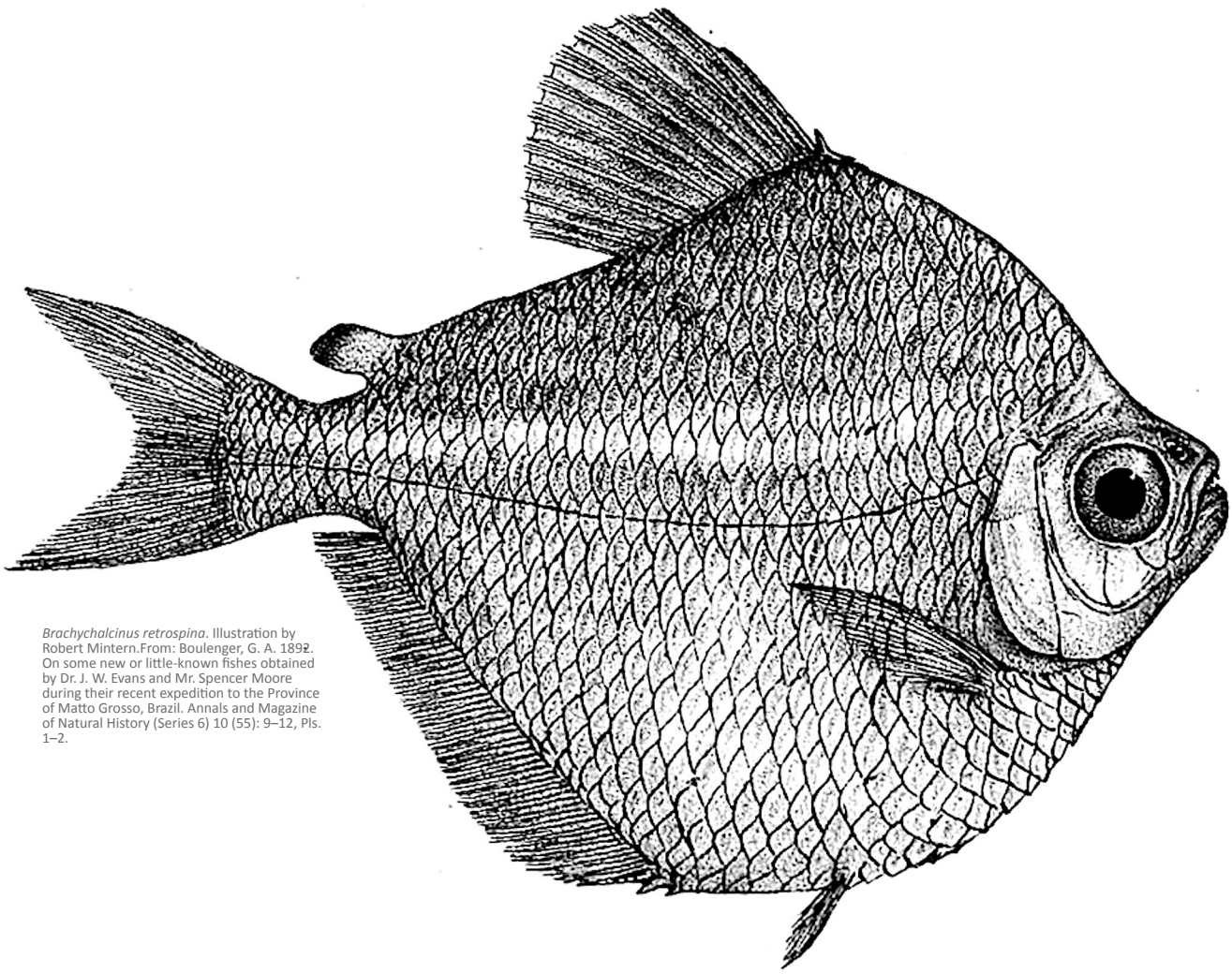
Stichonodon insignis. Illustration by Eduard Konopicky. From: Steindachner, F. 1876. Ichthyologische Beiträge (V). Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe 74 (1. Abth.): 49–240, Pls. 1–15.

Order CHARACIFORMES

Discus Tetras

Family **ACESTRORHAMPHIDAE**

Subfamily **STETHAPRIONINAE** Eigenmann 1907



Brachychalcinus retrospina. Illustration by Robert Mintern.From: Boulenger, G. A. 1892. On some new or little-known fishes obtained by Dr. J. W. Evans and Mr. Spencer Moore during their recent expedition to the Province of Matto Grosso, Brazil. Annals and Magazine of Natural History (Series 6) 10 (55): 9–12, Pls. 1–2.

Brachychalcinus

Boulenger 1892

brachýs (βραχύς), short, perhaps referring to short, compressed body; *Chalcinus* (meaning brazen), a genus of characins (now a synonym of *Triportheus*), i.e., a short *Chalcinus*, allusion not explained nor evident

***Brachychalcinus copei* (Steindachner 1882)** in honor of American zoologist-paleontologist Edward Drinker Cope (1840–1897), who described the genus (*Stethaprion*) in which this species was originally placed

***Brachychalcinus nummus* Böhlke 1958** Latin for a coin, allusion not explained, probably referring to circular (i.e., coin-like) shape of body

***Brachychalcinus orbicularis* (Valenciennes 1850)** Latin for circular or disc-shaped, referring to its round body

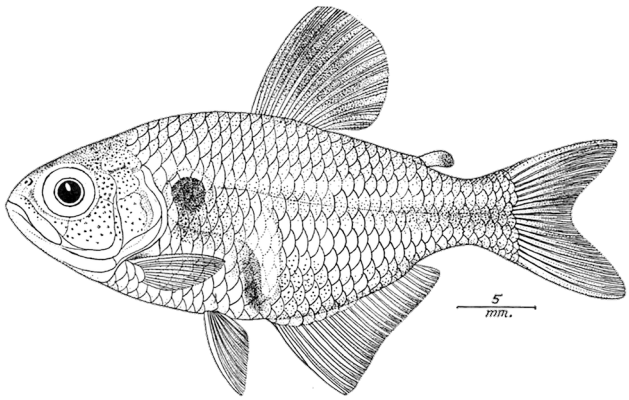
***Brachychalcinus parnaibae* Reis 1989** Latinization of Parnaíba, referring to Parnaíba River basin, where type locality (a pond in Serra das Confusões, Piauí, Brazil) is situated

***Brachychalcinus reisi* Garcia-Ayala, Ohara, Pastana & Benine 2017** in honor of Brazilian ichthyologist Roberto E. Reis, Pontificia Universidade Católica do Rio Grande do Sul, for his "great" contributions to the knowledge of the Stethaprioninae and Neotropical ichthyology as a whole

***Brachychalcinus retrospina* Boulenger 1892** *retro-* (L.), behind; *spina* (L.), thorn or spine, probably referring to dorsal fin, which is behind a movable, anteriorly directed spine

***Brachychalcinus sabaji* Garcia-Ayala, Lima, Gama & Benine 2024** in honor of Mark Henry Sabaj (b. 1969), fish curator, Academy of Natural Sciences of Philadelphia of Drexel University, for his "outstanding" contribution to the knowledge of South American freshwater fishes

***Brachychalcinus signatus* Garcia-Ayala & Benine 2020** Latin for marked, referring to conspicuous second humeral spot (compared with faint second humeral spot in congeners)



Ectrepopterus uruguayensis. Illustration by Henry Weed Fowler. From: Fowler, H. W. 1943. Notes and descriptions of new or little known fishes from Uruguay. Proceedings of the Academy of Natural Sciences of Philadelphia 95: 311–334. [Errata on p. 346.]

Ectrepopterus

Fowler 1943

ektrépō (ἐκτρέπω), to reverse; *pterus*, from *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, proposed as a subgenus of *Megalamphodus* (=*Hyphessobrycon*) in which the upper caudal lobe is shorter than lower

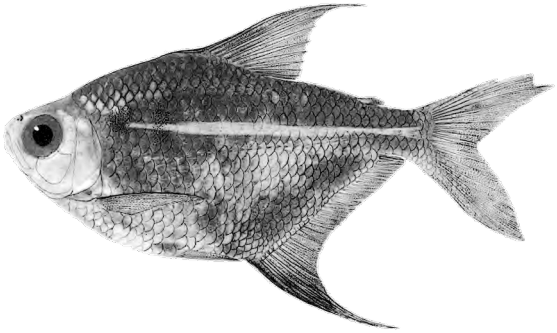
***Ectrepopterus uruguayensis* (Fowler 1943)** *-ensis*, Latin suffix denoting place: Uruguay, where type locality (not recorded) is situated

Orthospinus

Reis 1989

orthós (ὀρθός), straight; *spinus*, from *spina* (L.), thorn or spine, referring to simple and straight predorsal spine [replacement name for *Buritia* Brant 1974, preoccupied by *Buritia* Young 1952 in Insecta]

***Orthospinus franciscensis* (Eigenmann 1914)** *-ensis*, Latin suffix denoting place: São Francisco River basin, Brazil, where it is endemic



Probably first-published image of *Orthospinus franciscensis*. From: Eigenmann, C. H. 1927. The American Characidae [Part IV]. Memoirs of the Museum of Comparative Zoology 43 (4): 311–428, 24 pls.

Poptella

Eigenmann 1908

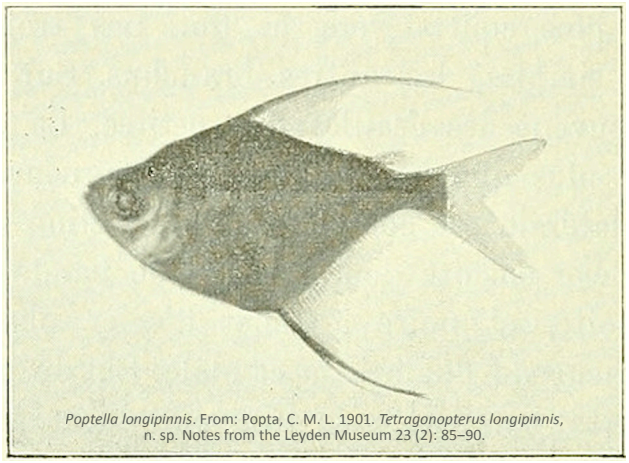
-ella, Latin diminutive connoting endearment: named for Canna Maria Louise Popta (1860–1929), Curator of Reptiles, Amphibians and Fishes at the Rijksmuseum van Natuurlijke Historie (Leiden, Netherlands), who described *P. longipinnis* in 1901 and donated one of the types to Eigenmann's collection at Indiana University

***Poptella abathes* Garcia-Ayala, Oliveira & Benine 2025** *abathḗs* (ἀβαθής), shallow, referring to the comparatively lower depth of its body compared with congeners

***Poptella actenolepis* Garcia-Ayala & Benine 2019** *acteno-*, from *aktéanos* (ἀκτέανος), without possession or property (i.e., poor or wanting); *lepís* (λεπίς), scale, referring to the lower number of transversal scale rows compared with congeners

***Poptella brevispina* Reis 1989** *brevis* (L.), short; *spina* (L.), thorn or spine, referring to small size (2.6–4.2% of SL) of predorsal spine

***Poptella compressa* (Günther 1864)** Latin for squeezed together, referring to its "much compressed and elevated" body



Poptella longipinnis. From: Popta, C. M. L. 1901. *Tetragonopterus longipinnis*, n. sp. Notes from the Leyden Museum 23 (2): 85–90.

***Poptella fortispina* Garcia-Ayala & Benine 2023** *fortis* (L.), strong; *spina* (L.), thorn or spine, referring to it robust predorsal spine

***Poptella fuscata* Garcia-Ayala & Benine 2020** Latin for dusky or dark, referring to melanophores marking posterior half of body and dorsal and anal fins

***Poptella longipinnis* (Popta 1901)** *longus* (L.), long; *pinnis*, Neo-Latin adjective of *pinna* (L.), fin, i.e., finned, referring to extended dorsal- and pectoral-fin rays

***Poptella magnuspina* Garcia-Ayala, Oliveira & Benine 2025** *magnus* (L.), great (i.e., large); *spina* (L.), thorn or spine, referring to its elongate predorsal spine

***Poptella paraguayensis* (Eigenmann 1907)** *-ensis*, Latin suffix denoting place: Paraguay, described from Paraguayan specimens previously identified as *P. compressus*

***Poptella spinula* Garcia-Ayala, Oliveira & Benine 2025** diminutive of spina (L.), thorn or spine, referring to its short predorsal spine

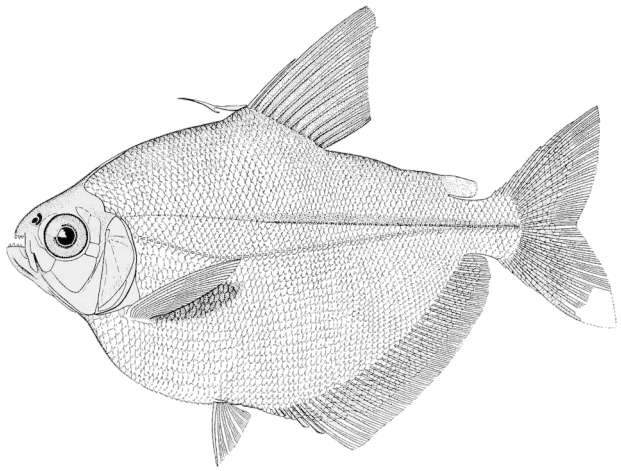
Stethaprion

Cope 1870

stḗthos (στῆθος), breast or chest; *príōn* (πρίων), saw, allusion not explained, probably referring to small serrations on ventral edge of *S. erythrops*

***Stethaprion crenatum* Eigenmann 1916** Latin for notched or crenate (i.e., having a round-toothed or scalloped edge), the "concentric free edges of the scales crenate

***Stethaprion erythrops* Cope 1870** *erythrós* (ἐρυθρός), red; *ṓps* (ὦψ), eye, referring to its dark-red iris



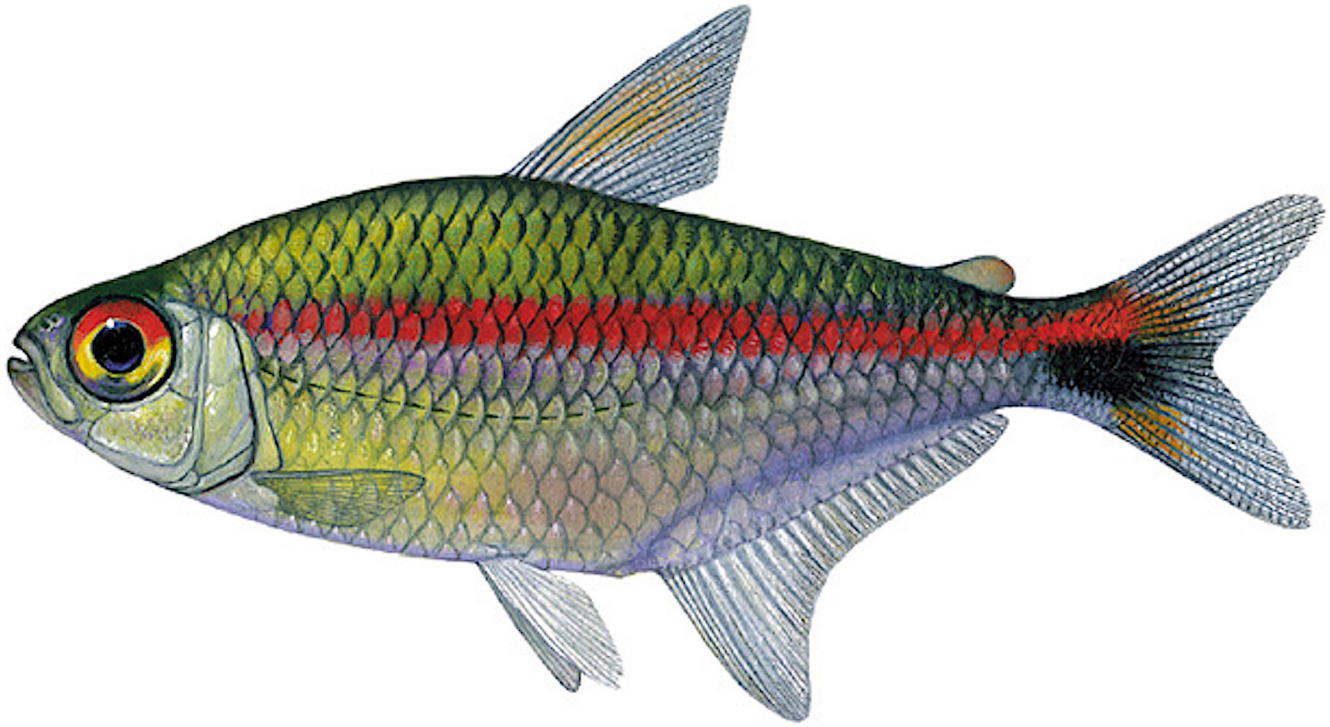
Stethaprion crenatum (with damaged lower caudal-fin lobe reconstructed). From: Eigenmann, C. H. 1916. New and rare fishes from South American rivers. Annals of the Carnegie Museum 10 (1-2): 77–86, Pls. 13–16.

Order CHARACIFORMES

[no common name]

Family **ACESTRORHAMPHIDAE**

Subfamily **PRISTELLINAE** Géry & Boutière 1964



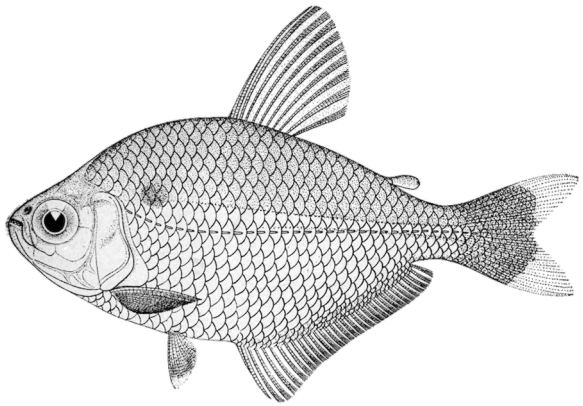
Hemigrammus rubrostriatus. Illustration by Jürgen Scholz. From: Zarske, A. 2015. *Hemigrammus rubrostriatus* spec. nov. - ein neuer Salmler aus Kolumbien und Revalidierung von Hemigrammus falsus Meinken, 1958 (Teleostei: Ostariophysi: Characidae). Vertebrate Zoology 65 (1): 3–14.

Gymnocorymbus

Eigenmann 1908

gymnós (γυμνός), bare or naked; *kórymbos* (κόρυμβος), summit, referring to scaleless (and humped) predorsal area of *G. thayeri*

***Gymnocorymbus bondi* (Fowler 1911)** in honor of Francis ("Frank") E. Bond (1867–1923), American banker, stockbroker and amateur ornithologist, who collected specimens in the Orinoco delta of Venezuela for the Academy of Natural Sciences of Philadelphia, including holotype of this species[1]



Gymnocorymbus bondi. From: Fowler, H. W. 1911. Some fishes from Venezuela. Proceedings of the Academy of Natural Sciences of Philadelphia 63: 419–437.

[1] Biographical footnote: Francis Bond is the father of ornithologist James Bond (see *Synodus bondi* in Synodontidae), whose name Ian Fleming used for his 007 spy hero.

***Gymnocorymbus flaviolimai* Benine, Melo, Castro & Oliveira 2015** in honor of Brazilian ichthyologist Flávio César Thadeo de Lima (b. 1974), Universidade Estadual de Campinas, a "dear friend," for his contribution to our knowledge of Neotropical ichthyology

***Gymnocorymbus ternetzi* (Boulenger 1895)** in honor of Swiss-born ichthyologist and naturalist Carl Ternetz (1870–1928), who "formed" the collection that contained holotype

***Gymnocorymbus thayeri* Eigenmann 1908** in memory of Stephen Van Rensselaer Thayer (1847–1871), volunteer on the Thayer Expedition to Brazil (1865–1866), during which holotype was collected, and son of financier and philanthropist Nathaniel Thayer, Jr. (1808–1883), who sponsored it

Hemigrammus

Gill 1858

hemi-, from *hḗmisys* (ἥμισυς), half; *grammus*, scientific Neo-Latin derived from *grammḗ* (γραμμή), line or stroke of the pen, referring to "abruptly discontinued" lateral line of *H. unilineatus*, i.e., ending at middle of body

***Hemigrammus aereus* Géry 1959** Latin for bronze, referring to bronze color of entire body [*species inquirenda*, provisionally included here]

***Hemigrammus amacayacu* Albornoz-Garzón, Méndez-López, DoNascimiento & Lima 2019** named for Parque Nacional Natural Amacayacu (Leticia, Amazonas, Colombia), type locality (*amacayacu* is a Quechua word meaning "river of the hammocks")

***Hemigrammus analis* Durbin 1909** Latin for anal, allusion not explained, possibly referring to its "short" anal fin

Hemigrammus apiaka **(Esgíucero & Castro 2017)** named for the Apiaká ethnic group of the rio Aripuanã, lower rio Madeira basin, Brazil, type locality (and source of the word *aripuanã*, meaning "stone water") [see also *Astyanax apiaka*]

Hemigrammus arua **Lima, Wosiacki & Ramos 2009** named for lago São Francisco do Alto Aruã, Pará, Brazil, type locality

Hemigrammus ataktos **Marinho, Dagosta & Birindelli 2014** *átaktos* (ἄτακτος), disordered or irregular, referring to variable perforation of lateral-line scales (completely pored on some specimens, irregularly pored on others)

Hemigrammus barrigonae **Eigenmann & Henn 1914** of Barrigona, Colombia, type locality

Hemigrammus bellottii **(Steindachner 1882)** in honor of Italian biologist-paleontologist Cristoforo Bellotti (1823–1919), who collected holotype and/or supplied specimens from his collection at Museo Civico di Storia Naturale (Milan, Italy)

Hemigrammus boesemani **Géry 1959** in honor of Dutch ichthyologist Marinus Boeseman (1916–2006), who noted the uniqueness of this taxon in 1948 but reported it as *H. micropterus*

Hemigrammus brevis **Ellis 1911** Latin for short, allusion not explained, possibly referring to short snout, little more than half length of eye, and/or short anal sheath, composed of five scales covering bases of first nine anal-fin rays [Ellis is married name of Durbin, who described many small tetras]

Hemigrammus changae **Ota, Lima & Hidalgo 2019** in honor of the late Fonchii Chang (1963–1999), Peruvian ichthyologist of Chinese and Japanese ancestry, Museo de Historia Natural (Lima, Peru), for her "considerable contribution in surveying the fishes of her native country, in the relatively little time she was active," which included collecting some of the type specimens of this species [she died, along with her motorista, in a boat accident near Lake Rimachi, Peru; she was wearing rubber boots, which filled with water and anchored her to the bottom, where she was shocked by an electric eel, knocked unconscious and drowned]

Hemigrammus coeruleus **Durbin 1908** alternate spelling of *caeruleus* (L.), dark blue, (but used here to mean blue in general), referring to "highly iridescent-blue stripe along one row of scales between base of pectoral and middle of anal fin"

Hemigrammus collettii **(Steindachner 1882)** patronym not identified, probably in honor of Norwegian zoologist Robert Collett (1842–1913), who described many fish species

Hemigrammus copei **(Steindachner 1882)** patronym not identified but clearly in honor of American zoologist-paleontologist Edward Drinker Cope (1840–1897), who described several South American fish species

Hemigrammus cupreus **Durbin 1918** Latin for of copper, referring to "rich copper" iridescence on caudal-peduncle scales

Hemigrammus cylindricus **Durbin 1909** Latin for cylindrical, allusion not explained, but Eigenmann (1918) described body shape as "Subcylindrical, or only slightly compressed"[2]

Hemigrammus diagonicus **Mendonça & Wosiacki 2011** scientific Neo-Latin for diagonal, referring to dark blotch on dorsal lobe of caudal fin, unique among congeners

Hemigrammus durbinae **Ota, Lima & Pavanelli 2015** in honor of Marion Durbin Ellis (née Durbin, 1887–1972), Carl Eigenmann's student and later a limnologist and environmental toxicologist, University of Missouri in Columbia, "who devoted herself diligently into the most comprehensive study on *Hemigrammus* so far"

Hemigrammus eigenmanni **(Géry 1964)** in honor of German-born American ichthyologist Carl H. Eigenmann (1863–1927), who described *Moenkhausia metae*, with which this species had been identified

[2] Eigenmann, C. H. 1918. The American Characidae [Part 2]. Memoirs of the Museum of Comparative Zoology 43 (2): 103–208, Pls. 3, 8–11, 13, 16–29, 33, 78–80, 93, 101.

Hemigrammus elegans **(Steindachner 1882)** Latin for elegant, fine or select, presumably referring to its coloration, including "milk-white" and "intensely violet" stripes along anal-fin edge, a "silver white metallic and shiny" (iridescent) longitudinal stripe along body, and "purple-fringed front edge" of dorsal fin (translations)

Hemigrammus erythrozonus **Durbin 1909** red-banded, from *erythrós* (ἐρυθρός), red, and *zonus*, Neo-Latin adjective of *zona* (L.), band, referring to "cherry-colored streak" along sides [Durbin is maiden name of Ellis, who described many small tetras]

Hemigrammus filamentosus **Zarske 2011** Latin for filamentous, referring to thread-like extensions of dorsal, anal and pelvic fins of males

Hemigrammus flavus **(Britzke, Troy, Oliveira & Benine 2018)** Latin for yellow, referring to yellowish color pattern of body in live specimens

Hemigrammus gracilis **(Lütken 1875)** Latin for thin or slender, referring to its slender shape

Hemigrammus grammicus **(Eigenmann 1912)** Latin for linear (i.e., lined), presumably referring to "black median line" on sides

Hemigrammus hyanuary **Durbin 1918** named for Lake Hyanuary, Brazil, type locality

Hemigrammus iota **Durbin 1909** *iota* (ι), ninth letter of Greek alphabet, referring to black I-shaped bar on caudal peduncle

Hemigrammus kuroobi **Reia & Benine 2019** from the Japanese *kuro*, black, and *obi*, band or belt, a martial arts term for the black-belt grade, referring to gradual development of conspicuous longitudinal black stripe of this species

Hemigrammus levis **Durbin 1908** Latin for smooth or bald, probably referring to its toothless maxillary

Hemigrammus lunatus **Durbin 1918** Latin for lunate (moon-shaped), presumably referring to its semicircular humeral spot

Hemigrammus machadoi **Ota, Lima & Pavanelli 2014** in honor of Brazilian ichthyologist Francisco de Arruda Machado, Universidade Federal de Mato Grosso (Brazil), for his "tireless dedication" in surveying the fishes of Mato Grosso, and his "struggle" for their conservation

Hemigrammus mahnerti **Uj & Géry 1989** in honor of Volker Mahnert (1943–2018), Austrian ichthyologist, arachnologist and parasitologist, then with the Museum d'histoire naturelle, Département d'Herpétologie et Ichthyologie (Geneva), who helped collect holotype

Hemigrammus marginatus **Ellis 1911** Latin for edged or bordered, referring to black margin on caudal fin [Ellis is married name of Durbin, who described many small tetras]

Hemigrammus matei **Eigenmann 1918** patronym not identified but probably in honor of fish culturist Paul Matte (1854–1922, note spelling), who operated a commercial import and breeding operation for aquarium fishes in Germany; the label on the type specimens identify him as the source of the material [*species inquirenda*, provisionally included here]

Hemigrammus megaceps **Fowler 1945** *mega-*, from *mégas* (μέγας), big; *-ceps* (Neo-Latin), headed, 2¾–3 times within body length, larger than heads of Peruvian congeners *H. schmardae* and *H.* (now *Bryconacidnus*) *paipayensis*

Hemigrammus melanochrous **Fowler 1913** *mélanos* (μέλανος), genitive of *mélas* (μέλας), black; *chrous*, from *chrŏs* (χρώς), skin color, i.e., swarthy, referring to its "general color," a "dull brownish" in alcohol

Hemigrammus melogrammus **(Eigenmann 1908)** *mélas* (μέλας), black; *grammus*, scientific Neo-Latin derived from *grammḗ* (γραμμή), line or stroke of the pen, referring to black line along base of anal fin [*grammḗ* is usually Latinized as *gramma*; despite its spelling here as *-grammus*, the name is treated as a noun]

Hemigrammus micropterus **Meek 1907** small-finned, from *mikrós* (μικρός), small, and *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, allusion not

explained, perhaps referring to shorter pectoral fins compared with *H. tridens* described on the same page

Hemigrammus microstomus **Durbin 1918** small-mouthed, from *mikrós* (μικρός), small, and *stóma* (στόμα), mouth, referring to its "very small" mouth

Hemigrammus mimus **Böhlke 1955** Latin for actor or mime, referring to its strong resemblance to *Microschemobrycon callops* and *M. casiquiare* (Characidae: Characinae), with which this species had been confused

Hemigrammus ora **Zarske, Le Bail & Géry 2006** Latin for coast, referring to its distribution along the coastal region of French Guiana

Hemigrammus orthus **Durbin 1909** etymology not explained, presumably from *orthós* (ὀρθός), straight, perhaps referring to its dark lateral stripe

Hemigrammus parana **Marinho, Carvalho, Langeani & Tatsumi 2008** referring to rio Paraná, São Paulo State, Brazil, type locality

Hemigrammus pretoensis **Géry 1965** *-ensis*, Latin suffix denoting place: Igarapé Préto (Black Creek), along Upper Amazon, near Belem, about 60 km below Leticia, Brazil, type locality

Hemigrammus rodwayi **Durbin 1909** patronym not identified but probably in honor of James Rodway (1848–1926), naturalist and travel writer, a member of Eigenmann's collecting trips in South America

Hemigrammus rubrostriatus **Zarske 2015** *rubrum* (L.), red; *striatus* (L.) furrowed or grooved (i.e., striped), referring to vermilion longitudinal band, which runs from operculum along body up to dorsal part of caudal peduncle and to rays of caudal fin

Hemigrammus schmardae **(Steindachner 1882)** patronym not identified but probably in honor of Austrian physician-naturalist Ludwig K. Schmarda (1819–1908) [although named after a man, "ae" is an acceptable way to form a genitive from nouns that end in "a"]

Hemigrammus serrazul **Ferreira, Ribeiro & Carvalho 2026** named for Serra Azul (type locality), the local portion of the so-called Serrana Province of Mato Grosso, Brazil, a range of escarped relief that serves as a watershed divide between the rio Cuiabá, Paraguai, and Arinos basins

Hemigrammus silimoni **Britski & Lima 2008** in honor of Brazilian biologist and environmental consultant Keve Zobogany de Szonyi de Silimon, who collected the type series, for his "long and continuous" efforts in documenting fishes from Mato Grosso, Brazil

Hemigrammus stictus **(Durbin 1909)** from *stiktós* (στικτός), marked or spotted, probably referring to "distinct" humeral spot

Hemigrammus taphorni **Benine & Lopes 2007** in honor of American ichthyologist Donald C. Taphorn (b. 1951), who collected holotype, and for his contributions to our knowledge of neotropical ichthyology

Hemigrammus tocantinsi **Carvalho, Bertaco & Jerep 2010** of the upper rio Tocantins basin, Goiás, Brazil, where it is endemic

Hemigrammus tridens **Eigenmann 1907** *tri-* (L.), three; *dens* (L.), tooth, probably referring to two narrow tricuspid teeth on outer row of premaxillary

Hemigrammus tupebas **(Esgíucero & Castro 2017)** named for the Tupebas ethnic group of the lower rio Solimões, including its tributary the rio Tefé, Brazil, type locality (and source of the word *tefé*, meaning a very small community far from regional centers)

Hemigrammus ulreyi **(Boulenger 1895)** in honor of American marine biologist Albert B. Ulrey (1860–1932), a student of Carl H. Eigenmann, "the author of a very useful key [1895] to the determination of the species" of *Tetragonopterus* (Characidae: Tetragonopterinae, then a catch-all genus)

Hemigrammus unilineatus **(Gill 1858)** *uni-*, from *unus* (L.), one; *lineatus* (L.), lined, allusion not explained, perhaps referring to straight black-and-white line down front edge of anal fins

Hemigrammus vorderwinkleri **Géry 1963** in honor of William Vorderwinkler (1908–1970), publisher (actually, editor) of *Tropical Fish Hobbyist* magazine, in which description (and several others by Géry) appeared

Hemigrammus xaveriellus **Lima, Urbano-Bonilla & Prada-Pedreros 2020** Latinization of *Javiercito* (diminutive of Javier in Spanish), an "affectionate nickname" which the third author used to refer to Javier Alejandro Maldonado-Ocampo (1977–2019), who was killed when crossing a river in a small boat that overturned and was swept downstream, for his "invaluable" contribution to the knowledge and conservation of neotropical fishes and for his "engagement in the public diffusion of its knowledge" (coincidentally, when Javier started as a student in 1994, the third author, then his advisor, proposed that he study some diverse and poorly known characid genera such as *Hemigrammus*)

Pristella

Eigenmann 1908

-ella (L.), a diminutive suffix, and *pristis*, from *prístēs* (πρίστης), one who saws, allusion not explained, perhaps referring to minute conical teeth of *P. riddlei* (=*maxillaris*) scattered along most of maxillary margin

Pristella ariporo **Conde-Saldaña, Albornoz-Garzón, García-Melo, Villa-Navarro, Mirande & Lima 2019** named for Río Ariporo (La Porfía, Maní, Departamento Casanare, Colombia), type locality

Pristella crinogi **Lima, Caires, Conde-Saldaña, Mirande & Carvalho 2021** in honor of Brazilian herpetologist Cristiano de Campos Nogueira ("Crinog"), the authors' "dear friend," for his "enthusiastic" help during 2008 fish survey when this species was discovered

Pristella maxillaris **(Ulrey 1894)** Latin for of or belonging to the jaw, referring to minute conical teeth scattered along "entire" (actually most of) maxillary margin

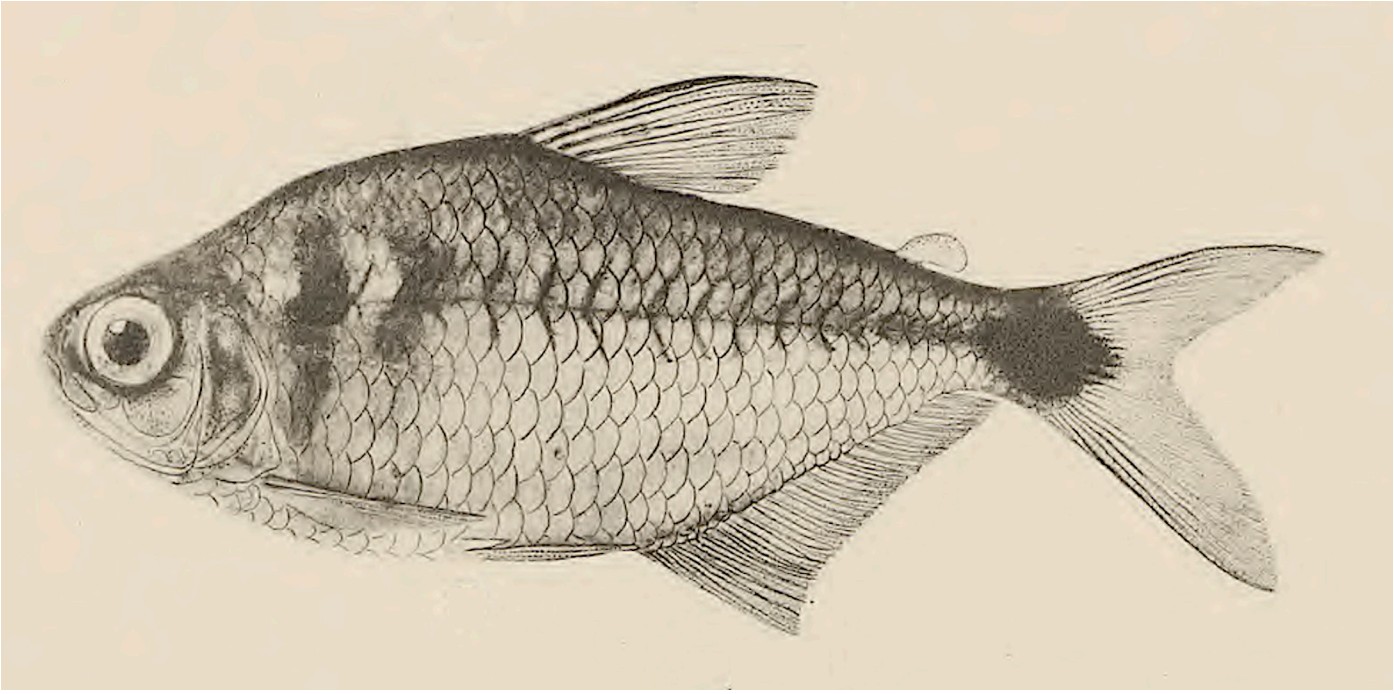
Pristella crinogi, female. Photo by M. Taylor. From: Lima, F. C. T., R. A. Caires, C. C. Conde-Saldaña, J. M. Mirande and F. R. Carvalho. 2021. A new miniature *Pristella* (Actinopterygii: Characiformes: Characidae) with reversed sexual dimorphism from the rio Tocantins and rio São Francisco basins, Brazil. Canadian Journal of Zoology 99 (5): 339–348.

Order CHARACIFORMES

[no common name]

Family **ACESTRORHAMPHIDAE**

Subfamily **JUPIABINAE** Benine & Ota 2024



Probably first-published image of *Jupiaba paranatinga*. From: Eigenmann, C. H. 1927. The American Characidae [Part IV]. Memoirs of the Museum of Comparative Zoology 43 (4): 311– 428, 24 pls.

Jupiaba

Zanata 1997

combination of the Tupí words *ju*, thorn, and *piaba*, small riverine fish, referring to spine-like pelvic bones; *piaba* is also a local Brazilian name for species in the genus

***Jupiaba abramoides* (Eigenmann 1909)** *-oides*, Neo-Latin from *eídos* (εἶδος), having the form of: presumed to be closely allied with *Astyanax abramis* at the time

***Jupiaba acanthogaster* (Eigenmann 1911)** *ákantha* (ἄκανθα), thorn; *gastḗr* (γαστήρ), belly or stomach, referring to strong pelvic bones, "diverging forward, the ends protruding as spines"

***Jupiaba ajuricaba* (Marinho & Lima 2009)** in honor of Ajuricaba, paramount chief of the Manau Indians in the early 18th century, who formerly inhabited the rio Negro area of Brazil, roughly where this species occurs; Ajuricaba unsuccessfully resisted the assaults of Portuguese slavers and averted trial as a rebel by drowning himself in the rio Negro while shackled, an act of bravery that became a symbol of Indian resistance against Portuguese oppression [presumably a noun in apposition, without the genitive "*i*"]

***Jupiaba anterior* (Eigenmann 1908)** Latin for before, referring to anterior position of humeral spot

***Jupiaba anteroides* (Géry 1965)** *-oides*, Neo-Latin from *eídos* (εἶδος), having the form of: similar to *J. anterior*

***Jupiaba apenima* Zanata 1997**combination of the Tupí words *apê*, crooked, and *pinima*, stain or mark, referring to asymmetric spot on caudal peduncle

***Jupiaba asymmetrica* (Eigenmann 1908)** Latin for asymmetrical, referring to triangular, asymmetrically placed caudal spot

***Jupiaba atypindi* Zanata 1997** combination of the Tupí words *atypy*, cheek, and *ndi*, with, referring to bare infraorbital area on face

***Jupiaba citrina* Zanata & Ohara 2009** Latin for lemon-yellow, referring to orange-yellowish coloration in life

***Jupiaba elassonaktis* Pereira & Lucinda 2007** *elásson* (ελάσσων), smaller or less; *aktís* (ἀκτίς), ray, referring to small number of anal-fin rays

***Jupiaba essequibensis* (Eigenmann 1909)** *-ensis*, Latin suffix denoting place: Essequibo River basin, Guyana, where it is endemic

***Jupiaba iasy* Netto-Ferreira, Zanata, Birindelli & Sousa 2009** *îasy*, goddess of the moon in the mythology of the Tupí people of Brazil, referring to its crescent-shaped humeral blotch

***Jupiaba keithi* (Géry, Planquette & Le Bail 1996)** in honor of aquatic biologist Philippe Keith, Muséum national d'Histoire naturelle (Paris), who helped collect holotype

***Jupiaba kurua* Birindelli, Zanata, Sousa & Netto-Ferreira 2009** from the Tupí *kurua*, referring to rio Curuá, rio Xingu basin, Brazil, type locality

***Jupiaba maroniensis* (Géry, Planquette & Le Bail 1996)** *-ensis*, Latin suffix denoting place: Maroni River (at confluence of Latini River), French Guiana, type locality

***Jupiaba meunieri* (Géry, Planquette & Le Bail 1996)** in honor of fish osteologist François Jean Meunier (b. 1942), Muséum national d'Histoire naturelle (Paris), who helped collect holotype

***Jupiaba minor* (Travassos 1964)** Latin for less, referring to its small size, holotype just 20.2 mm SL

***Jupiaba mucronata* (Eigenmann 1909)** Latin for pointed, allusion not explained, perhaps referring to "conspicuous bullet-shaped humeral spot"

***Jupiaba ocellata* (Géry, Planquette & Le Bail 1996)** Latin for having little eyes, referring to eye-like humeral spot, or ocellus

***Jupiaba paranatinga* Netto-Ferreira, Zanata, Birindelli & Sousa 2009** Tupí name meaning "white river," referring to rio Teles Pires, type locality, Mato Grosso, Brazil

***Jupiaba pinnata* (Eigenmann 1909)** Latin for feathered, referring to pinnate (i.e., with branches arranged on both sides of the stem, in pairs opposite each other, like the vanes of feather) black markings on the sides

***Jupiaba pirana* Zanata 1997** combination of the Tupí words *pira*, fish, and *rana*, similar, referring to its resemblance to *J.* (now *Moenkhausia*) *zonata*

***Jupiaba poekotero* Zanata & Lima 2005** common name of this species among the Tuyuka people of Brazil: *poe*, waterfall; *kotero*, warder, referring to it occurrence in pools immediately downstream of waterfalls

***Jupiaba polylepis* (Günther 1864)** *polý-* (πολύ-), many; *lepís* (λεπίς), scale, presumably referring to its having more lateral line scales compared with most other species then placed in the catch-all genus *Tetragonopterus* (Characidae: Tetragonopterinae)

***Jupiaba poranga* Zanata 1997** Tupí word for beautiful, presumably referring to its pale-yellow coloration, two dark spots and dark chromatophores on lips, head, fins and body

***Jupiaba potaroensis* (Eigenmann 1909)** *-ensis*, Latin suffix denoting place: Potaro River basin, Guyana, where it is endemic

***Jupiaba scologaster* (Weitzman & Vari 1986)** *skólops* (σκόλοψ), thorn or pointed object; *gastḗr* (γαστήρ), belly, referring to "exserted spinous pelvic bones" on ventral surface

***Jupiaba yarina* Zanata 1997** combination of *ty*, Tupí word for river, and *Arinos*, referring to rio Arinos, Mato Grosso, Brazil, type locality

Order CHARACIFORMES

[no common name]

Family **ACESTRORHAMPHIDAE**

Subfamily **TYTTOBRYCONINAE** Mattox & Melo 2024

Priocharax nanus. Photo by Ralf Britz. From: Toledo-Piza, M., G. M. T. Mattox and R. Britz. 2014. *Priocharax nanus*, a new miniature characid from the rio Negro, Amazon basin (Ostariophysi: Characiformes), with an updated list of miniature neotropical freshwater fishes. Neotropical Ichthyology 12 (2): 229–246.

Priocharax

Weitzman & Vari 1987

príō (πρίω), to saw, referring to numerous small jaw teeth; *Charax*, typical genus of the Characiformes, from *chárax* (χάραξ), a pointed stake of a palisade, referring to densely packed sharp teeth, a common root-name formation in the order

Priocharax ajuru **Mattox, Pinion & Britz 2026** Tupí word for parrot, referring to the fish's round snout, reminiscent of a parrot beak

Priocharax ariel **Weitzman & Vari 1987** from *aériios* (ἀέριος), aerial, applied by Shakespeare (*The Tempest*) for the name of an airy spirit (its meaning here), referring to this fish's tiny size (up to 15.1 mm SL) and translucent coloration in life

Priocharax britzi **Mattox, de Souza, Toledo-Piza & Oliveira 2021** in honor of Ralf Britz, Natural History Museum (London), "noteworthy ichthyologist and a dear friend" who "mastered the world of small fishes and has described more than 20 miniature species, including two species of *Priocharax*"

Priocharax conwayi **Mattox, Lima, Britz, Souza & Oliveira 2024** in honor of Kevin W. Conway, Texas A&M University (College Station, Texas, USA), "esteemed friend and notable ichthyologist," who has "greatly contributed to our knowledge of miniature fish taxonomy and morphology"

Priocharax marupiara **Mattox, Britz, Souza, Casas, Lima & Oliveira 2023** both a noun and an adjective in the native common language (Nheengatu) meaning luck/lucky in fishing, and in life in general, alluding to the abundance of this species in the type locality and the fact that it was discovered while searching for *P. toledopizae*

Priocharax nanus **Toledo-Piza, Mattox & Britz 2014** Latin for dwarf (noun), referring to its tiny size, referring to tiny size of adults (up to 15.4 mm SL)

Priocharax phasma **Mattox, Lima, Britz, Souza & Oliveira 2024** *phásma* (φάσμα), ghost or specter, referring to its almost completely transparent appearance, resembling a ghost

Priocharax piagassu **Lopez, Souza, Reia, Mantuaneli, Morales, Lima, Oliveira & Mattox 2025** from Nheengatu, an Indigenous language in Amazonas, Brazil, in which *pid* means "heart" and *wa'su* means "big," i.e., the "big heart," the region in the middle of the Amazon basin where the type specimens were collected

Priocharax pygmaeus **Weitzman & Vari 1987** Latin for dwarfish, referring to its tiny size (up to 16.4 mm SL)

Priocharax rex **Mattox, Acosta-Santos, Bogotá-Gregory, Agudelo & Lima 2025** Latin for king, referring to its large size compared with congeners

Priocharax robbiei **Lopez, Souza, Reia, Mantuaneli, Morales, Lima, Oliveira & Mattox 2025** in honor of Roberto "Robbie" Taliaferro Mattox Jr., father of the eighth author, who passed away while his son was in the field collecting the type series

Priocharax toledopizae **Mattox, Britz, Souza, Casas, Lima & Oliveira 2023** in honor of Mônica Toledo-Piza, "dear friend" and ichthyologist; as former advisor of the first and fourth authors, "she has played an important role in our scientific training and shaping our critical thinking," and has contributed to characiform taxonomy and systematics for more than 25 years, including that of *Priocharax*

Priocharax varii **Mattox, Souza, Toledo-Piza, Britz & Oliveira 2020** in honor of the late Richard P. Vari (1949–2016), National Museum of Natural History, Smithsonian Institution (Washington, D.C., USA), "our dear friend and mentor, and one of the most influential researchers in Neotropical ichthyology of the past 40 years"; in addition to being co-author of the genus *Priocharax*, he "continuously encouraged the first author to study this taxon further and in more detail"

Tucanoichthys tucano, adult female in pre-spawning coloration. Photo by Uwe Römer. From: Géry, J. and U. Römer. 1997. *Tucanoichthys tucano* gen. n. sp. n., a new miniature characid fish (Teleostei: Characiformes: Characidae) from the Rio Uaupes basin in Brazil. aqua, Journal of Ichthyology and Aquatic Biology 2 (4): 65–72.

Tucanoichthys

Géry & Römer 1997

Tucano, in honor of the Tucano indigenous people of the upper Rio Negro and Rio Uaupés area of Amazonas, Brazil (where it occurs), "an interesting people" with less than 5000 members surviving and "in great danger, owing to the avidity of so-called 'civilized' men"; *ichthýs* (ἰχθύς), fish

***Tucanoichthys tucano* Géry & Römer 1997** as for genus

Tyttobrycon

Géry 1973

tytthós (τυτθός), small or young, referring to very small size (males fully mature at 14-18 mm) but also suggesting a "possible affinity" with *Tyttocharax* (now in Stevardiinae); *brycon*, generalized term used in generic names of many characiform fishes, derived from *brýchō* (βρύχω), to bite, gnash teeth or eat greedily, originally an allusion to fully toothed maxillae

***Tyttobrycon dorsimaculatus* Géry 1973** *dorsi-*, from *dorsalis* (Neo-Latin), dorsal; *maculatus* (L.), spotted, presumably referring to black band on dorsal fin

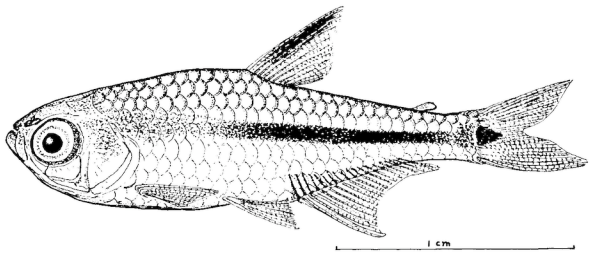
***Tyttobrycon hamatus* Géry 1973** Latin for furnished with a hook, referring to "peculiar sexual hooklets" on anal fin of males

***Tyttobrycon marajoara* Marinho, Bastos & Menezes 2013** adjectival form of Marajó, referring to Marajó Island, Pará State, Brazil, where it is endemic

***Tyttobrycon shibattai* Abrahão, Pastana & Marinho 2019** in honor of Oscar Akio Shibatta, "renowned" icthhyologist from Universidade Estadual de Londrina (Brazil), for his "great" contributions to fish systematics and his support of new generations of ichthyologists, including the senior author (Shibatta was responsible for encouraging his studies of the nervous systems of neotropical fishes)

***Tyttobrycon spinosus* Géry 1973** Latin for thorny, referring to 11–14 prominent interhaemal spines on first caudal-fin ray of males

***Tyttobrycon xeruini* Géry 1973** named for the rio Xeruini system (specifically the Rio Novo), middle rio Negro basin, Brazil, type locality



Tyttobrycon dorsimaculatus, holotype. From: Géry, J. 1973. New and little-known Aphyoditeina (Pisces, Characoidei) from the Amazon Basin. Studies on the Neotropical Fauna 8: 81–137.

Order CHARACIFORMES

Multicusp Characins

Family **ACESTRORHAMPHIDAE**

Subfamily **HYPHESSOBRYCONINAE** Lima, Carvalho & Faria 2024

Erythrocharax altipinnis, paratype, 25.8 mm SL. From: Netto-Ferreira, A. L., J. L. O. Birindelli, L. M. de Sousa, T. C. Mariguela and C. Oliveira. 2013. A new miniature characid (Ostariophysi: Characiformes: Characidae), with phylogenetic position inferred from morphological and molecular data. PLoS ONE 8 (1): 1–7.

Dinotopterygium

Frainer, Carvalho, Bertaco & Malabarba 2021

dinōtós (δινωτός), rounded; *pterygium*, diminutive of *ptéryx* (πτέρυξ), fin, referring to shape of male anal fin, convex in its distal border

***Dinotopterygium diodon* Frainer, Carvalho, Bertaco & Malabarba 2021** *di-*, from *dýo* (δύο), two; *odon*, from *odoús* (ὀδούς), tooth, referring to double series of teeth in the premaxilla

Dinotopterygium diodon, paratype, male, 40.79mm SL. The circular black spot below and behind eye does not represent the general coloration in males. Photo by Fernando Dagosta. From: Frainer, G., F. R. Carvalho, V. A. Bertaco and L. R. Malabarba. 2021. Museum specimens reveal a rare new characid fish genus, helping to refine the interrelationships of the Probolodini (Characidae: Stethaprioninae). Systematics and Biodiversity 19 (8): 1135–1148.

***Dinotopterygium uniodon* Frainer, Carvalho, Bertaco & Malabarba 2021** *uni-*, from *unus* (L.), one; *odon*, Latinized and grammatically adjusted from the Greek nominative ὀδούς (*odoús*), tooth, referring to single series of teeth in the premaxilla

Erythrocharax

Netto-Ferreira, Birindelli, de Sousa, Mariguela & Oliveira 2013

erythrós (ἐρυθρός), red, referring to bright-red coloration of adipose and caudal fin in life; *Charax*, typical genus of the Characiformes, from *chárax* (χάραξ), a pointed stake of a palisade, referring to densely packed sharp teeth, a common root-name formation in the order

***Erythrocharax altipinnis* Netto-Ferreira, Birindelli, de Sousa, Mariguela & Oliveira 2013** *altus* (L.), high; *pinnis*, Neo-Latin adjective of *pinna* (L.), fin, referring to elongate dorsal-fin rays in males

Hyphessobrycon

Durbin 1908

hyphḗssōn (ὑφήσσων), smaller, allusion not explained, probably referring to their size (described at 26–42 mm); *brycon*, generalized term used in generic names of many characiform fishes, derived from *brýchō* (βρύχω), to bite, gnash teeth or eat greedily, originally an allusion to fully toothed maxillae

***Hyphessobrycon acaciae* García-Alzate, Román-Valencia & Prada-Pedreros 2010** of Acacías, a town or municipality in Meta Department, Colombia, type locality

***Hyphessobrycon agulha* Fowler 1913** local name for this species along the Madeira River in Brazil

***Hyphessobrycon albolineatum* Fernández-Yépez 1950** *albus* (L.), white; lineatum, presumably an unnecessary neuterization of *linea* (L.), line, referring to white band around body on specimens preserved in formalin [name treated as a noun, not an adjective]

***Hyphessobrycon amandae* Géry & Uj 1987** in honor of Amanda Bleher (1910–1991), mother of German explorer and ornamental fish wholesaler-supplier Heiko Bleher (1944–2025, who collected holotype), for her interest in and knowledge of the freshwater fauna and flora of Brazil

***Hyphessobrycon amapaensis* Zarske & Géry 1998** *-ensis*, Latin suffix denoting place: Amapa State, Brazil, where it is endemic

***Hyphessobrycon amaronensis* García-Alzate, Román-Valencia & Taphorn 2010** *-ensis*, Latin suffix denoting place: Caño Amaron, tributary of Río Putumayo, Puerto Leguizama municipio, Departmento Amazonia, Colombia, type locality

***Hyphessobrycon arianae* Uj & Géry 1989** in honor of colleague Ariane Devore, for her encouragement during the course of the senior author's research

***Hyphessobrycon atencioi* Ardila Rodríguez 2022** in honor of Colombian ichthyologist Víctor Julio Atencio García, Director, Instituto de Investigaciones Piscícolas, Universidad de Córdoba

Hyphessobrycon auca **Almirón, Casciotta, Bechara & Ruíz Díaz 2004** Mapuche word meaning rebel, possibly alluding to its being only species in genus with some males bearing hooks on all fins (Mapuche are a group of indigenous people in Argentina, where this species occurs)

Hyphessobrycon axelrodi **(Travassos 1959)** in honor of American pet-book publisher and aquarist Herbert R. Axelrod (1927–2017), who collected holotype

Hyphessobrycon barranquilla **Ardila Rodríguez 2022** named for Barranquilla, Colombia, where the author lives, "My second hometown, who welcomed me 44 years ago with her affection and hugged me with her joy" (translation)

Hyphessobrycon bayleyi **Lima, Bastos, Rapp Py-Daniel & Ota 2022** in honor of Peter B. Bayley, a retired ichthyologist who extensively sampled fishes from floodplain lakes in Central Amazon near Manaus in the 1970s; among the material he collected are large series of well-preserved small characins that have "greatly aided" our understanding of the diversity of the group in Central Amazon

Hyphessobrycon bifasciatus **Ellis 1911** *bi-*, from *bis* (L.), twice; *fasciatus* (L.), banded, referring to two vertical black bars just behind head [Ellis is married name of Durbin, who described many small tetras]

Hyphessobrycon borealis **Zarske, Le Bail & Géry 2006** Latin for northern, referring to distribution in northern South America (specifically, in French Guiana)

Hyphessobrycon boulengeri **(Eigenmann 1907)** in honor of Belgian-born British ichthyologist-herpetologist George A. Boulenger (1858–1937), British Museum (Natural History)

Hyphessobrycon brumado **Zanata & Camelier 2010** named for rio Brumado, coastal drainage of eastern Brazil, type locality

Hyphessobrycon bussingi **Ota, Carvalho & Pavanelli 2020** in honor of American ichthyologist William Bussing (1933–2014), Universidad de Costa Rica, for all of his contributions to the knowledge of the fishes of Costa Rica

Hyphessobrycon cachimbensis **Travassos 1964** *-ensis*, Latin suffix denoting place: rio Cachimbo, Serra do Cachimbo, Brazil, type locality

Hyphessobrycon cantoi **Faria, Guimarães, Rodrigues, Oliveira & Lima 2021** in honor of André Luiz C. Canto, curator of the fish collection of the Universidade Federal do Oeste do Pará, for his contribution to the knowledge of fishes from the rio Tapajós basin (Pará, Brazil), where this tetra occurs

Hyphessobrycon caru **Guimarães, Brito, Feitosa, Costa & Ottoni 2019** Carú, name of area (where this species occurs) inhabited by two Brazilian native tribes Guajá and Guajajara) who have "suffered consequences of European colonization and are under threat due to the pressure for exploration of the protected territory"

Hyphessobrycon catableptus **(Durbin 1909)** etymology not explained, perhaps *cata*, from *katá* (κατά), downwards, beneath, below or under, and *bleptós* (βλεπτός), to be seen (i.e., visible or conspicuous), presumably referring in some way to the "peculiarity" of its pectoral fins, described as a "fleshy lobe, surrounded by a fringe of filaments" [*species inquirenda*, known from only a single post-larval specimen, provisionally included here]

Hyphessobrycon chiribiquete **García-Alzate, Lima, Taphorn, Mojica, Urbano-Bonilla & Teixeira 2020** named for Parque Nacional Natural Serranía de Chiribiquete, Colombia (type locality), the largest tropical rainforest national park in the world

Hyphessobrycon citrus **Marinho & Dagosta 2024** Latin for citrus fruit, from the Citron *Citrus medica*, referring to this tetra's bright-yellow coloration, similar to several citrus fruits

Hyphessobrycon clavatus **Zarske 2015** Latin for club-shaped (clavate), referring to its body shape

Hyphessobrycon coelestinus **Myers 1929** Latin for sky-blue, presumably referring to its bluish silvery coloration and/or dark-blue lateral streak

Hyphessobrycon columbianus **Zarske & Géry 2002** *-anus* (L.), belonging to: Colombia, where type locality (Darien) is situated

Hyphessobrycon comodoro **Dagosta, Seren, Ferreira & Marinho 2022** named for the Municipality of Comodoro, Mato Grosso State, Brazil, where all specimens were collected

Hyphessobrycon compressus **(Meek 1904)** Latin for squeezed together, referring to its deep, much compressed body

Hyphessobrycon condotensis **Regan 1913** *-ensis*, Latin suffix denoting place: Río Condoto, Colombia, one of two locations for the type series

Hyphessobrycon corozalensis **Ardila Rodríguez 2022** *-ensis*, Latin suffix denoting place: Arroyo Grande de Corozal drainage, Departamento de Sucre, Colombia, type locality

Hyphessobrycon cyanotaenia **Zarske & Géry 2006** *cyano-*, from *kýanos* (κύανος), dark blue; *taenia*, from *tainía* (ταινία), band or ribbon, referring to broad blue longitudinal band from tip of snout to end of middle caudal-fin rays

Hyphessobrycon daguae **Eigenmann 1922** of Río Dagua, Colombia, co-type locality

Hyphessobrycon delimai **Teixeira, Netto-Ferreira, Birindelli & Sousa 2016** in honor of Brazilian ichthyologist Flávio Cesar Thadeo de Lima (b. 1974), Universidade Estadual de Campinas, for numerous contributions to the knowledge of Neotropical freshwater fishes, especially the Characidae, and also for many years of friendship and encouragement to the authors

Hyphessobrycon diancistrus **Weitzman 1977** *di-* (prefix), from *dýo* (δύο); *ánkistron* (ἄγκιστρον), fish hook, referring to two very large bony hooks on anal fin of males

Hyphessobrycon dorsalis **Zarske 2014** Latin for of the back, referring to black spot on dorsal fin

Hyphessobrycon duragenys **Ellis 1911** *durus* (L.), hard or tough; *génys* (γένυς) jaw (usually the lower jaw in ichthyology), allusion not explained nor evident [Ellis is married name of Durbin, who described many small tetras]

Hyphessobrycon ecuadorensis **(Eigenmann 1915)** *-ensis*, suffix denoting place: Ecuador, where type locality (Maranjito, Río Chan Chan) is situated [described in *Megalamphodus* (Megalamphodinae), narrowly misses being a junior homonym of *H. ecuadoriensis* by the absence of the letter "*i*"]

Hyphessobrycon ecuadoriensis **Eigenmann & Henn 1914** *-ensis*, Latin suffix denoting place: Ecuador, where it is endemic

Hyphessobrycon eilyos **Lima & Moreira 2003** *eilyós* (εἰλεός), den or lurking place, referring to plant-choked backwater habitat (and where, according to locals, anacondas lurk)

Hyphessobrycon elachys **Weitzman 1984** from *élacho* (ἐλαχύς), small or insignificant, referring to small adult size (12.9–16.6 mm SL)

Hyphessobrycon eos **Durbin 1909** after Eos, goddess of morning-glow, referring to its rosy color

Hyphessobrycon ericae **Moreira & Lima 2017** in honor of fellow ichthyologist Érica Pellegrini Caramaschi, for her extensive contributions to the knowledge of neotropical freshwater fish ecology, for presenting the first specimens of this species, and for patiently waiting almost two decades for its description

Hyphessobrycon eschwartzae **García-Alzate, Román-Valencia & Ortega 2013** in honor of New Orleans-based artist (surrealist sculpture) and benefactor Eugenia Schwartz (1951–2015), who financially supported the expedition that collected holotype

Hyphessobrycon flammeus **Myers 1924** Latin for flaming or fiery, referring to "flaming red" coloration in life

Hyphessobrycon frankei **Zarske & Géry 1997** in honor of German

aquarist Hanns-Joachim Franke (1925–1995), who, along with ichthyologist-aquarist Patrick de Rham, first collected this species in 1979

Hyphessobrycon frickei **Guimarães, Brito, Bragança, Katz & Ottoni 2020** in honor of German ichthyologist Ronald Fricke (b. 1959), Curator of Fishes, Staatliches Museum für Naturkunde Stuttgart, for his contributions to ichthyology

Hyphessobrycon georgettae **Géry 1961** matronym not identified; Géry later corrected spelling from *georgetti* to *georgettae* and revealed he named it in honor of his wife Georgette[1] [corrected spelling is retained because it appears to be in prevailing usage]

Hyphessobrycon geryi **Guimarães, Brito, Bragança, Katz & Ottoni 2020** in honor of ichthyologist Jacques Géry (1917–2007), for his contribution to the knowledge of Characiformes

Hyphessobrycon gracilior **Géry 1964** comparative of *gracilis* (L.), thin or slender, allusion not evident, perhaps referring to shorter body depth compared with the sympatric *H. tenuis*

Hyphessobrycon griemi **Hoedeman 1957** in honor of ornamental fish dealer and collector Karl (sometimes spelled Carl) Griem (d. 1954)

Hyphessobrycon hasemani **Fowler 1913** in honor of American zoologist John D. Haseman (1882–1969), field collector for the Carnegie Museum of Natural History, "who has explored much of South America and contributed a number of papers to Brazilian ichthyology"

Hyphessobrycon heliacus **Moreira, Landim & Costa 2002** *hēliakós* (ἡλιακός), of the sun, referring to its bright golden color in life

Hyphessobrycon herbertaxelrodi **Géry 1961** in honor of American petbook publisher and aquarist Herbert R. Axelrod (1927–2017), whose *Tropical Fish Hobbyist* magazine published this description and several others by Géry

Hyphessobrycon heteresthes **(Ulrey 1894)** *héteros* (ἕτερος), different; *esthḗs* (ἐσθής), dress, clothing or raiment, allusion not explained, possibly referring to lack of humeral spot, which distinguishes it from the related *H. eques* [*species inquirenda*, based on juveniles in poor condition, provisionally included here]

Hyphessobrycon heterorhabdus **(Ulrey 1894)** *héteros* (ἕτερος), different; *rhábdos* (ῥάβδος), rod or wand (i.e., streak or stripe), allusion not explained, possibly referring to conspicuous dark lateral band, which readily distinguishes it from *Hemigrammus schmardae*, thought to be its closest relative at the time

Hyphessobrycon hexastichos **Bertaco & Carvalho 2005** *héx* (ἕξ), six; *stíchos* (στίχος), line or row, referring to six conspicuous zigzag longitudinal stripes between longitudinal body rows of scales on large specimens

Hyphessobrycon hildae **Fernández-Yépez 1950** in honor of Fernández-Yépez' wife Hilda, for her constant help with his ichthyological research

Hyphessobrycon igneus **Miquelarena, Menni, López & Casciotta 1980** Latin for fiery, presumably referring to red coloration on dorsal, anal and caudal fins

Hyphessobrycon inconstans **(Eigenmann & Ogle 1907)** Latin for variable or inconsistent, referring to the five known specimens at the time, which "do not have the same generic characters"

Hyphessobrycon isiri **Almirón, Casciotta & Koerber 2006** Latinization of Guaraní word *ysyri*, stream, presumably referring to its occurrence in shallow streams or brooks

Hyphessobrycon itaparicensis **Lima & Costa 2001** *-ensis*, Latin suffix denoting place: ilha de Itaparica (an island), Bahia, Brazil, type locality

Hyphessobrycon jackrobertsi **Zarske 2014** in honor of tropical-fish farmer and dealer Jack Roberts, who was probably the first to import this fish into the aquarium hobby (where it has been known as *H.* "*robertsi*,"

[1] Géry J. 1964. Two new tetras from the Lower Amazon Basin. Tropical Fish Hobbyist 12 (7): 13–60.

Hyphessobrycon klausanni, paratype, 22.4 mm SL. From: García-Alzate, C. A., A. Urbano-Bonilla and D. C. Taphorn. 2017. A new species of *Hyphessobrycon* (Characiformes, Characidae) from the upper Guaviare River, Orinoco River Basin, Colombia. ZooKeys 668: 123–138.

a name anonymously proposed in 1958 but never validly described)

Hyphessobrycon juruna **Faria, Lima & Bastos 2018** named for the Juruna, an indigenous group who historically lived along the middle and lower rio Xingu basin (Pará State, Brazil), where this species occurs; name also honors a member of the Xavante people, Mário Dzururã (1950–2002), better known as Mário Juruna, the first indigenous deputy in Brazilian history

Hyphessobrycon kayabi **Teixeira, Lima & Zuanon 2014** named for the Kayabi, a Tupí-speaking Indian nation, who, "after suffering severe onslaughts from the western/ Brazilian society during the first half of the 20th Century, still survive as a small group in a recently established area at the lower rio Teles Pires [where this species occurs], but mostly as a transplanted population at the Xingu Indigenous Park"

Hyphessobrycon klausanni **García-Alzate, Urbano-Bonilla & Taphorn 2017** named for Klaus and Anni, parents of Klaus-Peter Lang (Oberhausen, Germany), who partially funded the research leading to the discovery of this species, to commemorate Anni's 80th birthday

Hyphessobrycon krenakore **Teixeira, Netto-Ferreira, Birindelli & Sousa 2016** named for the Krenakore Indians, which suffered severe onslaughts by Brazilian society and was reduced to ⅓ of its original population after contact in 1973 when the Cuiabá-Santarém road began to be built across their territory; recently, after much struggle, the Krenakore was the first native nation in Brazil to be given indemnity by the government and regain the right to live in part of their original territory

Hyphessobrycon loretoensis **Ladiges 1938** *-ensis*, Latin suffix denoting place: Loreto, Peru, upper Amazon River, type locality

Hyphessobrycon loweae **Costa & Géry 1994** in honor of British tropical-fish ecologist Rosemary Lowe-McConnell (1921–2014), who collected the first specimens in 1968

Hyphessobrycon lucenorum **Ohara & Lima 2015** *-orum*, commemorative suffix (L.), plural: in honor of Carlos A. S. de Lucena and Zilda M. S. de Lucena, curators and researchers at the Museu de Ciências e Tecnologia – Pontifícia Universidade Católica do Rio Grande do Sul (Porto Alegre, Brazil), for their contributions to the knowledge of the neotropical fishes, especially characins

Hyphessobrycon maculicauda **Ahl 1936** *macula* (L.), spot; *cauda* (L.), tail, referring to large, vertically elliptical spot on caudal peduncle [*species inquirenda*, provisionally included here]

Hyphessobrycon mamuruensis **Faria, Oliveira, Monteiro & Lima 2025** *-ensis*, Latin suffix denoting place: rio Mamuru basin, State of Pará, near the border with Amazonas State, Brazil, type locality

Hyphessobrycon mapinguari **Pastana, Dutra, Ohara, Teixeira & Menezes 2025** named for Mapinguari, a mythical creature in indigenous Brazilian folklore, particularly among tribes of the Amazon rainforest, frequently regarded as a guardian of the forest, ensuring its natural balance and punishing those who damage the ecosystem; the legend of the Mapinguari "can also be interpreted as a cautionary tale about the repercussions of unchecked exploitation of natural resources, highlighting the importance of environmental preservation"

Hyphessobrycon margitae **Zarske 2016** in honor of Zarske's wife, graduate teacher Margit Zarske, "who for many years has endured and supported my passion for ichthyology" (translation) [see also *Moenkhausia margitae*, Stichonodontinae]

Hyphessobrycon mavro **García-Alzate, Román-Valencia & Prada-Pedreros 2010** *mávro* (μαύρο), black, referring to Caño Negro ("Black Pipe") drainage, Puerto Carreño, Colombia, type locality

Hyphessobrycon melanostichos **Carvalho & Bertaco 2006** *mélanos* (μέλανος), genitive of *mélas* (μέλας), black; *stíchos* (στίχος), line or row, referring to black longitudinal stripe on body

Hyphessobrycon melasemeion **Fowler 1945** *mélas* (μέλας), black; *sēmeḗon* (σημεῖον), flag or banner (i.e., dorsal fin), presumably referring to gray-to-black "terminally greater area" of dorsal fin

Hyphessobrycon melazonatus **Durbin 1908** *mélas* (μέλας), black; *zonatus* (L.), banded, allusion not explained nor evident

Hyphessobrycon meridionalis **Ringuelet, Miquelarena & Menni 1978** Latin for southern, probably referring to its being the most southern species in the genus

Hyphessobrycon metae **Eigenmann & Henn 1914** of the Río Meta, Orinoco system, Colombia, type locality

Hyphessobrycon minimus **Durbin 1909** Latin for least, presumably referring to small size (described at 16–21 mm), smaller than *H. minor* described in the same paper

Hyphessobrycon minor **Durbin 1909** Latin for smaller, probably referring to its small size (described at 19–25 mm)

Hyphessobrycon moniliger **Moreira, Lima & Costa 2002** *monile* (L.), necklace; *-iger* (L.), to have or bear, referring to resemblance of modified anal-fin rays of males to a string of beads

Hyphessobrycon montagi **Lima, Coutinho & Wosiacki 2014** in honor of Brazilian zoologist Luciano F. A. Montag (b. 1975), Federal University of Pará, colleague and friend, who collected part of the type series, for his contributions to the knowledge of the fishes from the lower Amazon basin

Hyphessobrycon mutabilis **Costa & Géry 1994** Latin for changeable or mutable, referring to its ability to change colors

Hyphessobrycon myrmex **Pastana, Dagosta & Esguícero 2017** Greek (μύρμηξ) for ant, referring to small size of adult specimens and to type locality, rio Formiga (Mato Grosso, Brazil), which means "Ant River" in Portuguese

Hyphessobrycon natagaima **García-Alzate, Taphorn, Roman-Valencia & Villa-Navarro 2015** named for the Amerindian people of Natagaima County, Tolima, Colombia, where this species occurs; according to legend, a chief named Nataga and a princess named Aima were married to originate the tribe

Hyphessobrycon niger **García-Alzate, Román-Valencia & Prada-Pedreros 2010** Latin for dark or black, referring to conspicuous black spot at base of caudal fin

Hyphessobrycon nigricinctus **Zarske & Géry 2004** *nigri*, from *niger* (L.), dark or black; *cinctus* (L.), girdle, referring to black longitudinal band on sides

Hyphessobrycon notidanos **Carvalho & Bertaco 2006** *nōtidanós* (νωτιδανός), "with pointed dorsal fin" (per the authors and two dictionaries[2]), referring to the elongate dorsal-fin rays of males, perhaps derived from *nōtízō* (νωτίζω), to turn one's back; the provenance of the present definition is obscure but may trace back to Aristotle, who used *nōtidanós* to describe an Egyptian fish that evokes a fanciful combination of a prickly-skinned shark (possibly *Oxynotus centrina*, which has prickly skin and two dorsal fins, each with a large spine) and a *Synodontis* (Mochokidae) catfish,[3] which swims upside-down (turning its back?) and has a sharp (pointed?) dorsal-fin spine

Hyphessobrycon ocasoensis **García-Alzate & Román-Valencia 2008** *-ensis*, Latin suffix denoting place: Montaña el Ocaso, a nature reserve in Quimbaya, Quindio, Colombia, type locality

Hyphessobrycon ocoae **(Fowler 1943)** of the Río Ocoá, south of Villavicencio, Río Meta basin, Colombia, type locality [*H. otrynus* Benine & Lopes 2008 is a junior synonym]

Hyphessobrycon olayai **Ardila Rodríguez 2022** in honor of Colombian ichthyologist Charles William Olaya Nieto, Director, Departamento de Ciencias Acuícolas, Universidad de Córdoba

Hyphessobrycon oritoensis **García-Alzate, Román-Valencia & Taphorn 2008** *-ensis*, Latin suffix denoting place: Orito River, Putumayo drainage, Colombia, type locality

Hyphessobrycon paepkei **Zarske 2014** in honor of Hans-Joachim Paepke (b. 1934), former (1977–1999) curator of ichthyology, Berlin Museum of Natural History, with whom Zarske has shared a "long-standing professional and personal friendship" (translation)

Hyphessobrycon panamensis **Durbin 1908** *-ensis*, Latin suffix denoting place: Panama, where type locality (Río Boqueron, Atlantic Slope) is situated

Hyphessobrycon pando **Hein 2009** named for Departamento Pando, federal state in Bolivia, where type locality (Río Manuripi) is situated

Hyphessobrycon parvellus **Ellis 1911** diminutive of *parvus* (L.), small, i.e., very small, presumably referring to small size (described at 12–20 mm) [Ellis is married name of Durbin, who described many small tetras]

Hyphessobrycon pastanai **Faria, Ohara, Monteiro & Oliveira 2026** in honor of ichthyologist Murilo Nogueira de Lima Pastana, "dear friend" and curator, Museu de Zoologia da Universidade Estadual de São Paulo, for his "important" contributions to the knowledge of fishes from the Apuí region of Amazonas, Brazil, where this species occurs

Hyphessobrycon paucilepis **García-Alzate, Román-Valencia & Taphorn 2008** *paucus* (L.), few; *lepís* (λεπίς), scale, referring to lower lateral and predorsal scale counts compared to Venezuelan congeners

Hyphessobrycon peruvianus **Ladiges 1938** *-anus* (L.), belonging to: Peru, where type locality (between Tabatinga and Iquitos, upper Amazon, Loreto State) is situated

Hyphessobrycon petricolus **Ohara, Lima & Barros 2017** *pétra* (πέτρα), rock or stone; *-colus* (L.), living among, referring to its occurrence in a rocky bottomed stream

Hyphessobrycon peugeoti **Ingenito, Lima & Buckup 2013** in honor of the Peugeot family (best known for their cars), who invented the Peugeot pepper mill mechanism in 1842 and whose manufacturing business led to the establishment of a carbon sink reforestation project in the fazenda São Nicolau, in central Brazil, and eventually to the discovery of this species [preferably spelled *peugeotorum* since name honors more than one person, but ICZN 32.5.1 forbids such a correction]

Hyphessobrycon piabinhas **Fowler 1941** local name for this species in Brazil

Hyphessobrycon pinnistriatus **Carvalho, Cabeceira & Carvalho 2017** *pinna* (L.), fin; *striatus* (L.), grooved or furrowed (i.e., striped), referring to black stripe on anal fin

Hyphessobrycon piorskii **Guimarães, Brito, Feitosa, Carvalho-Costa & Ottoni 2018** in honor of Brazilian ichthyologist Nivaldo Magalhães Piorski, Universidade Federal do Maranhão, for his contributions to the knowledge of fishes of Maranhão State, Brazil, where this species occurs

Hyphessobrycon piranga **Camelier, Dagosta & Marinho 2018** *piranga*,

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[2] Brown's *Composition of Scientific Words* and Jaeger's *Source-book of Biological Names and Terms*.

[3] Aristotle: "There is a certain fish called *Notidanus*, because it swims upon its back (νῶτον); it is a fierce, predaceous or shark-like fish (γαλεός); and because it is armed with a sharp-pointed spine (or spines) it is also called the Prickle-fish (κεντρίνη)." Translation from Thompson (1928, "On Egyptian fish-names used by Greek writers," Journal of Egyptian Archaeology 14 [1/2]: 22–33), who suggests that *Notidanus* refers to *Synodontis batensoda* or *S. schall*. Thompson also translated a passage from the Graeco-Egyptian gourmand Epaenetus (early 1st century BC), as recorded by Athenaeus (170–223 AD): "Aristotle says that Centrina is a sort of shark called (also) Notidanus." Another use of *Notidanus* should be noted but is equally obscure and unhelpful. In 1816, Cuvier, who liked to repurpose Greek fish names, proposed the genus *Notidanus* (now a junior synonym of the sixgill shark genus *Hexanchus*). Cuvier translated *notidanus* as "dos sec" (dry back) without explanation nor evident meaning.

Tupí word meaning red, referring to "remarkably" red coloration of males (yellow in females); also alludes to the genus *Piranga*, Neotropical birds in which males have red coloration and females are yellow (except *P. rubriceps*)

Hyphessobrycon platyodus **Ohara, Abrahão & Espíndola 2017** *platýs* (πλατύς), flat; *odoús* (ὀδούς), tooth, referring to compressed teeth with many cusps, an unusual feature in *Hyphessobrycon*

Hyphessobrycon plumbellus **Dagosta, Ohara & Seren 2026** *-ellus* (L.), diminutive suffix: *plumbeus* (L.), of or pertaining to lead, i.e., lead-colored, referring to its "subtle plumbaceous coloration" and its small body size

Hyphessobrycon poecilioides **Eigenmann 1913** *-oides*, Neo-Latin from *eĩdos* (εἶδος), having the form of: presumably *Poecilia* or Poeciliidae (Cyprinodontiformes), referring to its "Cyprinodontoid" shape

Hyphessobrycon procerus **Mahnert & Géry 1987** Latin for high, long or tall (authors say slender), probably referring to its very slender ("très élancé") maxillary compared to *H. coelestinus*

Hyphessobrycon procyon **Pastana & Ohara 2016** Procyon, brightest star in the Canis Minor constellation, which represents the state of Amazonas (where this species occurs) in the Brazilian national flag

Hyphessobrycon proteus **Eigenmann 1913** Proteus, a sea-god of changeable form, allusion not explained, perhaps referring to its close similarity to *Astyanax ruberrimus*, "from which the preserved specimens with a complete lateral line can only be distinguished with difficulty"

Hyphessobrycon psittacus **Dagosta, Marinho, Camelier & Lima 2016** from *psittakós* (ψιττακός), parrot, referring to type locality, rio Papagaio (Mato Grosso, Brazil), which means "Parrot River" in Portuguese

Hyphessobrycon pulchripinnis **Ahl 1937** *pulchra* (L.), beautiful or lovely; *pinnis*, Neo-Latin adjective of *pinna* (L.), fin, i.e., finned, referring to attractive black-and-yellow dorsal and anal fins

Hyphessobrycon pyrrhonotus **Burgess 1993** *pyrrhós* (πυρρός), flame-colored; *nṓtos* (νῶτος), back, referring to bright-red color on back

Hyphessobrycon pytai **Géry & Mahnert 1993** *pyta'i*, Guaraní for small stone, referring to characteristic shape of second point of humeral spot, located at the 7th longitudinal scale

Hyphessobrycon quibdoensis **Ardila Rodríguez 2022** *-ensis*, Latin suffix denoting place: Municipio de Quibdó, Departamento del Chocó, Colombia, where type locality (Río Cabí, Río Atrato drainage) is situated

Hyphessobrycon reticulatus **Ellis 1911** Latin for net-like or netted, referring to scales "all clearly outlined with brownish," which create a net-like or reticulated pattern [Ellis is married name of Durbin, who described many small tetras]

Hyphessobrycon reyae **Ardila Rodríguez 2022** in honor of the author's grandmother, María Sabas Rey Gómez (1907–2002), who, when he was a child, helped him capture this species and taught him to "appreciate their beauty" (translation)

Hyphessobrycon rheophilus **Ohara, Teixeira, Albornoz-Garzón, Mirande & Lima 2019** *rhéos* (ῥέος), stream, current or rushing stream; *phílos* (φίλος), fond of, referring to its fast-flowing habitat

Hyphessobrycon ribeiroi **Lima, Silva-Oliveira, Oliveira & Faria 2025** in honor of Frank Raynner Ribeiro, Universidade Federal do Oeste do Pará (Brazil), for his contribution to the knowledge of South American catfishes and the fishes of the rio Tapajós basin (where this species occurs)

Hyphessobrycon robustulus **(Cope 1870)** diminutive of *robustus*, Latin for of oak or oaken and, by extension, hard, firm or solid (but often used by ichthyologists to mean fat or stout), perhaps referring to five "stout but small teeth on the maxillary bone" [*species inquirenda*, provisionally included here]

Hyphessobrycon roseus **(Géry 1960)** Latin for rose-colored, referring to its "bright rose" body coloration

Hyphessobrycon rutiliflavidus **Carvalho, Langeani, Miyazawa & Troy 2008** *rutilus* (L.), red, golden red or reddish yellow; *flavidus* (L.), golden yellow or yellowish, referring to *in vivo* coloration of fins, respectively, in males and females

Hyphessobrycon saizi **Géry 1964** in honor of Emilio Saiz (no other information available), who collected holotype

Hyphessobrycon sateremawe **Faria, Bastos, Zuanon & Lima 2020** named for the Sateré-Mawé, an indigenous group who lived in the region of Amazonas, Brazil, where this species occurs, until they decimated by loyalist forces of the Brazilian empire (1835-1839); they discovered and started using the guaraná (*Paullinia cupana*), and are renowned for the Tocandira ant ritual, a rite of passage wherein boys insert their hands in gloves affixed with living (and venemous) tocandira ants (*Paraponera clavata*)

Hyphessobrycon savagei **Bussing 1967** in honor of American herpetologist Jay M. Savage (b. 1928), University of Southern California, who first aroused Bussing's interest in the country of Costa Rica and encouraged and advised him in his ichthyological studies

Hyphessobrycon schauenseei **Fowler 1926** in honor of Italian-born American ornithologist Rudolf M. de Schauensee (1901–1984), who collected holotype

Hyphessobrycon scholzei **Ahl 1937** in honor of Arthur Scholze (1881–1956), co-owner of Scholze & Pötzschke, an aquarium supply and tropical fish importation firm in Berlin, who donated specimens to the Zoological Museum of Berlin, including type of this species [see also *Astyanax poetzschkei*, Acestrorhamphinae]

Hyphessobrycon scutulatus **Lucena 2003** Latin for diamond- or lozenge-shaped, referring to marks formed by dark lines that border scales on dorsal portion of body

Hyphessobrycon simulatus **(Géry 1960)** Latin for copied or imitated, described as a possible mimic of the sympatric *Pristella riddlei* (=*maxillaris*) and an unidentified *Hyphessobrycon* (cf. *minor*)

Hyphessobrycon sovichthys **Schultz 1944** named for Standard Oil Co. of Venezuela (SOV), which aided Schultz in his 1942 fish collecting trip; *ichthýs* (ἰχθύς), fish

Hyphessobrycon stegemanni **Géry 1961** in honor of German baker and aquarist Carlos Stegemann of São Paulo, Brazil, "close friend" of Harald Schultz (1909–1966), Brazilian ethnographer and fish collector, who collected holotype

Hyphessobrycon stramineus **Durbin 1918** Latin for straw-like, presumably referring to its coloration (described as "badly faded")

Hyphessobrycon taguae **García-Alzate, Román-Valencia & Taphorn 2010** of La Tagua Creek, Puerto Leguizamo, Putumayo, Colombia, type locality

Hyphessobrycon takasei **Géry 1964** in honor of Japanese-born Brazilian tropical-fish retailer and aquarist Roberto Takase, "one of the fish-collection pioneers in the Brazilian Amazon," who collected holotype

Hyphessobrycon taphorni **García-Alzate, Román-Valencia & Ortega 2013** in honor of colleague Donald C. Taphorn (b. 1951), American ichthyologist, for his "great contribution to the study and appreciation of the diversity of neotropical fishes" (translation)

Hyphessobrycon taurocephalus **Ellis 1911** bull-headed, from *tauros* (ταῦρος), bull, and *kephalḗ* (κεφαλή), head, allusion not explained, perhaps referring to "*snout very short*" (italics in original) [Ellis is married name of Durbin, who described many small tetras]

Hyphessobrycon tenuis **Géry 1964** Latin for thin or slender, referring to its slender, elongate body and/or narrow caudal peduncle

Hyphessobrycon tortuguerae **Böhlke 1958** of Tortuguero River (Lagoon), Tortuguero, Costa Rica, type locality

Hyphessobrycon troemneri **(Fowler 1942)** in honor of J. Louis Troemner, who provided holotype (an aquarium specimen), and to whom Fowler is "indebted" for other "rare and valued" fishes

***Hyphessobrycon tropis* Géry 1963** *trópis* (τρόπις), keel, referring to "rather strongly keeled" body above the anal fin

***Hyphessobrycon tukunai* Géry 1965** of the Tukuna, indigenous tribe of the upper Solimões River basin, Brazil; holotype collected by Brazilian ethnographer and fish collector Harald Schultz (1909–1966), who studied the Tukuna

***Hyphessobrycon tuyensis* García-Alzate, Román-Valencia & Taphorn 2008** *-ensis*, Latin suffix denoting place: Tuy River drainage, northern Venezuela, type locality

***Hyphessobrycon vanzolinii* Lima & Flausino 2016** in honor of Paulo E. Vanzolini (1924–2013), "renowned" Brazilian herpetologist and former director of the Museu de Zoologia da Universidade de São Paulo, who conceived and coordinated the Expedição Permanente da Amazônia and directed the fish sampling during some of the expeditions, including travel to the rio Tapajós in 1970, resulting in collection of type series of this species

***Hyphessobrycon veredus* Teixeira, Dutra, Penido, Santos & Pessali 2019** *veredus*, late Latin for a post horse that carried messengers who delivered messages and warnings (or mail as it is known today); in Brazil, roads, paths and shortcuts were then named *vereda* after the horses that ran through them, in this case alluding to the path-like water courses formed during the dry season in the Brazilian savannah where this species occurs

***Hyphessobrycon vilmae* Géry 1966** in honor of Vilma Schultz, wife of Harald Schultz (1909–1966), Brazilian ethnographer and fish collector who collected holotype

***Hyphessobrycon vinaceus* Bertaco, Malabarba & Dergam 2007** Latin for of wine or of the grape (i.e., reddish), referring to red or reddish body coloration in life

***Hyphessobrycon wadai* Marinho, Dagosta, Camelier & Oyakawa 2016** in honor of Luiz Wada, ornamental-fish breeder and "enthusiastic" aquarist, for his "help in many scientific researches with fishes" (for this species he provided live specimens to be photographed and information on sexual dimorphism)

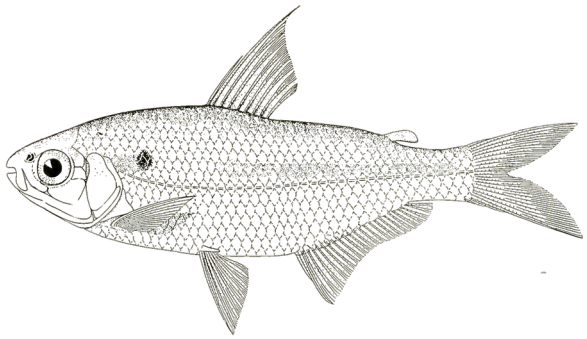
***Hyphessobrycon wajat* Almirón & Casciotta 1999** *waját*, Mataco-Mataguayo word for fish; the Matacos is one of the main ethnic groups in northeast Argentina where some specimens were collected

***Hyphessobrycon weitzmanorum* Lima & Moreira 2003** *-orum*, commemorative suffix (L.), plural: in honor of Stanley H. (1927–2017) and his wife Marilyn Weitzman (1926–2022), National Museum of Natural History, Smithsonian Institution (Washington, D.C.), for their "life-long interest and extensive contributions" to the knowledge of Neotropical freshwater fishes

***Hyphessobrycon werneri* Géry & Uj 1987** in honor of Arthur Werner, German aquarium-fish exporter (Transfish), who helped collect holotype

***Hyphessobrycon wosiackii* Moreira & Lima 2017** in honor of friend and fellow Brazilian ichthyologist Wolmar Benjamim Wosiacki, fish curator from the Museu Paraense Emílio Goeldi, for his important contributions to the knowledge of Brazilian fishes

***Hyphessobrycon zoe* Faria, Lima & Wosiacki 2020** named for the Zo'é, a Tupí-speaking people living at the rio Cuminapanema, a tributary of rio Curuá (Pará State, Brazil), very close to where this species occurs; the Zo'é were discovered by western society during the 1970s and contacted during the 1980s, and is one of the few indigenous peoples in South America who have retained much of their traditional culture



First-published image of *Parecbasis cyclolepis*. From: Eigenmann, C. H. 1915. The Cheirodontinae, a subfamily of minute characid fishes of South America. Memoirs of the Carnegie Museum 7 (1): 1–99, Pls. 1–17.

Parecbasis

Eigenmann 1914

parékbasis (παρέκβασις), a digression, or per Eigenmann (1915),[4] "a going out aside from," allusion not explained nor evident, perhaps referring to raised sides of mandible

***Parecbasis cyclolepis* Eigenmann 1914** *cyclo-*, from *kýklos* (κύκλος), ring or circle; *lepís* (λεπίς), scale, referring to "many radial striæ" on scales

Phycocharax

Ohara, Mirande & Lima 2017

phýkos (φῦκος), seaweed (here meaning algae), referring to the main item of its diet; *Charax*, typical genus of the Characiformes, from *chárax* (χάραξ), a pointed stake of a palisade, referring to densely packed sharp teeth, a common root-name formation in the order

***Phycocharax rasbora* Ohara, Mirande & Lima 2017** from the Bengali word *rasbora*, a common name used for a variety of small cypriniform fishes from southeastern Asia, including species in the genus *Trigonostigma*, which possess a dark triangular blotch on sides very reminiscent in shape and position as found in this species

Phycocharax rasbora, paratype, male, 29.1 mm SL. From: Ohara, W. M., J. M. Mirande and F. C. T. Lima. 2017. *Phycocharax rasbora*, a new genus and species of Brazilian tetra (Characiformes: Characidae) from Serra do Cachimbo, rio Tapajós basin. PLoS ONE 12 (2): e0170648: 1–15.

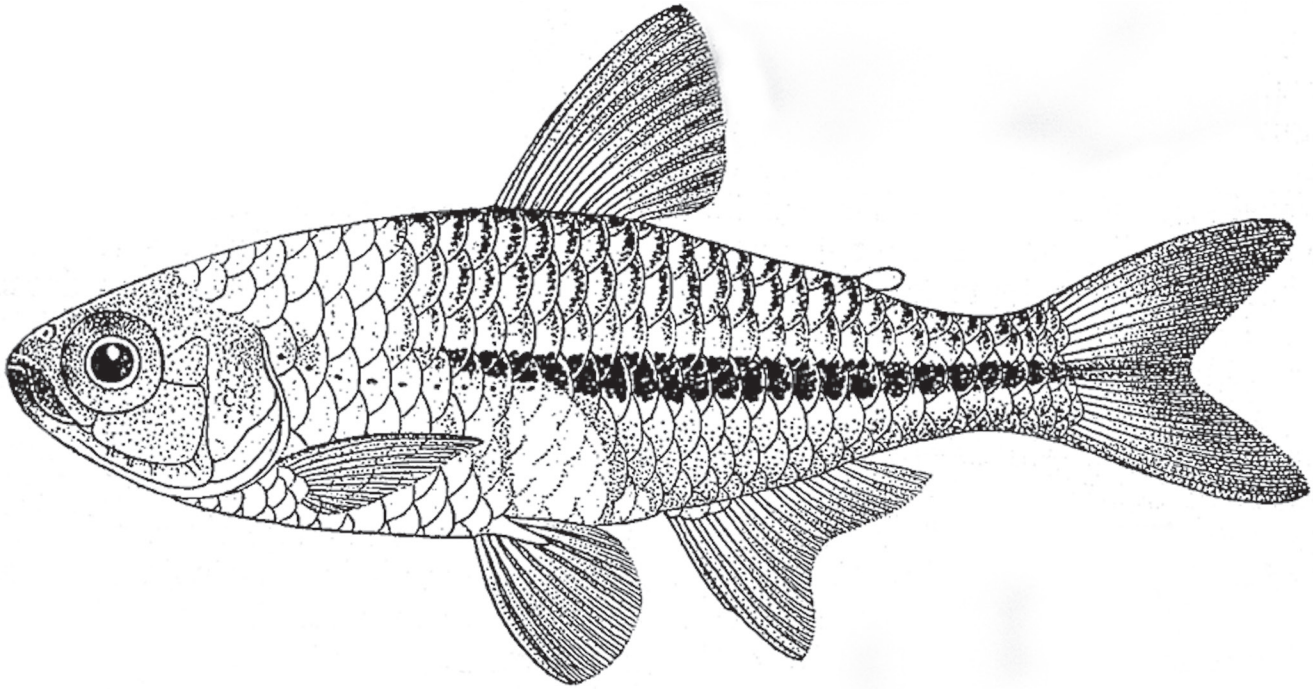
[4] Eigenmann, C. H. 1915. The Cheirodontinae, a subfamily of minute characid fishes of South America. Memoirs of the Carnegie Museum 7 (1): 1–99, Pls. 1–17.

Order CHARACIFORMES

[no common name]

Family **ACESTRORHAMPHIDAE**

Subfamily **THAYERIINAE** Ota, Reia & Benine 2024



Bryconella pallidifrons. Illustration by Henry Weed Fowler. From: Fowler, H. W. 1946. Description of a new South American characin (*Cheirodon pallidifrons* new species). The Fish Culturist 26 (1): 1–2.

Bario

Myers 1940

replacement name for *Entomolepis* Eigenmann 1918,
preoccupied by *Entomolepis* Bradley 1899 in Crustacea;
"a coined name without significance"

***Bario australis* (Eigenmann 1908)** southern, described as one of the few species in the genus that occurs south of the Amazon

***Bario cosmops* (Lima, Britski & Machado 2007)** *cosmo*, from *kósmos* (κόσμος), ornament; *ṓps* (ὦψ), face or appearance, referring to red upper lip on living specimens

***Bario diktyota* (Lima & Toledo-Piza 2001)** adjectivally transformed and Latinized from *díktyon* (δίκτυον), fishnet, i.e., reticulated, referring to color pattern formed by dark pigmentation along posterior portion of scales

***Bario forestii* (Benine, Mariguela & Oliveira 2009)** in honor of Fausto Foresti, Brazilian geneticist and ichthyologist (Universidade Estadual Paulista "Júlio de Mesquita Filho"), for his contributions to our knowledge of fish genetics

***Bario lineomaculatus* (Dagosta, Marinho & Benine 2015)** *lineo*, from *linea* (L.), line; *maculatus* (L.), spotted, referring to longitudinal series of aligned spots characteristic of this species

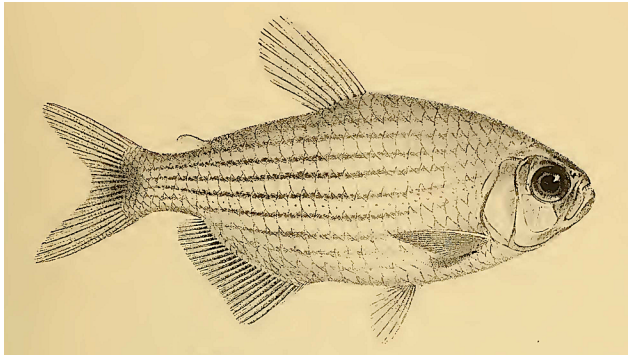
***Bario oligolepis* (Günther 1864)** *olígos* (ὀλίγος), few or scanty; *lepís* (λεπίς), scale, presumably referring to its having fewer lateral line scales compared with other species then placed in the catch-all genus *Tetragonopterus* (Characidae: Tetragonopterinae)

***Bario sanctaefilomenae* (Steindachner 1907)** of Santa Filomena on rio Parnahyba, Brazil, type locality

***Bario skolioplatus* (Bertaco & Carvalho 2005)** *skoliós* (σκολιός), curved or bent; *platus*, from *platýs* (πλατύς), broad stripe or border, referring to curved lateral stripe along body

***Bario steindachneri* (Eigenmann 1893)** in honor of Austrian ichthyologist Franz Steindachner (1834–1919), who described this species in 1891 but used a preoccupied name

***Bario uirapuru* (Ohara & Lima 2015)** named for the cascata (waterfall) Uirapuru, rio Madeira basin, Mato Grosso, Brazil, type locality



First-published image of *Bario steindachneri*, then known as *Tetragonopterus lineatus*, now an objectively invalid name. Illustration by Eduard Konopicky. From: Steindachner, F. 1891. Ichthyologische Beiträge (XV). I. Über einige seltene und neue Fischarten aus dem canarischen Archipel. II. Über einige Characinen-Arten aus Südamerika. III. *Pomacentrus grandidieri*, n. sp. Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe 100 (1. Abth.) (5): 343–374, Pls. 1–3.

Bryconella

Géry 1965

etymology not explained, probably *-ella*, a Latin diminutive, i.e., a small *Brycon*, and/or a combination name referring to presumed affinities to *Bryconamericus* and *Pristella*-like genera

***Bryconella pallidifrons* (Fowler 1946)** *pallidus* (L.), pale; *frons* (L.), forehead, brow or front, referring to front half of back and body much paler and well contrasted with rest of fish

Hollandichthys

Eigenmann 1910

in honor of Jamaican-born American zoologist-paleontologist William J. Holland (1848–1932), Director of the Carnegie Museum (which published many of Eigenmann's papers on characids); *ichthýs* (ἰχθύς), fish

***Hollandichthys multifasciatus* (Eigenmann & Norris 1900)** *multi-* (L.), many; *fasciatus* (L.), banded, referring to 8–9 dark brown longitudinal bands between rows of scales

***Hollandichthys taramandahy* Bertaca & Malabarba 2013** named for the rio Tramandaí (also spelled Taramandahy) system, Santa Catarina, Brazil, type locality (*tramandaí* is a Tupí-Guaraní word that means "winding river")

Hollandichthys taramandahy, paratype, female, 71.9 mm SL.. From: Bertaco, V. A. and L. R. Malabarba. 2013. A new species of the characid genus Hollandichthys Eigenmann from coastal rivers of southern Brazil (Teleostei: Characiformes) with a discussion on the diagnosis of the genus. Neotropical Ichthyology 11 (4): 767–778.

Holopristis

Eigenmann 1903

hólos (ὅλος), whole or entire; *pristis*, from *prístēs* (πρίστης), sawyer (one who saws), probably referring to maxillary of *H. ocellifera*, with "teeth along its entire edge"

***Holopristis aguaruna* (Lima, Correa & Ota 2016)** named for the Awajun people, better known by the name Aguaruna, the second-largest native population in the Peruvian Amazon, who occupy a portion of the Río Morona basin (Departamento Loreto, Peru), where most of the known localities occur

***Holopristis falsa* (Meinken 1958)** Latin for false, reflecting vernacular name among German aquarists, *Falscher Schlusslichtsalmler* (False Tail-light), which alluded to its treatment as a variety of *H. ocellifera*, the original Head-and-Tail Light Tetra

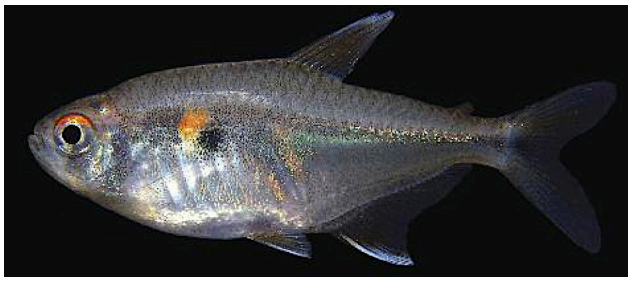
***Holopristis guyanensis* (Géry 1959)** *-ensis*, Latin suffix denoting place: French Guiana, where type locality (Sable creek, tributary to upper Mana) is situated

***Holopristis haraldi* (Géry 1961)** in honor of Brazilian ethnographer and fish collector Harald Schultz (1909–1966), who collected holotype

***Holopristis luelingi* (Géry 1964)** in honor of German ichthyologist Karl Heinz Lüling (1913–1984), Forschungsmuseum Alexander Koenig (Bonn), who collected holotype

***Holopristis neptunus* (Zarske & Géry 2002)** Latin for Neptune, Roman god of the sea, who is usually depicted with a trident, referring to trident-like spot on caudal fin

***Holopristis ocellifera* (Steindachner 1882)** *ocellus*, diminutive of *oculus* (L.), eye (but here meaning eyespot); *-fera*, from *fero* (L.), to carry or bear, presumably referring to eye-like spot at base of caudal fin



Holopristis yinyang, holotype, 29.2 mm SL. Photo by Leandro M. Sousa. From: Lima, F. C. T. and L. M. Sousa. 2009. A new species of *Hemigrammus* from the upper rio Negro basin, Brazil, with comments on the presence and arrangement of anal-fin hooks in *Hemigrammus* and related genera (Ostariophysi: Characiformes: Characidae). aqua, International Journal of Ichthyology 15 (3): 153–168.

***Holopristis pulchra* (Ladiges 1938)** Latin for beautiful, described as "magnificently colored" (translation) in life

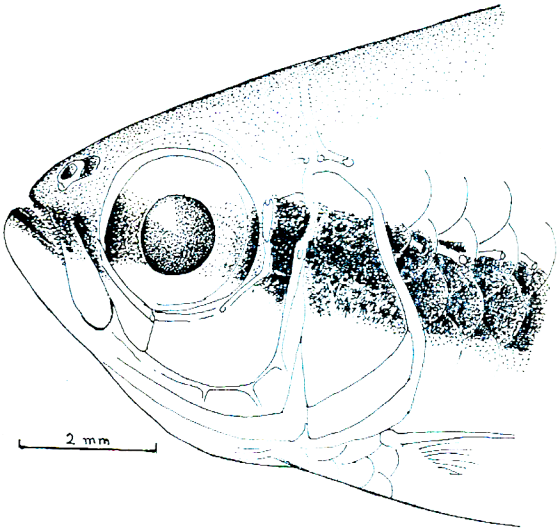
***Holopristis yinyang* (Lima & Sousa 2009)** named for *yin* and *yang*, from the ancient Taoistic Chinese philosophical and religious concept describing the two primal opposing but complementary forces found in all non-static objects and processes, referring to its "complementary orange and black humeral blotches, which are reminiscent of the Taiji diagram, the pictorial representation of the state of the undifferentiated absolute"

Inpaichthys

Géry & Junk 1977

INPA, acronym for Instituto Nacional de Pesquisas da Amazônia, whose field station in Núcleo Aripuanã, Mato Grosso, Brazil, is near the type locality; *ichthýs* (ἰχθύς), fish

***Inpaichthys kerri* Géry & Junk 1977** in honor of Warwick Estevam Kerr (1922–2018), Brazilian agricultural engineer, geneticist, entomologist, and director of INPA (see genus)

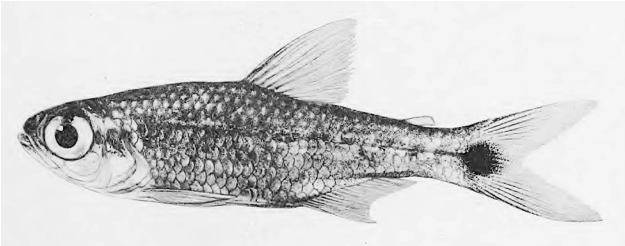


Inpaichthys kerri, detail of head. From: Géry, J. and W. J. Junk. 1977. *Inpaichthys kerri* n. g. n. sp., um novo peixe caracídeo do alto rio Aripuanã, Mato Grosso, Brasil. Acta Amazonica 7 (3): 417–422 + foldout table.

***Inpaichthys luizae* Dagosta 2025** in honor of the author's daughter, Luíza

***Inpaichthys nambiquara* (Bertaco & Malabarba 2007)** named for the Nambiquara, indigenous people of the upper rio Tapajós drainage, Mato Grosso, Brazil, near type locality

***Inpaichthys parauapiranga* Ferreira, Ribeiro, Lima, Silva, Ferreira & Mirande 2024** from the Tupi *paraua*, blotch, and piranga, red, referring to six red-dotted longitudinal stripes on flanks of living specimens



Probably first-published image of *Parapristella aubynei*. From: Eigenmann, C. H. 1927. The American Characidae [Part IV]. Memoirs of the Museum of Comparative Zoology 43 (4): 311–428, 24 pls.

Parapristella

Géry 1964

para- (παρά), near, similar to *Pristella*

***Parapristella aubynei* (Eigenmann 1909)** in honor of William Saint Aubyne (1855–1914), who ran a sugar estate in Guiana; he hosted Eigenmann and "did everything in his power to further the interests" of Eigenmann's expedition

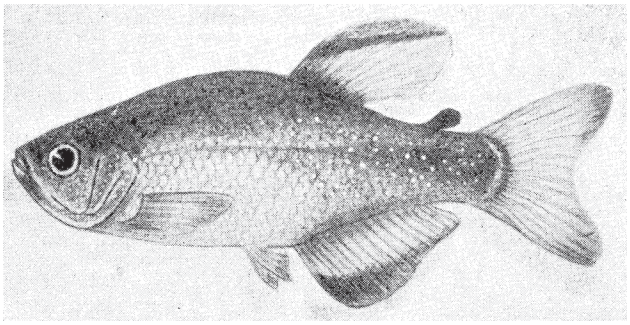
***Parapristella georgiae* Géry 1964** in honor of Géry's wife, Georgie, or Georgette

Rachoviscus

Myers 1926

-iscus (L.), a diminutive: in honor of German aquarist Arthur Rachow (1884–1960), who provided type specimens

***Rachoviscus crassiceps* Myers 1926** *crassus* (L.), thick, fat or stout; *-ceps* (Neo-Latin), headed, referring to "very strongly developed [body], especially the head" (translation)



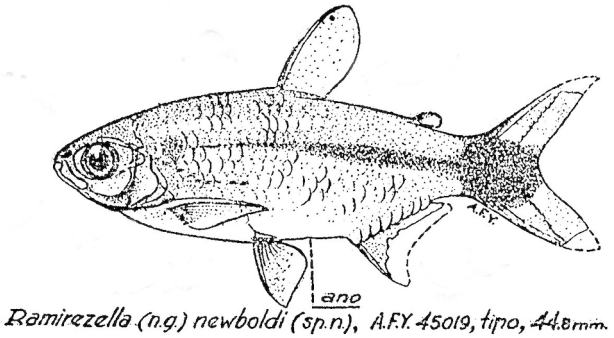
Rachoviscus crassiceps, male. Illustration by F. Mayer. From: Myers, G. S. 1926 Eine neue Characinidengattung der Unterfamilie Cheirodontinae aus Rio de Janeiro, Brasilien. Blätter für Aquarien- und Terrarienkunde 37 (24): 566–567.

***Rachoviscus graciliceps* Weitzman & Cruz 1981** *gracilis* (L.), thin or slender; *-ceps* (Neo-Latin), headed, referring to more slender head compared to *R. crassiceps*

Ramirezella

Fernández-Yépez 1949

-ella (L.), diminutive suffix connoting endearment: in honor of Manuel Vicente Ramirez, who collected holotype of *R. newboldi* and "kindly" (translation) donated it to Fernández-Yépez



Ramirezella newboldi, holotype, 48.4 mm SL. Illustration by Augustin Antonio Fernández-Yépez. From: Fernández-Yépez, A. 1949. *Ramirezella newboldi* nuevo género y especie de pez Tetragonopteridae colectado en Venezuela. Evencias No. 6: 3 unnumbered pp.

***Ramirezella newboldi* Fernández-Yépez 1949** in memory of Philip Newbold, a friend who died while working on experiments on Lake Maracaibo, Venezuela, in 1948

***Ramirezella pyrophthalma* (Costa 1994)** fire-eyed, from *pýr* (πῦρ), fire, and *ophthalmós* (ὀφθαλμός), eye, referring to its "remarkable" deep-red eyes in life

Thayeria

Eigenmann 1908

-ia, belonging to: financier and philanthropist Nathaniel Thayer, Jr. (1808–1883), who sponsored 15-month expedition to Brazil (1865–1866), and "through whose liberality most of the species described [in Eigenmann's] paper were collected"

***Thayeria boehlkei* Weitzman 1957** in honor of American ichthyologist James E. Böhlke (1930–1982), Academy of Natural Sciences of Philadelphia, for his special interest in and contributions to the study of South American characids

***Thayeria ifati* Géry 1959** in honor of the French Institute of Tropical America (I.F.A.T.), Cayenne, for their help in collecting the freshwater fishes of French Guiana

***Thayeria obliqua* Eigenmann 1908** Latin for oblique, referring to oblique downward turn of black line on sides continuing through caudal fin

***Thayeria tapajonica* Moreira & Lima 2017** *-ica* (L.), belonging to: rio Tapajós mainstream, Pará, Brazil, where this species is "essentially restricted"

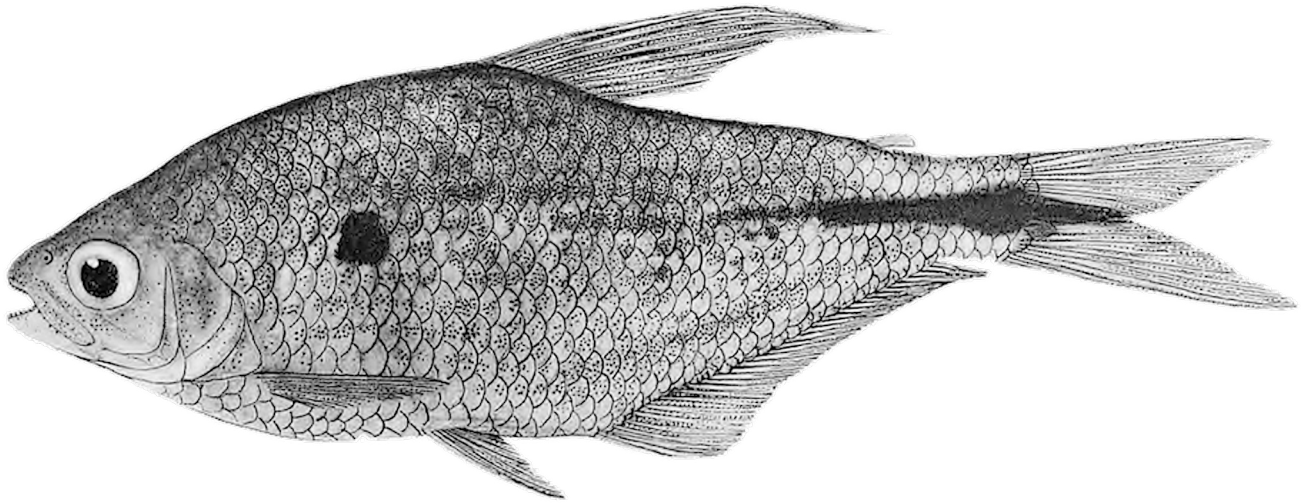
Thayeria boehlkei, holotype (in life). Photo by Stanley H. Weitzman. From: Weitzman, S. H. 1957. A new species of characid fish, blackline - *Thayeria*. Aquarium Journal 28 (11): 390–392.

Order CHARACIFORMES

Pacific Characins

Family **ACESTRORHAMPHIDAE**

Subfamily **RHOADSIINAE** Fowler 1911



Probably first-published image of *Carlana eigenmanni.* From: Eigenmann, C. H. 1927. The American Characidae [Part IV]. Memoirs of the Museum of Comparative Zoology 43 (4): 311–428, 24 pls.

Carlana

Strand 1928

-ana (L.), belonging to: German-born American ichthyologist Carl H. Eigenmann (1863–1927), who suggested that type species warranted a new genus [replacement name for *Carlia* Meek 1914, preoccupied by *Carlia* Gray 1845 in Reptilia]

***Carlana eigenmanni* (Meek 1912)** in honor of German-born American ichthyologist Carl H. Eigenmann (1863–1927), "who has done more than any one else to increase our knowledge of the Characins, the most interesting family of fishes in the fresh waters of the Americas" [note how full name mirrors Eigenmann's own]

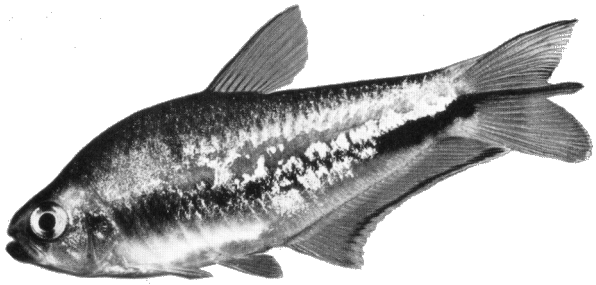
Nematobrycon

Eigenmann 1911

nḗmatos (Gνήματος), threaded, referring to three prolonged, filiform lobes of caudal fin; *brycon*, generalized term used in generic names of many characiform fishes, derived from *brýchō* (βρύχω), to bite, gnash teeth or eat greedily, originally an allusion to fully toothed maxillae

***Nematobrycon lacortei* Weitzman & Fink 1971** in honor of American aquarist Rosario La Corte (1929–2024), for his "long interest in characoids" (he also donated specimens to the senior author from his fish-breeding operation)

***Nematobrycon palmeri* Eigenmann 1911** in honor of Mervyn George Palmer (1882–1954), English naturalist, traveler and collector in Central and South America for the British Museum, who collected holotype



Nematobrycon lacortei. From: Weitzman, S. H. and W. L. Fink. 1971. A new species of characid fish of the genus *Nematobrycon* from the Rio Calima of Colombia (Pisces, Characoidei, Characidae). Beaufortia 19 (248): 57–77.

Parastremma

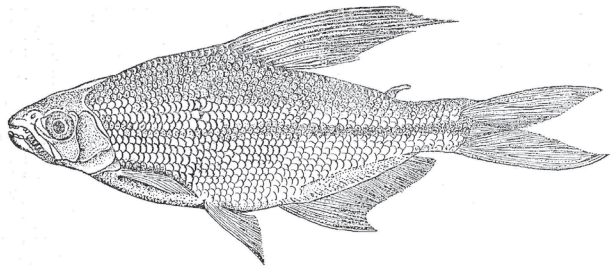
Eigenmann 1912

parástremma (παράστρεμμα), distortion, or per Eigenmann and Myers (1929),[1] "something twisted," referring to "twisted lower jaw," i.e., recurved posterior teeth on sides of lower jaw of *P. sadina*

***Parastremma album* Dahl 1960** Latin for white, referring to whitish sheen when taken out of the water; also called *blanca* by native fishers

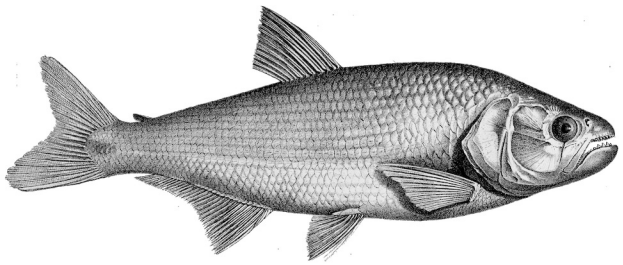
***Parastremma pulchrum* Dahl 1960** Latin for beautiful or lovely, referring to its "elegant form" [originally spelled *pulchra*, emended to agree with neuter gender of genus]

***Parastremma sadina* Eigenmann 1912** local name for this species in western Colombia



Parastremma pulchrum, holotype, 100 mm SL. Illustration by Octavio Bernal. From: Dahl, G. 1960. New fresh-water fishes from western Colombia. Caldasia 8 (39): 451–484.

[1] Eigenmann, C. H. and G. S. Myers. 1929. The American Characidae [Part V + Supplement]. Memoirs of the Museum of Comparative Zoology 43 (5): 429–558, Pls. 57, 63, 70–74, 81–83, 94.



First-published image of *Pseudochalceus lineatus.* From: Kner, R. and F. Steindachner. 1864. Neue Gattungen und Arten von Fischen aus Central-Amerika; gesammelt von Prof. Moritz Wagner. Abhandlungen der Bayerischen Akademie der Wissenschaften, Mathematisch-Physikalische Classe, München 10 (1 abth.): 1–61, Pls. 1–6.

Pseudochalceus

Kner 1863

pseudo-, from *pseúdēs* (ψεύδης), false, referring (according to a subsequent 1864 publication with Steindachner[2]) to its similar dentition with *Chalceus*

Pseudochalceus bohlkei **Orcés V. 1967** in honor of James E. Böhlke (1930–1982), Academy of Natural Sciences of Philadelphia, for distinguished contributions to the advancement of ichthyology

Pseudochalceus kyburzi **Schultz 1966** in honor of the late William A. Kyburz (1900–1965), an ornamental fish exporter in Bitaco, Colombia, who helped collect holotype and supplied habitat information

Pseudochalceus lineatus **Kner 1863** Latin for lined, referring to series of dark longitudinal stripes running along length of body

Pseudochalceus longianalis **Géry 1972** *longus* (L.), long; *analis* (L.), anal, referring to longer anal fin compared with *P. lineatus* and *P. kyburzi*

[2] Kner, R. and F. Steindachner. 1864. Neue Gattungen und Arten von Fischen aus Central-Amerika; gesammelt von Prof. Moritz Wagner. Abhandlungen der Bayerischen Akademie der Wissenschaften, Mathematisch-Physikalische Classe, München 10 (1): 1–61, Pls. 1–6.

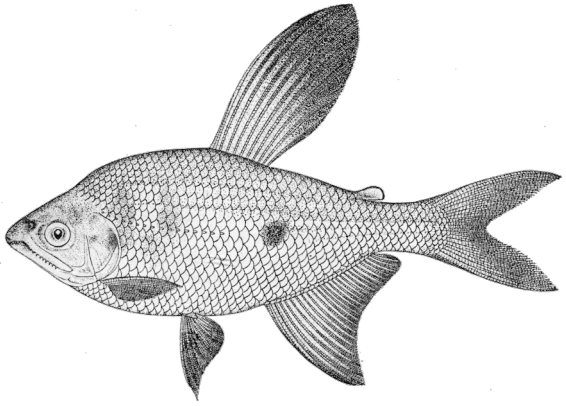
Rhoadsia

Fowler 1911

-ia (L. suffix), belonging to: Philadelphia bookstore owner and naturalist Samuel N. Rhoads (1862–1952), who collected holotype, "in slight recognition of his ability as a naturalist and explorer"

Rhoadsia altipinna **Fowler 1911** *altus* (L.), high; *pinna* (L.), fin, referring to elevated dorsal fin of adult

Rhoadsia minor **Eigenmann & Henn 1914** Latin for small, a "dwarf mountain form" (elevation 1219 m) of *R. altipinna*



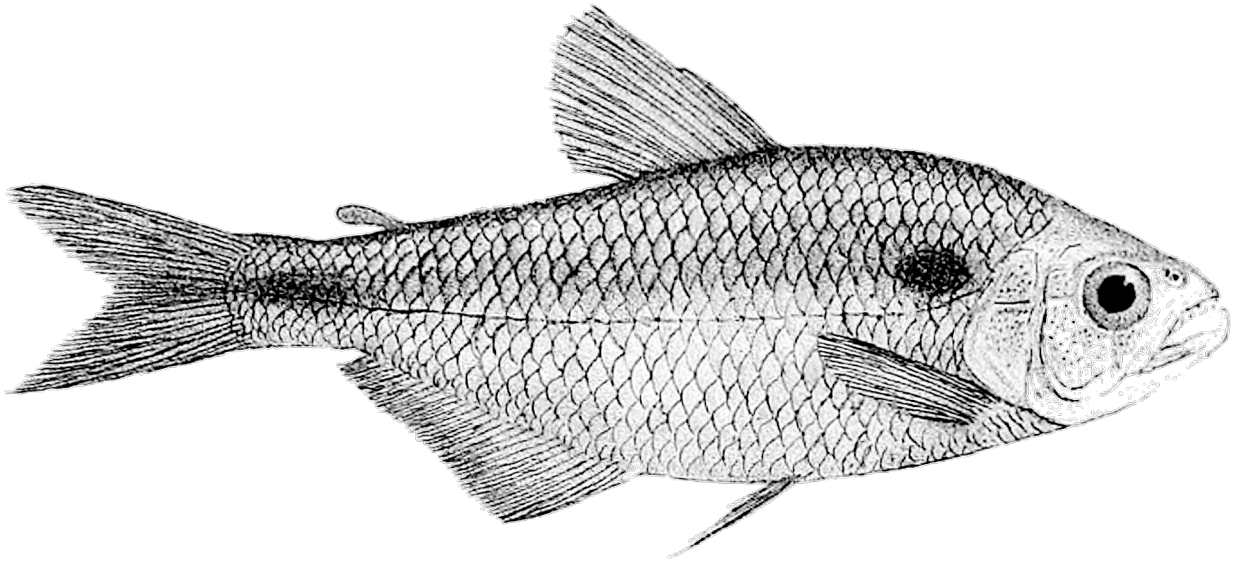
Rhoadsia altipinna. From: Fowler, H. W. 1911. New fresh-water fishes from western Ecuador. Proceedings of the Academy of Natural Sciences of Philadelphia 63: 493–520.

Order CHARACIFORMES

[no common name]

Family **ACESTRORHAMPHIDAE**

Subfamily **GRUNDULINAE** Fowler 1958



Astyanacinus moorii. Illustration by Robert Mintern. From: Boulenger, G. A. 1892. On some new or little-known fishes obtained by Dr. J. W. Evans and Mr. Spencer Moore during their recent expedition to the Province of Matto Grosso, Brazil. Annals and Magazine of Natural History (Series 6) v. 10 (no. 55) (art. 2): 9-12, Pls. 1-2.

Astyanacinus

Eigenmann 1907

-*inus* (L.), adjectival suffix, i.e., *Astyanax*-like, referring, per Eigenemann (1927), to how this genus "grades into" *Astyanax* (Acestrorhamphinae)

***Astyanacinus moorii* (Boulenger 1892)** in honor of English botanist Spencer Moore (1850–1931), who helped collect holotype[1]

Grundulus

Valenciennes 1846

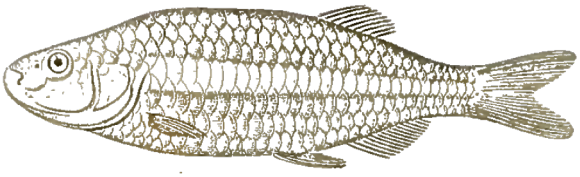
from a name dating to 1558 used for benthic gudgeons and loaches (*gründel*, German for bottom); Valenciennes believed this characin was a killifish (Cyprinodontiformes) and "borrowed" (translation) the name, which he stated was synonymous with *Fundulus* (*fundus*, Latin for bottom), a 15th-century name originally applied to gudgeons and later assigned to killifishes by Lacépède in 1803

***Grundulus bogotensis* (Humboldt 1821)** -*ensis*, Latin suffix denoting place: plains of Bogota, Colombia, type locality

***Grundulus cochae* Román-Valencia, Paepke & Pantoja 2003** of La Cocha Lake, southern Colombia, where it is endemic

***Grundulus quitoensis* Román-Valencia, Ruiz C. & Barriga 2005** -*ensis*, Latin suffix denoting place: Quito, Ecuador, near type locality and only known area of occurrence (El Voladero Lake, Carichi Province)

[1] Eigenmann, C. H. 1927. The American Characidae. Memoirs of the Museum of Comparative Zoology 43 (pt 4): 311–428, 24 pls.



Grundulus bogotensis. From: Humboldt, F. H. A. von and A. Valenciennes. 1821 Recherches sur les poissons fluviatiles de l'Amérique Équinoxiale. *In*: Voyage de Humboldt et Bonpland, Deuxième partie. Observations de Zoologie et d'Anatomie comparée. Paris. v. 2 (Title page 1833): 145–216, Pls. 45–52.

Order CHARACIFORMES

American Tetras

Family **ACESTRORHAMPHIDAE**

Subfamily **ACESTRORHAMPHINAE** Eigenmann 1907[1]

Astyanax apiaka, uncatalogued specimen photographed alive during field work. From: Ferreira, K. M., F. C. T. Lima, A. C. Ribeiro, N. Flausino Junior, F. A. Machado and J. M. Mirande. 2023. A new species of *Astyanax* (Characiformes, Characidae) from the rio Apiacás, rio Teles Pires basin, with a discussion on its phylogenetic position. Canadian Journal of Zoology 101 (7): 522–529.

Andromakhe

Terán, Benitez & Mirande 2020

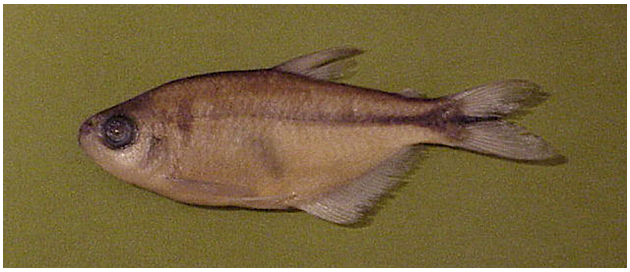
named for Andromakhe (Ἀνδρομάχη, "battle of men"), wife of Hector, Prince of Troy, in Greek mythology, and, in Homer's epic poem *Iliad*, the mother of Astyanax (Ἀστυάναξ, "city protector"), named for its relationship to and the original placement of its species in *Astyanax*

Andromakhe latens **(Mirande, Aguilera & Azpelicueta 2004)** Latin for hidden, referring to name of type locality (Arroyo El Oculto, Argentina), which means "hidden stream" in Spanish

Andromakhe paris **(Azpelicueta, Almirón & Casciotta 2002)** named for Paris (Πάρις), uncle of Astyanax, both of whom fought in the Trojan war, named for its original placement in *Astyanax*

Andromakhe stenohalina **(Messner 1962)** *sténos* (στένος), narrow; *halós* (ἁλός), genitive of *háls* (ἅλς), sea, i.e., stenohaline (intolerant of salt water), referring to its strictly freshwater habitat compared with *Psalidodon fasciatus* and *P. eigenmanniorum* (its presumed congeners at the time), both of which enter estuaries

Andromakhe tupi **(Azpelicueta, Mirande, Almirón & Casciotta 2003)** in honor of the Tupí indigenous people, who lived in northern Argentina, where this species occurs



Andromakhe tupi, holotype, male, 70.1 mm SL. From: Azpelicueta, M. de las M., J. M. Mirande, A. E. Almirón and J. R. Casciotta. 2003. A new species of *Astyanax* (Characiformes, Characidae) from Paraná river basin in Argentina. Revista del Museo de La Plata 15 (166): 1–12.

Astyanax

Baird & Girard 1854

Astyanax (Ἀστυάναξ, "city protector"), a Trojan warrior in Greek mythology, son of Hector, Prince of Troy, allusion not explained, perhaps referring to large silvery scales of *A. argentatus*, which could be said to resemble armor

Subgenus ***Astyanax***

Astyanax abramis **(Jenyns 1842)** *abramís* (ἀβραμίς), bream or mullet, probably referring to its "subrhomboidal form," similar to that of the Common Bream, *Abramis brama* (Cypriniformes: Leuciscidae)

Astyanax acatlanensis **Schmitter-Soto 2017** *-ensis*, Latin suffix denoting place: Río Acatlán, Puebla, México, type locality

Astyanax aeneus **(Günther 1860)** Latin for brazen, referring to its uniform brown coloration

Astyanax altior **Hubbs 1936** Latin for higher, probably referring to its "unusually high" fins

Astyanax altiparanae **Garutti & Britski 2000** *altus* (L.), high, i.e., of the upper Paraná River basin, Brazil, where it is endemic

Astyanax anai **Angulo, Santos, López, Langeani & McMahan 2018** in honor of the Asociación Anai, for their "exceptional work in support of the knowledge and conservation of aquatic environments and in the promotion and execution of sustainable development initiatives in the Talamanca region of eastern Costa Rica-western Panama (where this species occurs); name also represents a tribute to Ana Rosa Ramírez-Coghi, for her dedicated service, since the year 2000, as assistant collection manager of the Universidad de Costa Rica fish collection

Astyanax angustifrons **(Regan 1908)** *angustus* (L.), narrow; *frons* (L.), face, brow or forehead, allusion not explained, possibly referring to smaller snout compared with *A. mexicanus*

Astyanax apiaka **Ferreira, Lima, Ribeiro, Flausino Junior, Machado & Mirande 2023** named for the Apiaká, an indigenous group who inhabit the region where this species was collected (Tapurah-Nova Paraná, Porto dos Gaúchos, Mato Grosso, Brazil), and the eponymous river from where it is endemic [see also *Hemigrammus apiaka*]

[1] Family name from *Acestrorhamphus* Eigenmann & Kennedy 1903, a synonym of *Oligosarcus* Günther 1864. *akéstra* (ἀκέστρα), darning needle; *rhamphus*, from *rhámphos* (ῥάμφος), beak or bill, allusion not explained, probably referring to elongate snout (i.e., mouth) with needle-like conical teeth of *Oligosarcus hepsetus.*

***Astyanax aramburui* Protogino, Miquelarena & López 2006** in honor of Raúl H. Arámburu (1924–2004), researcher and professor of the Museo de La Plata, Buenos Aires, and founder of the first chair of ichthyology in Argentina, where this species is endemic

***Astyanax argentatus* Baird & Girard 1854** Latin for plated with silver, referring to its silvery sides

***Astyanax argyrimarginatus* Garutti 1999** *árgyros* (ἄργυρος), white metal (i.e., silver); *marginatus* (L.), edged or bordered, referring to silver edge around black lateral stripe

***Astyanax asuncionensis* Géry 1972** *-ensis*, Latin suffix denoting place: Asunción, Paraguay, where part of the type series was collected [replacement name for *A. bimaculatus paraguayensis* Eigenmann 1921, secondarily preoccupied by *Bertoniolus paraguayensis* Fowler 1918 in *Astyanax*]

***Astyanax bacalarensis* Schmitter-Soto 2017** *-ensis*, Latin suffix denoting place: Lake Bacalar, Quintana Roo, Mexico, type locality

***Astyanax bagual* Bertaco & Vigo 2015** Tupí-Guaraní word meaning "wild horse, or what is mortal, or dangerous to mount," an expression used to convey that a male horse is reproductively ready in the countryside of Rio Grande do Sul State, Brazil, where this species occurs, alluding to presence of bony hooks on all fins of mature males

***Astyanax bahiensis* (Steindachner 1877)** *-ensis*, Latin suffix denoting place: Bahia, Brazil, type locality

***Astyanax baileyi* (Rosen 1972)** in honor of American ichthyologist Reeve M. Bailey (1911–2011), University of Michigan, "teacher, friend, and colleague of 26 years, and field companion in Guatemala during 1966, 1968, and 1971"

***Astyanax belizianus* (Bocourt 1868)** *-anus* (L.), belonging to: Belize, where type locality (Mullins River) is situated

***Astyanax bimaculatus* (Linnaeus 1758)** *bi-*, from *bis* (L.), twice; *maculatus* (L.), spotted, referring to humeral and caudal spots

***Astyanax boliviensis* Ruiz-C., Román-Valencia, Taphorn, Buckup & Ortega 2018** *-ensis*, Latin suffix denoting place: Bolivia, where type locality (Candelaria River at La Candelaria, Iturralde Province) is situated

***Astyanax bourgeti* Eigenmann 1908** in memory of French naturalist D. Bourget, a resident of Rio de Janeiro, Brazil, and member of the Thayer Expedition (1865–1866), who collected holotype

***Astyanax bransfordii* (Gill 1877)** in honor of John F. Bransford (1846–1911), Assistant Surgeon, U.S. Navy, who collected holotype and co-authored Gill's paper on the fishes of Lake Nicaragua

***Astyanax brevimanus* Günther 1864** *brevis* (L.), short; *manus* (L.), hand, homologous to the pectoral fin, which does not extend to ventral fin

***Astyanax brevirhinus* Eigenmann 1908** short-nosed, from *brevis* (L.), short, and *rhinós* (ῥινός), genitive of *rhís* (ῥίς), nose, referring to its blunt snout

***Astyanax brevoortii* (Gill 1858)** in honor of James Carson Brevoort (1818–1887), "whose profound knowledge of the North American marine fishes, and especially those of the family of Scombroids, to which his memoir on the 'lost fish,' *Selene argentea* of Lacepede [=*S. vomer*], bears testimony, places him among the first of ichthyologists" (Brevoort was a businessman and philanthropist who supported various literary and scientific societies and institutions and was himself a fine amateur naturalist; his zoological library was then reputed to be the finest in America)

***Astyanax caballeroi* (Contreras-Balderas & Rivera-Teillery 1985)** in memory of the "distinguished" (translation) Mexican biologist Eduardo Caballero y Caballero (1904–1974)

***Astyanax caroni* Ruiz-C, Román-Valencia & Taphorn 2023** named for the Caroní River drainage, Venezuela, only known area of occurrence

***Astyanax chaparae* Fowler 1943** of Río Chapare, Cochabamba, Bolivia, type locality

***Astyanax clavitaeniatus* Garutti 2003** *clava* (L.), club; *taeniatus* (L.), banded, referring to black club-shaped lateral stripe

***Astyanax cocibolca* Bussing 2008** named for Lake Cocibolca, indigenous name for Lake Nicaragua (Nicaragua and Costa Rica) and rivers draining into it, where this species is endemic

***Astyanax cordovae* (Günther 1880)** of the Río de Cordova, Argentina, type locality

***Astyanax courensis* Bertaco, Carvalho & Jerep 2010** *-ensis*, Latin suffix denoting place: rio dos Couros, upper rio Tocantins basin, Goiás, Brazil, type locality

***Astyanax cubilhuitz* Schmitter-Soto 2017** named for Cubilhuitz, Alta Verapaz, Guatemala, type locality

***Astyanax cuyuni* Ruiz-C, Román-Valencia & Taphorn 2023** named for the Cuyuni River drainage, Venezuela (and possibly adjacent Guyana), type locality

***Astyanax depressirostris* Miranda Ribeiro 1908** *depressus* (L.), pressed down; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to its "highly depressed muzzle" (translation)

***Astyanax dorioni* (Rosen 1970)** in honor of Robert C. Dorion (b. 1926), entrepreneur and investor, for "continuing assistance for our field efforts in Guatemala since 1963, and whose companionship and hard work during several field trips have always been greatly appreciated"

***Astyanax douradilho* Bertaco 2014** regional southern Brazilian name for a horse's color pattern consisting of a reddish-brown or a golden-yellow, referring to the color of this fish's fins in life

***Astyanax elachylepis* Bertaco & Lucinda 2005** *élacho* (ἐλαχύς), small or insignificant; *lepís* (λεπίς), scale, referring to small size of scales

***Astyanax embera* Ruiz-C., Román-Valencia, Taphorn, Buckup & Ortega 2018** named for the Embera, indigenous people who occupy type locality (Barbacoas Municipality, Nariño Department, Colombia)

***Astyanax epiagos* Zanata & Camelier 2008** *epí-* (ἐπί) or *epi-* (ἐπι), on top of; *agos*, from *diasphágos* (διασφάγος), genitive of *diasphax* (διασφάξ), an opening, especially a gorge, through which a river runs (authors say "rocky cleft"), referring to area above waterfall and valley formed by rio Ferro Doido, Bahia, Brazil, where it is endemic

***Astyanax eremus* Ingenito & Duboc 2014** Latin for alone or uninhabited, referring to the absence of other fish species at the type locality

***Astyanax fasslii* (Steindachner 1915)** in honor of Anton Heinrich Hermann Fassl (1876–1922), German commercial butterfly and beetle collector, who collected holotype

***Astyanax finitimus* (Bocourt 1868)** Latin for adjoining, neighboring or bordering, described as very close ("très-voisine") to *Tetragonopterus macrophthalmus* (=*A. mexicanus*)

***Astyanax gandhiae* Ruiz-C., Román-Valencia, Taphorn, Buckup & Ortega 2018** in honor of the late Maria Gandhi Calderon, mother of the first author

***Astyanax garuttii* Ruiz-C, Román-Valencia & Taphorn 2023** in honor of Brazilian ichthyologist Valdener Garutti, for his contribution to our knowledge and understanding of the *A. bimaculatus* species group

***Astyanax gisleni* Dahl 1943** in honor of Swedish zoologist Torsten Gislen (1893–1954), who gave Dahl the opportunity to work at the Zoological Institute of Lund, and for his kind interest in Dahl's studies

***Astyanax goyacensis* Eigenmann 1908** *-ensis*, Latin suffix denoting place: Goiás (spelled Goyaz by Eigenmann), Brazil, where it is endemic to the rio Tocantins basin

***Astyanax gracilior* Eigenmann 1908** Latin for slimmer, allusion not explained nor evident, perhaps slenderer than the "closely related"

Makunaima multidens, its presumed congener at the time

Astyanax guaricana **Oliveira, Abilhoa & Pavanelli 2013** named for Guaricana Reservoir, Paraná State, Atlantic Rainforest of Brazil, type locality

Astyanax incaicus **Tortonese 1942** *-icus* (L.), belonging to, the Incas, probably referring to its distribution in southeast Ecuador, which was part of the Inca Empire in the 15th century

Astyanax integer **Myers 1930** Latin for complete, whole or unbroken, probably referring to complete scalation of dorsal midline, a character that defines the subgenus *Astyanax*

Astyanax jacobinae **Zanata & Camelier 2008** of municípo de Jacobina, where type locality (rio da Jaqueira, Bahia, Brazil) is situated

Astyanax jacuhiensis **(Cope 1894)** *-ensis*, Latin suffix denoting place: Rio Jacuí, Rio Grande do Sul, Brazil, type locality

Astyanax jenynsii **(Steindachner 1877)** in honor of English clergyman and naturalist Leonard Jenyns (1800–1893), who described the similar *A.* (now *Psalidodon*) *scabripinnis* in 1842

Astyanax joaovitori **Oliveira, Pavanelli & Bertaco 2017** in honor of João Vitor Kadota Oliveira, son of the first author

Astyanax jordanensis **Vera Alcaraz, Pavanelli & Bertaco 2009** *-ensis*, Latin suffix denoting place: rio Jordão, a tributary of the rio Iguaçu basin, Paraná, Brazil, type locality

Astyanax jordani **(Hubbs & Innes 1936)** in honor of Charles Basil Jordan (1902–1989), Texas Aquaria Fish Company (Dallas, Texas, USA), for the "gift" of the type specimens and for the "privilege of making his interesting discovery [first recorded blind characin] known to the scientific and aquarium world" [treated as a junior synonym of *A. mexicanus* by some workers]

Astyanax kennedyi **Géry 1964** in memory of the late John F. Kennedy (1917–1963), 35th President of the United States of America

Astyanax keronolepis **Silva, Malabarba & Malabarba 2019** *kērṓnos* (κηρών), genitive of *kērṓn* (κηρών), beehive; *lepís* (λεπίς), scale, referring to reticulation pattern of scales resembling a beehive

Astyanax kompi **Hildebrand 1938** in honor of the "distinguished" medical entomologist William H. W. Komp (1893–1955), U.S. Public Health Service, who accompanied Hildebrand in his investigations in the Volcán region of Panama, where this species was discovered

Astyanax kullanderi **Costa 1995** in honor of Swedish ichthyologist Sven O. Kullander (b. 1952), Swedish Museum of Natural History, who collected holotype and made it available for study, and for his contributions to Neotropical ichthyology

Astyanax lacustris **(Lütken 1875)** Latin for of or belonging to a lake (lacustrine), described from Lagoa Santa, Brazil

Astyanax leoni **Ruiz-C., Román-Valencia & Taphorn 2023** in honor of Oscar León Mata (1964–2018), killifish collector and aquarist, environmental engineer, and fish curator (Museo de Ciencias Naturales in Guanare, Venezuela)

Astyanax leopoldi **Géry, Planquette & Le Bail 1988** in honor of King Léopold III of Belgium (1901–1983), an amateur entomologist who spent some of his post-abdication life exploring South America, for helping to collect holotype and for contributions to the knowledge of Neotropical fauna

Astyanax longior **(Cope 1878)** Latin for longer, described as one of the "more elongate forms of the genus"

Astyanax lorien **Zanata, Burger & Camelier 2018** from the Quenya language meaning "Dream Land," referring to "beautiful" areas on the Chapada Diamantina (Bahia, Brazil) inhabited by this species (Quenya is a fictional language devised by J. R. R. Tolkien for his "Lord of the Rings" trilogy, spoken by the Elves)

Astyanax macal **Schmitter-Soto 2017** named for the Macal River, Maya Mountains, Belize, type locality (probably from the Mayan *makal*, meaning yam)

Astyanax maculisquamis **Garutti & Britski 1997** *macula* (L.), mark or stain; *squamis*, Neo-Latin scientific adjective of *squama* (L.), scale, referring to black spot on middle of each scale, creating a pattern of parallel longitudinal stripes

Astyanax maximus **(Steindachner 1876)** Latin for greatest, presumably referring to its large size for an *Astyanax*, up to 20 cm

Astyanax megaspilura **Fowler 1944** *mégas* (μέγας), big; *spílos* (σπίλος), mark or spot; *ourá* (οὐρά), tail, referring to "greatly conspicuous" black caudal blotch

Astyanax mexicanus **(De Filippi 1853)** *-anus* (L.), belonging to: Mexico, where type locality (probably Lake Tequesquitengo, Morelos) is situated

Astyanax microlepis **Eigenmann 1913** *micro-*, from *mikrós* (μικρός), small; *lepís* (λεπίς), scale, referring to smaller, more numerous scales compared with the similar *A.* (*Zygogaster*) *caucanus*

Astyanax microschemos **Bertaco & Lucena 2006** *micro-*, from *mikrós* (μικρός), small (authors say low); *schemos*, from *schḗma* (σχῆμα), form or shape (authors say stature), referring to shallow body depth

Astyanax multidens **(Pearson 1924)** *multi-* (L.), many; *dens* (L.), tooth, described as having "3 or 4 teeth in the outer series of the premaxillary, 5 in the inner row; mandible with 4 large teeth in front and then followed abruptly by smaller teeth on the sides; maxillary with about 11 teeth along almost the entire border"[1] [also known as *A. bopiensis*,[2] but that replacement name is unnecessary since this species is no longer secondarily preoccupied in *Astyanax* by *Makunaima multidens*]

Astyanax myersi **(Fernández-Yépez 1950)** in honor of Stanford University ichthyologist George S. Myers (1905–1985), to whom Fernández-Yépez owed much of his "limited" (translation) knowledge of South American fishes

Astyanax nasutus **Meek 1907** Latin for large-nosed, referring to its longer snout compared with *A. aeneus*

Astyanax nicaraguensis **Eigenmann & Ogle 1907** *-ensis*, Latin suffix denoting place: Nicaragua, where holotype was collected (probably from the Atlantic versant)

Astyanax novae **Eigenmann 1911** of rio Nova, Goiás (spelled Goyaz by Eigenmann), Brazil, where 13 of the 26 type specimens were collected

Astyanax obscurus **(Hensel 1870)** Latin for dark, referring to its darker coloration compared with its silvery congener at the time, *Tetragonopterus* (=*Cyanocharax*) *alburnus*

Astyanax ocotal **Valdez-Moreno, Rodiles-Hernández & Schmitter-Soto 2017** named for Laguna Ocotal, Lacandon region, Chiapas, Mexico, type locality

Astyanax orbignyanus **(Valenciennes 1850)** *-anus* (L.), belonging to: Alcide d'Orbigny (1802–1857), French explorer and naturalist, who provided holotype and information about its habitat and behavior [*species inquirenda*; may represent a valid species or a senior or junior synonym of *A. lacustris*]

Astyanax orstedii **(Krøyer 1875)** in honor of Danish botanist Anders Sandoe Ørsted (1816–1872), who collected holotype [sometimes incorrectly spelled *oerstedii*]

Astyanax orthodus **Eigenmann 1907** *orthós* (ὀρθός), straight; *odoús* (ὀδούς), tooth, referring to denticles on surface of teeth arranged in a line comparedwithto the nearly identical *A. bimaculatus*, in which the denticles are arranged in a curve

Astyanax panamensis **(Günther 1864)** *-ensis*, Latin suffix denoting place: Pacific coast of Panama, co-type locality (also described from

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[2] *Astyanax bopiensis* Ruiz-C., Román-Valencia, Taphorn, Buckup & Ortega 2018, *-ensis*, Latin suffix denoting place: lower Bopi River, Bolivia, type locality

specimens collected in Guatemala)

Astyanax pardensis **Salgado 2021** *-ensis*, Latin suffix denoting place: Pardo River basin, Camacan, Bahia, Brazil, type locality

Astyanax petenensis **(Günther 1864)** *-ensis*, Latin suffix denoting place: Lake Petén, Guatemala, type locality

Astyanax pirabitira **Lucena, Bertaco & Berbigier 2013** combination of *pira* and *ybytyra*, Tupí-Guaraní words for fish and mountain, respectively, referring to its occurrence at altitudes higher than 800 m

Astyanax poetzschkei **Ahl 1932** in honor of Paul Pötzschke (1881–1957), co-owner of Scholze & Pötzschke, an aquarium supply and tropical fish importation firm in Berlin, who donated a large number of "valuable objects" (translation) to the Zoological Museum of Berlin, including holotype of this species [see also *Hyphessobrycon scholzei*]

Astyanax procerus **Lucena, Castro & Bertaco 2013** Latin for high or tall, referring to its high body depth

Astyanax rioverde **Lozano-Vilano & Schmitter-Soto 2017** named for Rioverde, San Luis Potosí, Mexico, type locality

Astyanax rupestris **Zanata, Burger & Camelier 2018** Neo-Latin for living among rocks, referring to the rocky-bottomed rivers where it lives and the rocky environment characteristic of the Chapada Diamantina (Bahia, Brazil), where it occurs

Astyanax rupununi **Fowler 1914** named for the Rupununi River, Guiana, where it is endemic to the river and its drainage

Astyanax saltor **Travassos 1960** etymology not explained nor evident, perhaps derived from *saltare* (L.), to jump or leap

Astyanax salvatoris **Valdez-Moreno, Lozano-Vilano & Schmitter-Soto 2017** *-is*, Latin genitive singular of: Mexican ichthyologist Salvador Contreras-Balderas (1936–2009), "one of the greatest students of Mexican fishes in general, and of *Astyanax* in particular"

Astyanax scintillans **Myers 1928** Latin for shiny or bright, referring to its "highly iridescent" coloration

Astyanax siapae **Garutti 2003** of Rio Siapa and/or campamento (campsite) Siapa II, Amazonas, Venezuela, type locality

Astyanax sincora **Burger, Carvalho & Zanata 2019** named for Serra do Sincorá, an orographic system situated on central portion of Chapada Diamantina, Bahia, Brazil; this species occurs at the base of its western slopes

Astyanax superbus **Myers 1942** Latin for excellent, superior or splendid, allusion not explained, perhaps referring to its intricate color pattern of wavy lines, unusual for the genus

Astyanax symmetricus **Eigenmann 1908** Latin for symmetrical, referring to its nearly symmetrical caudal spot

Astyanax tamiahua **Schmitter-Soto 2017** named for Tamiahua, northern Veracruz, Mexico, type locality

Astyanax taurorum **Lucena, Zaluski & Lucena 2017** Latin for of the bulls, referring to rio dos Touros ("river of the bulls"), Rio Grande do Sul, Brazil, type locality

Astyanax tehuacanensis **Schmitter-Soto 2017** *-ensis*, Latin suffix denoting place: Tehuacán, Papaloapan basin, Puebla, Mexico, type locality

Astyanax totae **Ferreira Haluch & Abilhoa 2005** in honor of Tota, nickname of Brazilian biologist Adelinyr Azevedo de Moura Cordeiro, for her contribution to the fish collection at Museu de História Natural Capão, Parques de Curitiba, Imbuia de Prefeitura Municipal de Curitiba, Curitiba, Paraná, Brazil

Astyanax trierythropterus **Godoy 1970** *tri-* (L.), three; *erythrós* (ἐρυθρός), red; *pterus*, from *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, referring to its deep-red dorsal, anal and caudal fins

Astyanax unitaeniatus **Garutti 1998** *uni-*, from *unus* (L.), one; *taeniatus* (L.), banded, referring to single black stripe on sides

Astyanax utiariti **Bertaco & Garutti 2007** Utiariti ("place of clever people"), e.g., Salto Utiarity, or Utiarity Falls, indigenous Pareci name for the upper rio Tapajós drainage, Mato Grosso, Brazil, type locality

Astyanax validus **Géry, Planquette & Le Bail 1991** Latin for strong, vigorous or robust, referring to its "vigorous appearance" (translation)

Astyanax varii **Zanata, Burger, Vita & Camelier 2019** in honor of Richard P. Vari (1949–2016), National Museum of Natural History, Smithsonian Institution (Washington, D.C., USA), for his "friendship, mentoring, and outstanding contribution to the systematic of South American freshwater fishes"

Astyanax villwocki **Zarske & Géry 1999** in honor of ichthyologist Wolfgang Villwock (1930–2014), University of Hamburg, who collected some of the type series and made them available for study

Astyanax viridis **Salgado 2021** Latin for green, referring to greenish color of dorsal and lateral body regions

Astyanax yariguies **(Torres-Mejia, Hernández & Senechal 2012)** named for the Yariguíes, an indigenous group who inhabited the Río Cascajales watershed, Colombia, where it is endemic; their fierce defense of their territory for 400 years likely contributed to the protection of this species, but they eventually succumbed to invasion and extermination in the mid-20th century

Subgenus ***Zygogaster***
Eigenmann 1913

zygón (ζυγόν), yoke; *gastḗr* (γαστήρ), belly or abdomen, allusion not explained, presumably referring in some way to "peculiar" preventral scalation of *A. filiferus*, in which the lowest row of scales on sides nearly meet in front of the ventral fins

Astyanax caucanus **(Steindachner 1879)** *-anus* (L.), belonging to: Río Cauca, Colombia, type locality

Astyanax filiferus **(Eigenmann 1913)** *filum* (L.), thread; *fero* (L.), to have or bear, referring to prolonged ("filiform") outer rays of ventral fins and first ray of dorsal fin in males

Astyanax stilbe **(Cope 1870)** *stílbē* (στίλβη), lamp or mirror (i.e., shining), presumably referring to its "very distinct" silver lateral band

Subgenus *Incertae sedis*

Astyanax brucutu **Zanata, Lima, Di Dario & Gerhard 2017** Portuguese adjective meaning a strong and rough person, referring to blunt and massive general aspect of anterior portion of cranium and lower jaw

Astyanax daguae **Eigenmann 1913** of the Dagua River, Colombia, type locality [probably belongs in Hyphessobryconinae[3]; provisionally retained here pending future studies]

Astyanax dolinae **da Graça, Oliveira, Lima, da Silva & Fernandes 2017** of Dolina Água Milagrosa, Cáceres, Mato Grosso, Brazil, type locality

Astyanax lineatus **(Perugia 1891)** Latin for lined, referring to 10–12 black narrow longitudinal bands on body

Astyanax metae **Eigenmann 1914** of the Río Meta, Orinoco system, Colombia, presumably the type locality

Astyanax nobre **Dagosta & Marinho 2022** named for the municipality of Nobres (Mato Grosso State, Brazil), where it occurs; additionally, *nobre* means noble in Portuguese, in allusion to the beauty of the type locality and of being a "noteworthy" species of *Astyanax* (discovered in an underwater tourist point near a large urban center)

Astyanax pintacuia **Sarino-Araújo, Silva-Oliveira, Lima, Canto & Ribeiro**

[3] Melo, B. F., R. P. Ota, R. C. Benine, F. R. Carvalho, F. C. T. Lima, G. M. T. Mattox, C. S. Souza, T. C. Faria, L. Reia, F. F. Roxo, M. Valdez-Moreno, T. J. Near and C. Oliveira. 2024. Phylogenomics of Characidae, a hyper-diverse Neotropical freshwater fish lineage, with a phylogenetic classification including four families (Teleostei: Characiformes). Zoological Journal of the Linnean Society 202 (1): zlae101: [1-37].

2026 named for the *pinta-cuia* (painted gourds) culture, a local custom inherited from the indigenous peoples of the Gurupatuba settlement, a term later affectionately extended to the natives of the municipality of Monte Alegre, Pará State, Brazil, where this species occurs

Astyanax pirapuan **Tagliacollo, Britzke, Silva & Benine 2011** combination of *pira* and *apu*, Tupí-Guaraní words for fish and mountain, respectively, referring to geological characteristics of type locality, Chapada dos Guimarães, Mato Grosso, Brazil

Astyanax pirauba **(Zanata, Birindelli & Moreira 2010)** *pira* and *aúaba*, Tupí words for fish and false, respectively, referring to its apparent mimicry with species of *Jupiaba*

Astyanax tarpon **(Eigenmann 1912)** referring to its large, oblique mouth, a "duplicate of that of the Tarpon" (Megalopidae)

Astyanax venezuelae **Schultz 1944** of Venezuela, where type locality (Río Torbes, 1 km above Táriba, Orinoco system) is situated

Ctenobrycon

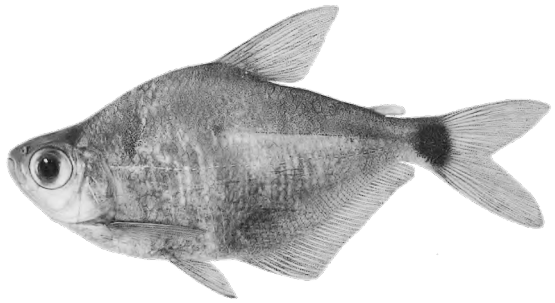
Eigenmann 1908

cteno-, from *ktenós* (κτενός), comb, referring to ctenoid scales of *C. hauxwellianus*, which are "especially rough" on the breast; *brycon*, generalized term used in generic names of many characiform fishes, derived from *brýchō* (βρύχω), to bite, gnash teeth or eat greedily, originally an allusion to fully toothed maxillae

Ctenobrycon atratoensis **(Eigenmann 1907)** *-ensis*, Latin suffix denoting place: Colombia, where it is endemic to the Atrato River basin

Ctenobrycon hauxwellianus **(Cope 1870)** *-anus* (L.), belonging to: English commercial natural history collector John Hauxwell (1827–1919), who "procured" most of the species described in Cope's paper on the fishes of Marañón River, Peru, including holotype of this one [treated as a junior synonym of *C. spilurus* by some workers]

Ctenobrycon kennedyi **(Eigenmann 1903)** in honor of Eigenmann's student Clarence Hamilton Kennedy (1879–1952), later a renowned entomologist, who co-authored paper on Paraguayan fishes in which this description appeared



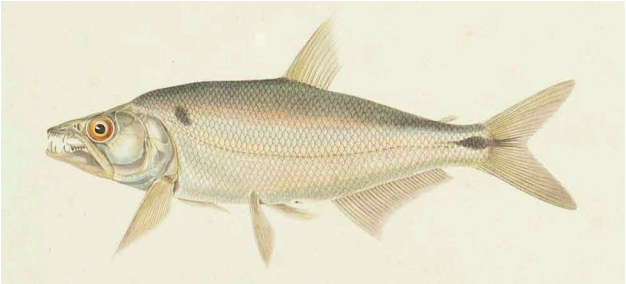
Probably first-published image of *Ctenobrycon kennedyi.* From: Eigenmann, C. H. 1927. The American Characidae [Part IV]. Memoirs of the Museum of Comparative Zoology 43 (4): 311–428, 24 pls.

Ctenobrycon magdalenae **(Eigenmann & Henn 1916)** of the Río Magdalena basin, Colombia, type locality

Ctenobrycon multiradiatus **(Steindachner 1876)** *multi-* (L.), many; *radiatus* (L.), rayed, presumably referring to 40–41 anal-fin rays [treated as a junior synonym of *C. spilurus* by some workers]

Ctenobrycon oliverai **Benine, Lopes & Ron 2010** in honor of Brazilian ichthyologist Claudio de Oliveira, who collected holotype and is a "great contributor" to our knowledge of Neotropical ichthyology

Ctenobrycon spilurus **(Valenciennes 1850)** spot-tailed, from *spílos* (σπίλος), mark or spot, and *ourá (*οὐρά), tail, referring to black spot near base of caudal fin



Probably first-published image of *Oligosarcus hepsetus*, then misidentifed as *Hydrocyon* (now *Acestrorynchus*) *falcatus* (Acestrorhynchidae). Painting by Antoine Germain Bévalet. From: Quoy, J. R. C. and J. P. Gaimard. 1824-25. Description des Poissons. Chapter IX. *In*: Freycinet, L. de, Voyage autour du Monde ... exécuté sur les corvettes de L. M. "L'Uranie" et "La Physicienne," pendant les années 1817, 1818, 1819 et 1820. Paris. 192–401 [1–328 in 1824; 329–616 in 1825], Atlas pls. 43–65. [1–328 in 1824; 329–616 in 1825], Atlas pls. 43–65.

Oligosarcus

Günther 1864

olígos (ὀλίγος), small, few or scanty; *arcus* (L.), bow, allusion not explained nor evident, perhaps referring in some way to "compressed, oblong" shape of *O. argenteus*

Oligosarcus acutirostris **Menezes 1987** *acutus* (L.), sharp or pointed; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to its "sharply acute muzzle" (translation)

Oligosarcus amome **Almirón, Casciotta, Piálek, Doubnerová & Říčan 2015** Guaraní word for rare or once in a while, referring to its low occurrence in the localities where types were captured

Oligosarcus argenteus **Günther 1864** Latin for silvery, referring to its "shining silvery" color in spirits, with a silvery band down middle of body

Oligosarcus bolivianus **(Fowler 1940)** *-anus* (L.), belonging to: Bolivia, referring to country where type locality (Río Lipeo) is situated

Oligosarcus brevioris **Menezes 1987** *brevis* (L.), short; *oris* (L.), mouth, referring to its proportionally smaller mouth compared with congeners

Oligosarcus hepsetus **(Cuvier 1829)** etymology not explained, probably from *hepsētós* (ἑψητός), perhaps alluding to the Greek poet Archippus (late 5th-century BC), who wrote: "An hepsetus fell in with an anchovy / And quick devoured him," referring to this species' piscivorous nature[4]

Oligosarcus itau **Mirande, Aguilera & Azpelicueta 2011** named for a small tributary of the Río Itau, Río Bermejo basin, Argentina, type locality; name probably derives from the Guaraní words *itá*, stone and *y* (pronounced as the German *ü*), water

Oligosarcus jacuiensis **Menezes & Ribeiro 2010** *-ensis*, Latin suffix denoting place: rio Jacuí, Rio Grande do Sul, southern Brazil, type locality

Oligosarcus jenynsii **(Günther 1864)** in honor of English clergyman and naturalist Leonard Jenyns (1800–1893), who reported this species as *Hydrocyon* (=*Oligosarcus*) *hepsetus* in 1842

Oligosarcus longirostris **Menezes & Géry 1983** *longus* (L.), long; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to pointed and long snout, equal or larger than orbital diameter in specimens 100 mm SL or larger

Oligosarcus macrolepis **(Steindachner 1877)** *makrós* (μακρός), long or large; *lepís* (λεπίς), scale, referring to its "rather large" (translation) scales, 44 along the lateral line

Oligosarcus menezesi **Miquelarena & Protogino 1996** in honor of Brazilian ichthyologist Naércio Aquino Menezes (b. 1937), presumably for his taxonomic work on the genus

Oligosarcus oligolepis **(Steindachner 1867)** *olígos* (ὀλίγος), small, few or scanty; *lepís* (λεπίς), scale, referring to its small scales, 75 along the

[4] *Hepsētós* (literally "boiled") is also a Greek "kitchen term" for the "small fry of fishes and other things" that were "put in the frying pan" or boiled for bouillabaisse (Thompson, D. W. 1947. A glossary of Greek fishes. London: Oxford University Press. vi + 302 pp.). Linnaeus used the name for the anchovy *Anchoa hepsetus* and the superficially similar atherinid *Atherina hepsetus*, both of which were used in fish stew or soup. Swainson (1838), perhaps following Cuvier's lead in applying the name to a large and toothy piscivore, described *Hepsetus*, an ecologically convergent genus from Africa.

lateral line

Oligosarcus paranensis **Menezes & Géry 1983** *-ensis*, Latin suffix denoting place: upper Paraná River basin (Argentina, Brazil, Paraguay), where it is endemic

Oligosarcus perdido **Ribeiro, Cavallaro & Froehlich 2007** Portuguese for lost, referring to rio Perdido, Mato Grosso, Brazil, type locality

Oligosarcus pintoi **Amaral Campos 1945** in honor of Brazilian zoologist Olivério Mário de Oliveira Pinto (1896–1981)

Oligosarcus planaltinae **Menezes & Géry 1983** of Córrego Planaltina, tributary of rio São Bartolomeu, rio Paraná system, Goiás, Brazil, type locality

Oligosarcus platensis **(Messner 1962)** *-ensis*, Latin suffix denoting place: La Plata River basin, Uruguay, where it is endemic

Oligosarcus robustus **Menezes 1969** Latin for of oak or oaken and, by extension, hard, firm or solid (but often used by ichthyologists to mean fat or stout), referring to its "large and massive" body

Oligosarcus schindleri **Menezes & Géry 1983** in honor of the late Otto Schindler (1906–1959), curator, Ichthyology Department, Zoologische Staatssammlung (Munich), who helped collect holotype in 1953

Oligosarcus solitarius **Menezes 1987** Latin for alone or isolated, referring to its distribution in an isolated system of lakes, Vale do Río Doce, Minas Gerais, Brazil

Oligosarcus varii **Menezes & Ribeiro 2015** in honor of Richard P. Vari (1949–2016), National Museum of Natural History, Smithsonian Institution (Washington, D.C., USA), for his "outstanding" contribution to the knowledge of South American freshwater fishes

Psalidodon

Eigenmann 1911

psalís (ψαλίς), a pair of shears or scissors; *odon*, from *odoús* (ὀδούς), tooth, referring, per Eigenmann and Myers (1929),[5] to "nipper-like dentition" of *P. gymnodontus*

Psalidodon alleni **(Eigenmann & McAtee 1907)** in honor of American zoologist Joel Asaph Allen (1838–1921), American Museum of Natural History

Psalidodon anisitsi **(Eigenmann 1907)** in honor of Hungarian-born Paraguayan botanist and collector Juan Daniel Anisits (1856–1911), National University of Paraguay, who collected holotype

Psalidodon argentum **(Salgado 2021)** Latin for silver (noun), referring to silver band longitudinal to the body [described in *Astyanax* but placed in *Psalidodon* by Eschmeyer's Catalog of Fishes based on its relationship with *P. fasciatus*; description is no longer available online so perhaps it has been withdrawn]

Psalidodon balbus **(Myers 1927)** Latin for stammering or stuttering, referring to its usually incomplete lateral line

Psalidodon bifasciatus **(Garavello & Sampaio 2010)** *bi-*, from *bis* (L.), twice; *fasciatus* (L.), striped, referring to two vertical dark brown bars crossing humeral region

Psalidodon biotae **(Castro & Vari 2004)** in honor of Biota, i.e., the BIOTA/FAPESP—The Virtual Biodiversity Institute Program (www.biota.org.br), for its "pioneering role" in the inventory, conservation and sustainable use of biodiversity resources in São Paulo, Brazil; in addition, the special research program of the Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) supported the collecting efforts that yielded all known specimens of this species

Psalidodon bockmanni **(Vari & Castro 2007)** in honor of Flávio A. Bockman, Universidade de São Paulo, who collected much of the type series, for his contributions to the knowledge of Neotropical catfishes and fishes of the upper rio Paraná basin, Brazil

Psalidodon brachypterygium **(Bertaco & Malabarba 2001)** *brachys* (βραχύς), short; *pterygium*, from *pterygion*, diminutive of *ptéryx* (πτέρυξ), wing or fin, referring to its short anal fin

Psalidodon canaaensis **Queiroz, Henschel & Silva 2025** *-ensis*, Latin suffix denoting place: municipality of Canaã, Minas Gerais State, Brazil, where it occurs

Psalidodon chico **(Casciotta & Almirón 2004)** in honor of Francisco Alves "Chico" Mendes (1944–1988), Brazilian rubber tapper and union leader who fought to preserve the Amazonian rainforest; he was assassinated by a rancher whom Mendes had prevented from logging a protected area, while gaining a warrant for the rancher's arrest for a murder committed elsewhere [presumably a noun in apposition, without the genitive "*i*"]

Psalidodon correntinus **(Holmberg 1891)** *-inus* (L.), belonging to: Corrientes, a city at Río Paraná, Argentina, type locality

Psalidodon cremnobates **(Bertaco & Malabarba 2001)** *krēmnós* (κρημνός), steep slope; *bátēs* (βάτης), one who treads, a "frequenter of steep places" per the authors, referring to its occurrence at elevations higher than 800 m

Psalidodon crenuchoides **(Zarske & Géry 1999)** *-oides*, Neo-Latin from *eī́dos* (εἶδος), having the form of: referring to "thick, beefy" body shape (translation), similar to that of *Crenuchus spilurus* (Crenuchidae)

Psalidodon dissensus **(Lucena & Thofehrn 2013)** Latin for disagreement, referring to larger maxillary heptacuspid tooth peculiar to this species and unusual in the genus

Psalidodon dissimilis **(Garavello & Sampaio 2010)** Latin for unlike or dissimilar, referring to the differences of this species in relation to four congeners (then in *Astyanax*) described in the same publication

Psalidodon eigenmanniorum **(Cope 1894)** *-orum*, commemorative suffix (L.), plural: in honor of Carl H. Eigenmann (1863–1927) and his wife Rosa (1858–1947), University of Indiana, for their work on the fishes of South America

Psalidodon endy **(Mirande, Aguilera & Azpelicueta 2006)** Chiriguano (Guaraní-speaking Indians of Bolivia and Argentina, the latter country being where this fish is endemic) word meaning flame, referring to color of caudal fin in life

Psalidodon erythropterus **(Holmberg 1891)** red-finned, from *erythrós* (ἐρυθρός), red, and *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, referring to its bright-red, almost vermilion, paired fins in life

Psalidodon fasciatus **(Cuvier 1819)** Latin for banded, referring to band-like blackish spot at root of caudal fin which sometimes extends forward to humeral spot (sometimes blackish band is entirely or partly replaced by a silvery band or absent)

Psalidodon goyanensis **(Miranda Ribeiro 1944)** *-ensis*, suffix denoting place: Estado do Goiás, Brazil, where type locality (rio do Couro, Veadeiros) is situated

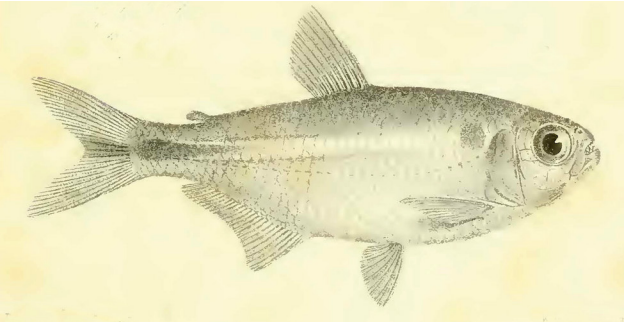
Psalidodon gymnodontus **Eigenmann 1911** *gymnós* (γυμνός), bare or naked; *odontus*, Neo-Latin scientific adjective derived from *odoús* (ὀδούς), tooth, probably referring to the absence of lips ("the teeth exposed")

Psalidodon gymnogenys **(Eigenmann 1911)** *gymnós* (γυμνός), bare or naked; *génys* (γένυς), cheek or chin, presumably referring to "naked area" on second suborbital bone

Psalidodon hamatus **(Bertaco & Malabarba 2005)** Latin for hooked, referring to hooks on all fins (except for caudal) of males

Psalidodon henseli **(de Melo & Buckup 2006)** in honor of German zoologist-paleontologist Reinhold Friedrich Hensel (1826–1881), for his contributions to ichthyology in southern Brazil (Hensel described this species in 1870 but used a preoccupied name, *Tetragonopterus aeneus*)

[5] Eigenmann, C. H. and G. S. Myers. 1929. The American Characidae [Part 5, and incl. Supplement by G. S. Myers, pp. 516–550]. Memoirs of the Museum of Comparative Zoology 43 (5): 429–558, Pls. 57, 63, 70–74, 81–83, 94.



Psalidodon jequitinhonhae. Illustration by Eduard Konopicky. From: Steindachner, F. 1877. Die Süsswasserfische des südöstlichen Brasilien (III). Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe 74 (1. Abth.): 559–694, Pls. 1–13.

***Psalidodon hermosus* (Miquelarena, Protogino & López 2005)** *-osus* (L.), adjectival suffix: referring to town of Valle Hermoso, Córdoba Province, Argentina, type locality

***Psalidodon ita* (Almirón, Azpelicueta & Casciotta 2002)** *itá*, Guaraní word meaning stone, referring to its rocky bottom habitat

***Psalidodon jequitinhonhae* (Steindachner 1877)** of the rio Jequitinhonha, Brazil, type locality

***Psalidodon kalunga* (Bertaco & Carvalho 2010)** named for Comunidade Quilombo Kalunga, descendents of African slaves who live in the upper rio Tocantins basin (Cavalcante, Teresina de Goiás, and Monte Alegre de Goiás municipalities), Goiás, Brazil, near type locality; *Kalunga*, in Bantu language, means "protected sacred place"

***Psalidodon langeanii* (Lima & Moreira 2003)** in honor of the authors' colleague, Brazilian ichthyologist Francisco Langeani Neto, who first collected this species

***Psalidodon laticeps* (Cope 1894)** *latus* (L.), broad or wide; *-ceps* (Neo-Latin), headed, presumably referring to wider "frontal region" compared with *P. fasciatus*

***Psalidodon leonidas* (Azpelicueta, Casciotta & Almirón 2002)** named for the Spartan King Leonidas (d. 480 BC), who fought a "million-man" (actually 70,000–300,000) Persian army with only 300 soldiers; this epithet is "dedicated to all the academic teachers of Argentina that stand in defense of a free and independent education"

***Psalidodon marionae* (Eigenmann 1911)** in honor of Marion Durbin Ellis (1887–ca. 1972), Eigenmann's student and "collaborator in monographing the minute" species of Tetragonopterinae (then a catch-all subfamily), and later a limnologist and environmental toxicologist, University of Missouri in Columbia

***Psalidodon minor* (Garavello & Sampaio 2010)** Latin for less, referring to its small body size compared with congeners in the Iguaçu River basin of Brazil

***Psalidodon ojiara* (Azpelicueta & Garcia 2000)** name of spirit (in Tupí-Guaraní language) that protects fresh waters

***Psalidodon paiva* Rodrigues-Oliveira, de Assis, Pimentel, Soares, Batista da Silva, Rocha, Menegidio, Pasa & Kavalco 2025** in honor of the Paiva family, whose life, portrayed in the 2024 Brazilian Oscar-winning film *Ainda Estou Aqui* (*I'm Still Here*), was "profoundly affected by the imprisonment, disappearance, and execution of the family patriarch, Rubens Paiva, during the Brazilian military dictatorship" in 1971 [a noun in apposition, without the genitive *-orum*]

***Psalidodon pampa* (Casciotta, Almirón & Azpelicueta 2005)** Quichua word for one of the aboriginal groups who lived in the plain regions of Buenos Aires (Argentina) province where this species occurs

***Psalidodon parahybae* (Eigenmann 1908)** of the rio Paraíba (spelled Parahyba by Eigenmann), Rio de Janeiro, Brazil, type locality

***Psalidodon paranae* (Eigenmann 1914)** of Paraná, Brazil, type locality

***Psalidodon pellegrini* (Eigenmann 1907)** patronym not identified, probably in honor of French ichthyologist Jacques Pellegrin (1873–1944) [spelled *pelegrini* by Eigenmann but prevailing usage favors the "corrected" spelling]

***Psalidodon pessalii* Teixeira, Salvador, Mirande & Lima 2025** in honor of fellow ichthyologist Tiago Casarim Pessali; "With the constant support of his family, he has contributed in many ways to the knowledge of the Brazilian freshwater fishes, especially those occurring in the coastal drainages of eastern Brazil in the State of Minas Gerais," where this species occurs

***Psalidodon powelli* (Terán, Butí & Mirande 2017)** in honor and memory of Jaime Eduardo Powell (1953–2016), "prominent paleontologist, dear friend, and colleague"

***Psalidodon puka* (Mirande, Aguilera & Azpelicueta 2007)** Quichua word for red, referring to its intensely red anal and caudal fins

***Psalidodon pynandi* (Casciotta, Almirón, Bechara, Roux & Ruíz Díaz 2003)** Guaraní word for people without shoes, in honor of the "'descalzos' [of Argentina] that every day struggle to recover their dignity in an unjust world"

***Psalidodon rioparanaibanus* Alves, Oliveira, Pasa & Kavalco 2020** *-anus* (L.), belonging to: municipality of Rio Paranaíba, Minas Gerais, Brazil, type locality

***Psalidodon rivularis* (Lütken 1875)** Latin for of a small brook or rivulet, allusion not explained nor evident, presumably referring to habitat of type locality

***Psalidodon rutilus* (Jenyns 1842)** Latin for red, golden red or reddish yellow, probably referring to "dirty orange" fins

***Psalidodon saguazu* (Casciotta, Almirón & Azpelicueta 2003)** from the Guaraní words *sa*, eye, and *guazú*, large, referring to its large eye, 41–45% HL

***Psalidodon santae* (Eigenmann 1907)** of Lagoa Santa, Brazil, type locality

***Psalidodon scabripinnis* (Jenyns 1842)** *scaber* (L.), rough; *pinnis*, Neo-Latin adjective of *pinna* (L.), fin, referring to rough anal-fin rays, with a "scabrous harsh feel to the touch, when the finger is passed along them from the base upwards"

***Psalidodon schubarti* (Britski 1964)** in honor of the late Otto Schubart (1900–1962), German myriapodist, Estação Experimental de Biologia e Piscicultura do Ministério de Agricultura (São Paulo, Brazil), who provided railway access for Britski's research

***Psalidodon serratus* (Garavello & Sampaio 2010)** Latin for serrated, referring to numerous fin hooks on pelvic fin of males, "resembling the profile of a serrae"

***Psalidodon terezinhae* Rodrigues-Oliveira, de Assis, Pimentel, Soares, Batista da Silva, Rocha, Menegidio, Pasa & Kavalco 2025** in honor of Terezinha Aparecida Rodrigues (1947–2015), late grandmother of the first author

***Psalidodon togoi* (Miquelarena & López 2006)** in honor of Argentine ichthyologist and friend Carlos Togo, "a great expert and pioneer of ichthyofaunal research in pampasic lagoons"

***Psalidodon troya* (Azpelicueta, Casciotta & Almirón 2002)** Spanish for Troy, named for the mythological Troy as an allusion to its original genus, *Astyanax*, named for Astyanax, one of the sons of Hector, prince of Troy

***Psalidodon tumbayaensis* (Miquelarena & Menni 2005)** *-ensis*, Latin suffix denoting place: Tumbaya village, Grande River basin, Jujuy Province, Argentina, type locality

***Psalidodon uaiso* (Carvalho & Langeani 2013)** from the Portuguese *uai sô*, a common colloquial interjection used by most people living in Minas Gerais State, Brazil, to express surprise, confirmation, awe or amazement, particularly those from the Triângulo Mineiro region, where this species is found

***Psalidodon uberaba* (Serra & Langeani 2015)** named for the head-

waters of the rio Uberaba (Minas Gerais, Brazil), only known area of occurrence

Psalidodon varzeae **(Abilhoa & Duboc 2007)** of the rio da Várzea drainage, Paraná State, Brazil, type locality

Psalidodon velhochico **Rodrigues-Oliveira, de Assis, Pimentel, Soares, Batista da Silva, Rocha, Menegidio, Pasa & Kavalco 2025** popular nickname of the São Francisco River in Brazil (where type locality is situated), affectionately called "Velho Chico" ("Old Chico") by Brazilians

Psalidodon vermilion **(Zanata & Camelier 2009)** vermilion or orange-red (derived from the Latin *vermiculus*, a small worm that yields red dye), referring to red coloration of posterior body portion in life

Psalidodon xavante **(Garutti & Venere 2009)** named for the Xavante ethnic group, who inhabit the Serra do Roncador and middle rio Araguaia, Mato Grosso, Brazil, where this species occurs

Psalidodon xiru **(Lucena, Castro & Bertaco 2013)** Tupí-Guaraní word for "an old wise Indian," an honorific used in the countryside of Rio Grande do Sul State, Brazil, where this species occurs