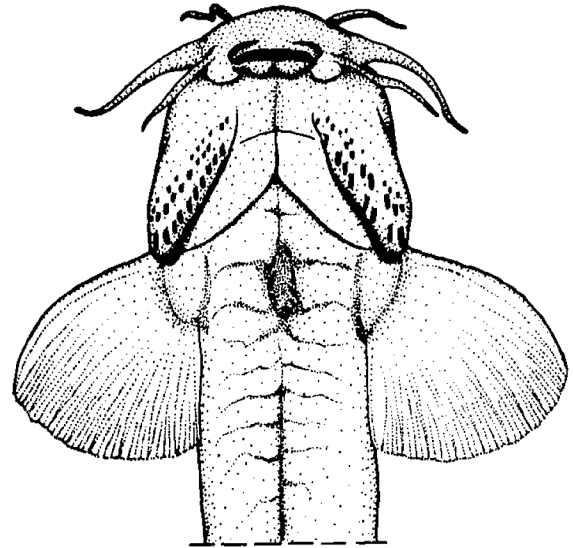
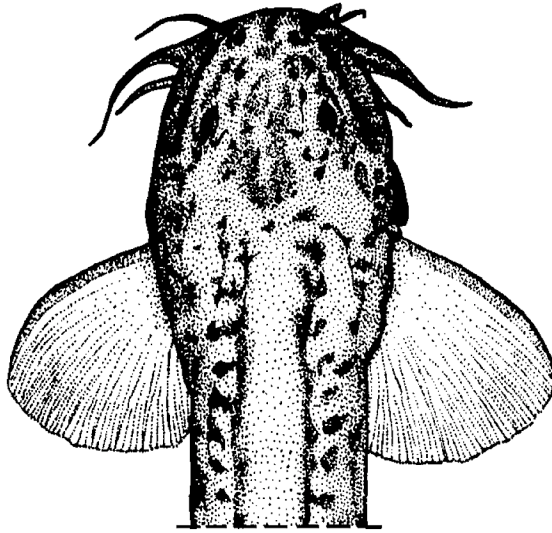


Order SILURIFORMES

Chapada Pencil Catfishes

Family **TRICHOMYCTERIDAE**

Subfamily **COPIONODONTINAE** de Pinna 1992



Copionodon pecten, holotype, 59.8 mm SL, dorsal and ventral views of head. Illustration by Mário C. C. de Pinna. From: de Pinna, M. C. C. 1992. A new subfamily of Trichomycteridae (Teleostei, Siluriformes), lower loricarioid relationships and a discussion on the impact of additional taxa for phylogenetic analysis. *Zoological Journal of the Linnean Society* 106 (3): 175–229.

Copionodon
de Pinna 1992

kōpídion (Gr. κωπίδιον), diminutive of *kōpē* (κώπη), oar; *odon*, Latinized and grammatically adjusted from the Greek nominative *ὄδους* (*odoús*), tooth, referring to paddle-shaped outer row of teeth on premaxilla and dentary

***Copionodon elysium* de Pinna, Burger & Zanata 2018** Latinization of *Ēlýsion* (Gr. Ἠλύσιον), named for the Elysean Fields of Greek mythology, a place or condition of ideal happiness or perfect bliss, alluding to its habitat (Diamantina Plateau, Bahia, Brazil), a “scenic pristine place” shared with one other fish species (*Astyanax* sp.) and no fish predators

***Copionodon exotatos* Abrahão, Reis & Zanata 2018** *exótatōs* (Gr. ἐξώτατος), outermost, referring to its outlying locality, a relictual population representing northernmost occurrence of the subfamily known to date

***Copionodon lianae* Campanario & de Pinna 2000** in honor of ichthyologist Liana Figueiredo Mendes, Universidade Federal do Rio Grande do Norte (Brazil), for collecting the only known specimens and bringing them to the authors’ attention

***Copionodon orthiocarinatus* de Pinna 1992** *orthius* (L.), high; *carinatus* (L.), keeled, referring to its “extremely large and deep” adipose fin

***Copionodon pecten* de Pinna 1992** Latin for a comb, referring to comb-like appearance of extraordinarily enlarged interopercular patch of odontodes

Glaphyropoma
de Pinna 1992

glaphyrós (Gr. γλαφυρός), hollow or hollowed (de Pinna says excavated); *pōma* (Gr. πώμα), lid or cover, i.e., opercle, referring to smooth opercular region (odontodes absent) of *G. rodriguesi* (but present in *G. spinosa*)

***Glaphyropoma rodriguesi* de Pinna 1992** in honor of Brazilian herpetologist Miguel Trefaut Rodrigues (b. 1953), Universidade de São Paulo, who, along with his students, discovered and collected first-known specimens of this subfamily from a previously unsampled high-altitude region of central north-eastern Brazil

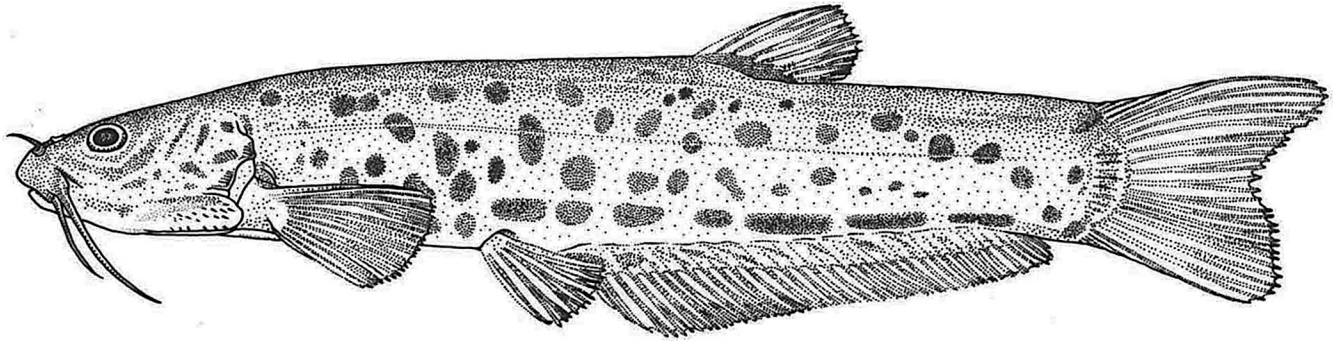
***Glaphyropoma spinosa* Bichuette, de Pinna & Trajano 2008** Latin for prickly or spiny, referring to its opercular odontodes, unique within the subfamily [originally spelled *spinosum*; emended to agree with feminine gender of genus]



Glaphyropoma spinosa, holotype, 58.2 mm SL. Photo by Eduardo Baena. From: Bichuette, M. E., M. C. C. de Pinna and E. Trajano. 2008. A new species of *Glaphyropoma*: the first subterranean copionodontine catfish and the first occurrence of opercular odontodes in the subfamily (Siluriformes: Trichomycteridae). *Neotropical Ichthyology* 6 (3): 301–306.

Order SILURIFORMES

Longfin Pencil Catfishes

Family **TRICHOMYCTERIDAE**Subfamily **TRICHOGENINAE** Isbrücker 1986

Trichomycterus longipinnis. Britski, H. A. and H. Ortega. 1983. *Trichomycterus longipinnis*, novo gênero e espécie de Trichomycterinae do sudeste do Brasil (Pisces, Siluriformes). Revista Brasileira de Zoologia 1 (3): 211–216.

Trichomycterus

Britski & Ortega 1983

combination of *tricho-* from Trichomycteridae and *-genes* from the cetopsid catfishes of *Helogenes*, referring to superficial resemblance to that genus (specifically, the long anal fin)

***Trichomycterus beagle* de Pinna, Reis & Britski 2020** named for the Laboratory of Molecular Systematics (nicknamed Beagle, after HMS *Beagle*, the ship that carried a young Charles Darwin around the world), Department of Animal Biology, Universidade Federal de Viçosa (Minas Gerais, Brazil), where the only known specimens were discovered in a freezer

***Trichomycterus claviger* de Pinna, Helmer, Britski & Nunes 2010** *clava* (L.), club; *-iger* (L.), to bear, referring to peculiar shape of hypertrophied posterior process of opercle in males

***Trichomycterus longipinnis* Britski & Ortega 1983** *longus* (L.), long; *pinnis*, Neo-Latin adjective of *pinna* (L.), fin, referring to long (>30 rays) *Helogenes*-like anal fin

The catfish discovered in a freezer

Trichomycterus beagle was discovered during a routine search for molecular samples of trichomycterid catfishes in a freezer at the Laboratory of Molecular Systematics at the Department of Animal Biology at the Universidade Federal de Viçosa in Minas Gerais, Brazil. The lab is nicknamed “Beagle,” after HMS *Beagle*, the ship that carried a young Charles Darwin around the world. The catfish is named for the lab.

The specimens were sufficiently preserved to reveal it was an undescribed species. But no one at the lab knows how the specimens got there, nor when, nor where they came from. The words “Cachoeira do Cobra” were inscribed by hand in pen on the outside of the vial, even though vials of that sort are often reused and inscriptions on their outside may bear no relation with what’s inside. Searches in gazetteers and Web resources revealed two potential candidates for a locality with that name but field trips yielded nothing. The geographical provenance of *T. beagle* remains a mystery.

It’s not unusual for a new species of fish to be described with only a vague notion of where it occurs. In the 18th-century, several fishes were described from “curio cabinets” in personal natural history collections. In the 1800s, explorers and mariners often caught fishes and donated them to the museums of their home ports, usually with only the most general (e.g., “Atlantic”) field data. And in the 20th century, many aquarium fishes were described from aquaria knowing only that they were exported from tropical lands (e.g., “Amazonia” or “Malaysia”). But in most if not all of these cases, the fishes were collected again and their geographical distributions were confirmed.

But what about fishes with no collection data, such as *T. beagle*, that have never again been seen in the wild? Have others been described? The answer is yes: *Epinephelus lebretonianus*, a grouper described in 1853 (possibly named for French botanist Manuel le Breton) known only from a single specimen of uncertain locality (although likely from the Indo-Pacific), collected during a circumglobal voyage of the corvettes *L’Astrolabe* and *La Zélée* in 1840 while attempting to find the South Pole. It’s never been seen nor collected again.

It’s called the Mystery Grouper.

Order SILURIFORMES

Pencil Catfishes

Family TRICHOMYCTERIDAE

Subfamily TRICHOMYCTERINAE Bleeker 1858



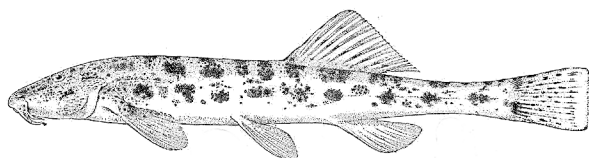
Cambeva alphabelardense, holotype, 43.4 mm SL. From: Costa, W. J. E. M., C. R. M. Feltrin and A. M. Katz. 2022. Two new remarkable and endangered catfish species of the genus *Cambeva* (Siluriformes, Trichomycteridae) from southern Brazil. *European Journal of Taxonomy* 794: 140–155.

Bullockia

Arratia, Chang, Menu-Marque & Rojas 1978

-ia (L. suffix), belonging to: Dillman Samuel Bullock (1878–1971), an American agronomist who lived in Chile and collected many Chilean fishes, including holotype of *Hatcheria bullocki* (= *B. maldonadoi*)

***Bullockia maldonadoi* (Eigenmann 1920)** in honor of Chilean agronomist and agricultural engineer Ernesto Maldonado, Inspector General de Bosques, Pesca y Caza (Forests, Fishing and Hunting), Santiago de Chile, who helped Eigenmann during his 1919 expedition to Chile



First-published image of *Bullockia maldonadoi*, holotype. Illustration by W. S. Atkinson. From: Eigenmann, C. H. 1928. The fresh-water fishes of Chile. *Memoirs of the National Academy of Sciences* 22 (2): 1#63, Pls. 1–16.

Cambeva

Katz, Barbosa, Mattos & Costa 2018

vernacular name for trichomycterids in southern and southeastern Brazil, derived from the Tupi *a'kãg*, head, and *pewa*, flat, referring to their dorsally flattened heads

***Cambeva alphabelardense* Costa, Feltrin & Katz 2022** *álpha* (ἄλφα), first letter (α) of Greek alphabet; *abelardense*, Portuguese word referring to people born in Abelardo Luz municipality (Santa Catarina State, Brazil), the first new species described from this area [see *C. betabelardense* and *C. gamabelardense*]

***Cambeva baliós* (Ferrer & Malabarba 2013)** *baliós* (Gr. βαλιός), spotted, referring to color pattern formed by circular black blotches

***Cambeva barbosa* Costa, Feltrin & Katz 2021** in honor of Brazilian ichthyologist Maria Anaís Barbosa, for her efforts to collect and study trichomycterines from Santa Catarina, Brazil, where this one occurs

***Cambeva betabelardense* Costa, Feltrin & Katz 2022** *béta* (βῆτα), second letter (β) of Greek alphabet; *abelardense*, Portuguese word referring to people born in Abelardo Luz municipality (Santa Catarina State, Brazil), the second new species described from this area [see *C. alphabelardense* and *C. gamabelardense*]

***Cambeva biseriata* Costa, Feltrin, Mattos, Dalcin, Abilhoa & Katz 2023** *bi-*, from *bis* (L.), twice; *seriata* (L.), in a row, referring to two longitudinal series of brown spots on the flank

***Cambeva botuvera* Costa, Feltrin & Katz 2021** named for the municipality of Botuverá, Santa Catarina, Brazil, where type locality (village of Ourinhos) is situated (name derived from the Tupí-Guaraní, possibly meaning “brilliant mountain”)

***Cambeva brachykechenos* (Ferrer & Malabarba 2013)** *brachýs* (Gr. βραχύς), short; *kechēnós* (Gr. κηηνώς), yawn or gape (authors say gap or opening), referring to its short posterior cranial fontanel

***Cambeva castroi* (de Pinna 1992)** in honor of Brazilian ichthyologist Ricardo Macedo Corrêa e Castro, Universidade de São Paulo, who collected types and made them available for study, and for his “stimulating enthusiasm” for the study of neotropical freshwater fishes

***Cambeva cauim* Reis, Ferrer & da Graça 2021** named for *cauim*, a traditional alcoholic drink made from fermented manioc or maize consumed by the *caingangues* Indians, who lived along the margins of the Rio Iguazu, Paraná State, Brazil, where type locality is situated

***Cambeva chrysornata* Costa, Feltrin, Mattos, Dalcin, Abilhoa & Katz 2023** *chrysós* (Gr. χρυσός), gold; *ornata* (L.), ornate or embellished, referring to characteristic bright-yellow marks on sides

***Cambeva concolor* (Costa 1992)** Latin for colored uniformly, referring to its uniform plain-yellow coloration

***Cambeva crassicaudata* (Wosiacki & de Pinna 2008)** *crassus* (L.), thick or wide; *caudata* (L.), tailed, referring to deep caudal peduncle, giving it a unique shape among trichomycterids

***Cambeva cubataonis* (Bizerril 1994)** -is, Latin genitive singular of: Rio Cubatão, Joinville, Estado de Santa Catarina, Brazil, type locality

***Cambeva davisí* (Haseman 1911)** in honor of “Dr. Davis,” possibly Walter Gould Davis (1851–1919), Argentine Meteorological Service, “who in various ways” assisted Haseman during the latter part of his collecting trip to South America

***Cambeva diabola* (Bockmann, Casatti & de Pinna 2004)** Latin for of the devil, named for Morro do Diabo State Park (São Paulo, Brazil), type locality; according to local lore, the name refers to natives who formerly inhabited the region and were reputed to have killed European invaders

***Cambeva diatropoporos* (Ferrer & Malabarba 2013)** *diátropos* (Gr. διάτροπος), variable; *póros* (Gr. πόρος), hole or passage, referring to variable presence of pores along infraorbital sensory canal among specimens

***Cambeva diffusa* Costa, Feltrin & Katz 2021** Latin for spread abroad, extended or wide (i.e., diffuse), referring to its color pattern, with dif-

fuse gray spots in a deeper skin layer, overlapped by minute brownish grey dots, conferring a general coloration that is lighter than that of closely related congeners

***Cambeva duplimaculata* Costa, Felktrin & Katz 2021** *diplo-*, from *diploós* (Gr. διπλόος) or *diploús* (διπλοῦς), twofold or double; *maculatus* (L.), spotted, referring to color pattern on sides, consisting of two overlapped spotted patterns in different skin layers, comprising inner large black spots and outer small brown spots

***Cambeva flavopicta* Costa, Feltrin & Katz 2020** *flavus* (L.), yellow; *picta* (L.), painted, referring to characteristic yellow marks over a dark-brown ground

***Cambeva gamabelardense* Costa, Feltrin & Katz 2022** *gamma* (γάμμα), third letter (γ) of Greek alphabet; *abelardense*, Portuguese word referring to people born in Abelardo Luz municipality (Santa Catarina, Brazil), i.e., the third new species of *Cambeva* known to occur in this area [see *C. alphabelardense* and *C. betabelardense*]

***Cambeva grisea* Costa, Felktrin & Katz 2021** Medieval Latin for gray, referring to its predominant body color

***Cambeva guaraquessaba* (Wosiacki 2005)** derived from Município de Guaraqueçaba, Paraná State, Brazil, where it occurs

***Cambeva guaratuba* Costa, Feltrin, Mattos, Dalcin, Abilhoa & Katz 2023** named for the Baía de Guaratuba system, Guaratuba Municipality, Paraná State, Brazil, where type locality (rio Imbira) is situated; from the Tupi-Guarani *guara* (local name of the bird *Eudocimus ruber*) and *tuba* (numerous), i.e., a place inhabited by numerous birds of this species

***Cambeva guareiensis* Katz & Costa 2020** *-ensis*, Latin suffix denoting place: rio Guareí drainage, Angatuba, São Paulo, Brazil, type locality

***Cambeva horacioi* Reis, Frota, Fabrin & Graça 2019** in honor of Horácio Ferreira Júlio Júnior, a “great friend” and one of the mentors of the Núcleo de Pesquisas em Limnologia, Ictiologia e Aquicultura, for his contributions in cytogenetics and ecology of fishes from rio Paraná basin, Paraná State, Brazil (where this catfish occurs)

***Cambeva igobi* (Wosiacki & de Pinna 2008)** named for Igobi, a tribal chief and father of Naipí in Tupí-Guaraní mythology involved in the legend of the origin of the Iguazu waterfalls (Paraná, Brazil), near where this catfish occurs [see *C. naipi* for full story]

***Cambeva iheringi* (Eigenmann 1917)** in honor of Rodolpho von Ihering (1883–1939), zoologist and fish culturist, who collected part of the type series

***Cambeva imaruhy* Costa, Felktrin & Katz 2021** named for its occurrence in the Caminho dos Tropeiros da Serra do Imaruí (formerly Imaruhy), Santa Catarina, Brazil

***Cambeva longipalata* Costa, Felktrin & Katz 2021** *longus* (L.), long; *palata*, nominative plural of *palatum* (L.), palate, but apparently used here as an adjective, referring to the “peculiar” morphology of its autopalatine, with a long posterolateral process

***Cambeva mboyacy* (Wosiacki & Garavello 2004)** named for *M'Boy cy*, a character in Tupí-Guaraní mythology involved in the legend of the origin of the Iguazu waterfalls (Paraná, Brazil), near where this catfish occurs

***Cambeva melanoptera* Costa, Abilhoa, Dalcin & Katz 2022** black-finned, from *mélanos* (Gr. μέλανος), genitive of *mélas* (μέλας), black, and *ptera*, from *pterón* (Gr. πτερόν) or *ptéryx* (πτέρυξ), wing or fin, referring to broad distal black zone in all unpaired and pectoral fins

***Cambeva naipi* (Wosiacki & Garavello 2004)** named for Naipí, a beautiful young maiden, referring to a legend of the Kaingang people, the first inhabitants of the present-day province of Misiones in Argentina, particularly the rio Iguazú basin (which includes Paraná, Brazil, near where this catfish occurs); according to the legend, Naipí and Tarobá, a warrior, angered Mboi, the guardian god of the rio Iguazú, who created the falls to capture the lovers, transforming Naipí into one of the rocks of the falls, perpetually punished by its turbulent waters, and Tarobá into a palm tree on the bank, where, on sunny days, a rainbow

overcomes the power of Mboi and serves as a bridge of love connecting Naipí and Tarobá

***Cambeva notabilis* Costa, Felktrin & Katz 2021** Latin for notable, referring to its “unique” coloration, with a black stripe along sides interrupted in larger specimens, forming a distinctive series of horizontally elongated black spots

***Cambeva orbitofrontalis* Costa, Felktrin & Katz 2021** *orbita* (L.), orbit (i.e., eye socket); *frontalis* (Neo-Latin), frontal, referring to its unique long sesamoid supraorbital bone, with posterior extremity firmly attached to the frontal bone

***Cambeva panthera* Costa, Felktrin & Katz 2021** Latin for panther, referring to the panther-like color pattern of larger specimens

***Cambeva paolence* (Eigenmann 1917)** etymology not explained; appears to be a variant or misspelling of *-ense*, Latin suffix denoting place, possibly referring to São Paulo State, Brazil, where it is endemic to the rio Paraná basin

***Cambeva papillifera* (Wosiacki & Garavello 2004)** *papilla* (L.), bud; *fera* (L.), bearing or carrying, referring to large papillae on ventral surface of head and rictal barbels

***Cambeva pascuali* (Ochoa, Silva, Costa e Silva, Oliveira & Datovo 2017)** in honor of José Pascual Ochoa, the first author's father

***Cambeva pericoh* Costa, Felktrin & Katz 2021** named for the rio Pericó, rio Pelotas drainage, Santa Catarina, Brazil, type locality [the addition of the “h” is not explained]

***Cambeva perkos* (Datovo, Carvalho & Ferrer 2012)** *pérkos* (Gr. πέρκος), spotted or streaked with black marks, referring to color pattern formed by either dark stripes (small-sized specimens) or dark stripes combined with small spots (larger individuals)

***Cambeva piraquara* Reis, Wosiacki, Ferrer, Donin & Graça 2023** Tupí word meaning “fish hole” (*pirá*, fish; *kúara*, hole, cave, cavity or hiding place), referring to rio Piraquara, Paraná State, Brazil, type locality

***Cambeva plumbea* (Wosiacki & Garavello 2004)** Latin for of or pertaining to lead, i.e., lead-colored, referring to its grayish color

***Cambeva podostemophila* Costa, Feltrin & Katz 2023** *phila*, from *phílos* (Gr. φίλος), fond of: *Podostemum rutifolium*, an aquatic plant in whose dense mats this catfish occurs

***Cambeva poikilos* (Ferrer & Malabarba 2013)** *poikílos* (Gr. ποικίλος), mottled or varicolored, referring to its intraspecific ontogenetic color-pattern variation

***Cambeva stawiarski* (Miranda Ribeiro 1968)** in honor of Victor Stawiarski (1903–1979), Director da Divisão de Extensão Cultural do Museu Nacional (Rio de Janeiro, Brazil), who collected holotype

***Cambeva taroba* (Wosiacki & Garavello 2004)** named for Tarobá, a warrior involved in the legend of the origin of the Iguazu waterfalls (Paraná, Brazil), near where this catfish occurs [see *C. naipi* for full story]

***Cambeva tourensis* Costa, Feltrin & Katz 2023** *-ensis*, Latin suffix denoting place: Rio dos Touros, Rio Grande do Sul, Brazil, only known area of occurrence

***Cambeva tropeiro* (Ferrer & Malabarba 2011)** Portuguese for drover, named for the old drovers' paths that connected the States of Rio Grande do Sul and São Paulo, and crossed the Municipalities of São José dos Ausentes and Cambará do Sul, where this catfish occurs

***Cambeva tupinamba* (Wosiacki & Oyakawa 2005)** named for the indigenous tribe who lived in the eastern region of São Paulo State (Brazil), where this catfish occurs, in the 16th and early 17th centuries; *Tupinamba*, in Tupí language, means first or ancient, further reflecting its presumed basal relationship among congeners

***Cambeva urubici* Costa, Felktrin & Katz 2021** named for the rio Urubici, rio Uruguai basin, Santa Catarina, Brazil, type locality

***Cambeva variegata* (Costa 1992)** Latin for “of different sorts” (particularly colors), referring to its variegated color pattern

***Cambeva ventropapillata* Costa, Feltrin, Mattos, Dalcin, Abilhoa & Katz 2023** *ventro-*, from *venter* (L.), belly; *papillata* (L.), with nipples or buds, referring to well-developed papillae on ventral surface of head

***Cambeva ytororo* (Terán, Ferrer, Benitez, Alonso, Aguilera & Miranda 2017)** indigenous Guaraní word meaning waterfall, referring to its habitat

***Cambeva zonata* (Eigenmann 1918)** Latin for banded, referring to five obscure bars across back in front of dorsal fin and three similar bars behind it

Eremophilus

Humboldt 1805

erēmos (Gr. ἐρήμος), solitary or lonely; *philus*, from *philos* (Gr. φίλος), fond of, referring to “solitude in which it lives at such great heights [Bogotá, Colombia, elevation ~2640 m], and in waters that are hardly inhabited by any other living being” (translation)

***Eremophilus mutisii* Humboldt 1805** in honor of Spanish priest, botanist and mathematician José Celestino Mutis (1732–1808), “the famous naturalist whose rich collections are preserved in the great valley of Bogotá” (translation)



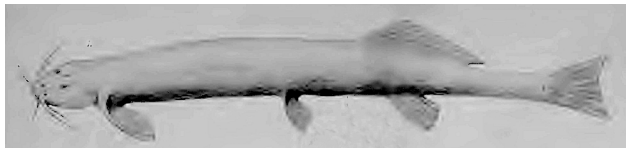
Eremophilus mutisii. From: Humboldt, F. H. A. von. 1805. Mémoire sur l'*Eremophilus* et *Astroblepus*, deux nouveaux genres de l'ordre des apodes. In: Voyage de Humboldt et Bonpland, Deuxième partie. Observations de Zoologie et d'Anatomie comparée. Paris. v. 1: 17–20, Pls. 6–7.

Hatcheria

Eigenmann 1909

-ia (L. suffix), belonging to: American paleontologist John Bell Hatcher (1861–1904), who collected many of the Patagonian fishes that Eigenmann described

***Hatcheria macraei* (Girard 1855)** in honor of Lieut. Archibald MacRae (1820–1855), part of the U.S. Naval Astronomical Expedition to the Southern Hemisphere (1849–1852), who collected holotype



Possibly first-published image of *Hatcheria macraei* (as *Pygidium burmeisteri*, a junior synonym). Illustration by F. Burmeister. From: Berg, C. 1855. Sobre peces de agua dulce nuevos ó poco conocidos de la República Argentina. Anales del Museo Nacional de Historia Natural de Buenos Aires 4: 121–165, Pls. 2–3. [Sorry for poor quality.]

Ituglanis

Costa & Bockmann 1993

itu, Tupí-Guaraní word for waterfall, referring to presence of some species in torrential waters; *glánis* (Gr. γλάνις), ancient name for a silurid catfish (probably *Silurus aristotelis*) dating to Aristotle, often used as a general term for catfish

***Ituglanis agreste* Lima, Neves & Campos-Paiva 2013**

Latin for rustic, referring to semi-humid narrow strip parallel to coast in northeastern Brazil, encompassing area between Rio Grande do Norte State to middle section of rio de Contas basin in Bahia State, marking transition between two distinct biomes, the Atlantic Forest and the semi-arid Caatinga, where this catfish occurs

***Ituglanis amazonicus* (Steindachner 1882) -icus** (L.), belonging to: Amazon River basin of Brazil, type locality

***Ituglanis amphipotamus* Mendonça, Oyakawa & Wosiacki 2018** *amphi-*, double; *potamus*, river or stream, referring to its occurrence in two river basins: Rio Ribeira de Iguape and upper Rio Tietê basins, southeastern Brazil

***Ituglanis apteryx* Datovo 2014** *a-* (ἀ), Greek privative, i.e., not; *ptéryx* (Gr. πτέρυξ), wing or fin, referring to absence of pelvic fins

***Ituglanis australis* Datovo & de Pinna 2014** Latin for southern, representing the southernmost record of the genus

***Ituglanis bambui* Bichuette & Trajano 2004** named for the Bambuí Group, the carbonate geological unit where this subterranean species occurs; name also honors Grupo Bambuí de Pesquisas Espeleológicas, for contributions to Brazilian speleology

***Ituglanis boitata* Ferrer, Donin & Malabarba 2015** from the Tupí-Guaraní *boi*, snake, and *tata*, fire, referring to its orangish coloration and snake-like swimming behavior (the “Boitata” snake is part of several fictitious tales in the Brazilian culture popularized in Rio Grande do Sul by the writer Simões Lopes Neto)

***Ituglanis boticario* Rizzato & Bichuette 2015** named for Fundação O Boticário de Proteção à Natureza (FBPN), which financially supported the protection of the Tarimba cave system (Goiás State, Brazil), one of two cave systems in which this catfish is known to occur

***Ituglanis cahyensis* Sarmento-Soares, Martins-Pinheiro, Aranda & Chamon 2006** *-ensis*, Latin suffix denoting place: rio Cahy, a small coastal river drainage (Bahia State, Brazil), near the point where the Portuguese navigator Pedro Alvarez Cabral and his fleet landed in Brazil for the first time in the year 1500

***Ituglanis compactus* Silva Castro & Wosiacki 2017** Latin for compact (i.e., small), referring to small body size and reduced number of internal and external characters (e.g., post-Weberian apparatus vertebrae, paired ribs, interopercular odontodes) compared with larger congeners

***Ituglanis crispim* Donin, de Pinna, Severi & Ramos 2023** named for Crispim, also known as Cabeça de Cuia (gourd head), a legendary creature with a gigantic bowl-shaped head said to attack fishermen along the banks of the rio Parnaíba in Piauí State, Brazil, where this catfish occurs (*cuia* is a hard-shelled fruit with a gourd-like shape whose dried shell is used as bowls) [see also *Paratocinclus cabessadecuia*, Loricariidae: Hypoptopomatinae]

***Ituglanis eichhorniarum* (Miranda Ribeiro 1912) -um** (L.), adjectival suffix: named for the water hyacinth *Eichhornia azurea*, between the pseudorhizomes of which the types were caught [originally spelled with one *h*; since name is based on a previously described taxon, spelling is deemed an inadvertent error and allowed to be corrected per ICZN 32.5.1]

***Ituglanis epikarsticus* Bichuette & Trajano 2004** *-icus* (L.), belonging to: epikarst, the kind of aquifer where this subterranean species occurs

***Ituglanis goya* Datovo, Aquino & Langeani 2016** named for the Goyá, “an enigmatic and pacific indigenous group that supposedly inhabited the region of the modern state of Goiás in central Brazil,” where this catfish occurs; the “Goyá were utterly exterminated by the XVIII century by the first Bandeirantes explorers from southeastern Brazil”

***Ituglanis gracilior* (Eigenmann 1912)** comparative of *gracilis* (L.), thin or slender, referring to its body shape

***Ituglanis guayaberensis* (Dahl 1960) -ensis**, Latin suffix denoting place: Guayabero River basin, Orinoco River drainage, Colombia, where it is endemic

***Ituglanis herberti* (Miranda Ribeiro 1940)** in honor of Brazilian acarologist-ornithologist Herbert F. Berla (1912–1985), who collected holotype

***Ituglanis ina* Wosiacki, Dutra & Mendonça 2012** *inã*, person, a self-designation of the Karajás (Çarajás) indigenous people who inhabit the Serra dos Carajás (State of Pará, Brazil), where this catfish occurs



Ituglanis herberti. From: Miranda Ribeiro, P. de. 1940. Alguns peixes do sul de Mato Grosso. O Campo Rio de Janeiro No. 60: 1 p.

***Ituglanis inusitatus* Ferrer & Donin 2017** Latin for unusual or uncommon (rare), referring to its recent discovery using electrofishing gear, an effective method for capturing benthic species in hidden places

***Ituglanis laticeps* (Kner 1863)** *latus* (L.) wide; *-ceps* (Neo-Latin), headed, referring to its very depressed, almost quadrilateral, head

***Ituglanis macunaíma* Datovo & Landim 2005** from the modernist Brazilian novel by Mário de Andrade (1893–1945), *Macunaíma: o herói sem nenhum caráter* (1928), meaning “hero without any character,” referring to the absence of any exclusive (taxonomic) character for the new species; Andrade’s Macunaíma, based in folk Amazonian Indian myth, presents infantile features, an allusion to the paedomorphic characters of this catfish

***Ituglanis mambai* Bichuette & Trajano 2008** named for the karst region, Mambai (State of Goiás, Brazil), where this subterranean species occurs

***Ituglanis metae* (Eigenmann 1917)** of the Río Meta, Barrigona, Colombia, presumably the type locality

***Ituglanis nebulosus* de Pinna & Keith 2003** Latin for cloudy or misty, referring to its integumentary pigmentation pattern

***Ituglanis paraguassuensis* Campos-Paiva & Costa 2007** *-ensis*, Latin suffix denoting place: rio Paraguaçu, Bahia State, Brazil, type locality

***Ituglanis parahybae* (Eigenmann 1918)** of Rio Parahyba at São João da Barra, Brazil, type locality

***Ituglanis parkoi* (Miranda Ribeiro 1944)** in honor of Polish amateur naturalist Alexandre Parko, who collected specimens for Museu Nacional, Rio de Janeiro, including holotype of this catfish

***Ituglanis passensis* Fernández & Bichuette 2002** *-ensis*, Latin suffix denoting place: Passa Três cave, São Domingos, Goiás, Brazil, only known area of occurrence

***Ituglanis payaya* (Sarmiento-Soares, Zanata & Martins-Pinheiro 2011)** named for the Payayá, an indigenous people who inhabited area south of the rio São Francisco, between upper rio Itapicuru and rio Paraguassu valleys to the Recôncavo Baiano, in northern Bahia State until the 18th century; their descendants nowadays inhabit the region of the Chapada Diamantina, where this catfish occurs

***Ituglanis proops* (Miranda Ribeiro 1908)** *pro-* (L.), forward or in front of; *ôps* (Gr. ὤψ), eye, referring to forward placement of eyes, close to the posterior nares

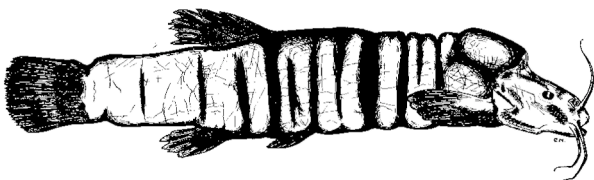
***Ituglanis ramiroi* Bichuette & Trajano 2004** in honor of Ramiro Hilário dos Santos, local inhabitant and guide in Terra Ronca State Park (Goiás, Brazil), who discovered this subterranean species and is an enthusiastic supporter of the protection of caves in the area

Rhizosomichthys

Miles 1943

etymology not explained, presumably *rhizōma* (Gr. ῥίζωμα), a “mass of roots” (i.e., rhizome), and *sōma* (Gr. σῶμα), body, possibly referring to how this catfish’s unusual body, surrounded by rings of adipose tissue, resembles the rhizome of ginger, turmeric or some other rhizomatous plant; *ichthýs* (Gr. ἰχθύς), fish

***Rhizosomichthys totae* (Miles 1942)** of Lago de Tota, Colombia, the only place this catfish, presumed extinct (last seen in 1957), was known to occur



Rhizosomichthys totae. Illustration by Cecil Miles. From: Miles, C. 1942. Descripción sistemática del “pez graso” del Lago de Tota (Boyacá). Caldasia No. 5: 55–58.

Scleronema

Eigenmann 1917

sclero-, from *sklēros* (Gr. σκληρός), tough or hard; *nēma* (Gr. νῆμα), thread, referring to large osseous base of maxillary barbel of *S. operculatum*

Subgenus Scleronema

***Scleronema carijo* Bockmann, Ferrer, Rizzato, Esguícero, Duboc & Ingenito 2023** named for the Guarani Carijó indigenous people, who lived in the region where this catfish occurs in the early 16th century, at the time of the Portuguese occupation

***Scleronema guapa* Ferrer & Malabarba 2020** Spanish for beautiful, used in southern Brazil to describe a beautiful person, referring to the “beauty” of this catfish

***Scleronema ibirapuita* Ferrer & Malabarba 2020** named for the Conservation Unit “Área de Proteção Ambiental Ibirapuitã,” where type locality (Santana do Livramento, Rio Grande do Sul, Brazil) is situated

***Scleronema macanuda* Ferrer & Malabarba 2020** *macanuda*, a regional (Atlantic coastal drainages along Brazil and Uruguay border) adjective to describe a large and strong person, referring to its being the largest species of the genus

***Scleronema mate* Ferrer & Malabarba 2020** *mate*, a popular herbal infusion in a traditional drink (*chimarrão*) from southern Brazil, Argentina and Uruguay, referring to type locality (Venâncio Aires, Rio Grande do Sul, Brazil), known as the “Terra do Chimarrão”

***Scleronema milonga* Ferrer & Malabarba 2020** *milonga*, a musical rhythm popularized in Argentina and Rio Grande do Sul (Brazil), both regions where this catfish can be found

***Scleronema minutum* (Boulenger 1891)** Latin for very small, referring to small size (for a *Trichomycterus*, its original genus), up to 40 mm

***Scleronema operculatum* Eigenmann 1917** Latin for operculate, allusion not explained, probably referring to opercular flap nearly reaching base of last pectoral-fin ray

***Scleronema teiniagua* Ferrer & Malabarba 2020** named for Teiniaguá, a character in “Salamanca do Jarau,” a fictional tale popularized in Rio Grande do Sul, Brazil, by the writer Simões Lopes Neto in 1913; in this story, Teiniaguá was a princess transformed to a witch who lives in a cave at the hill “Cerro do Jarau,” within the area where this catfish occurs



Scleronema teiniagua. Photo by Sebastián Serra. From: Ferrer, J. and L. R. Malabarba. 2020. Systematic revision of the neotropical catfish genus *Scleronema* (Siluriformes: Trichomycteridae), with descriptions of six new species from Pampa grasslands. Neotropical Ichthyology 18 (2): e190081: 1–81.

Subgenus Plesioscleronema

Costa, Sampaio, Giongo, Almeida, Azevedo-Santos & Katz 2022 *plēsios* (Gr. πλῆσιος), near, root word of plesiomorph, i.e., a primitive character state, referring to several primitive diagnostic character states relative to the derived conditions occurring within this subgenus

***Scleronema auromaculatum* Costa, Sampaio, Giongo, Almeida, Azevedo-Santos & Katz 2022** *auro-*, from *aurum* (L.), gold; *maculatum* (L.), spotted, referring to longitudinal row of golden spots along dorsal part of flank between nape and anterior portion of caudal peduncle

Silvinichthys

Arratia 1998

in honor of Argentinian zoologist Silvina Menu-Marque, who collected many trichomycterids; *ichthýs* (Gr. ἰχθύς), fish

***Silvinichthys bortayro* Fernández & de Pinna 2005** in honor of Argentinian biologist Gonzalo Padilla Bortayro, who first collected this species and brought it to the authors’ attention [a noun in apposition, without the patronymic “’”]



Silvinichthys pachonensis, holotype, 58.2 mm SL. From: Fernández, L. and J. Liotta. 2016. *Silvinichthys pachonensis*, a new catfish from high altitude, with a key to the species of the genus (Siluriformes: Trichomycteridae). *Ichthyological Exploration of Freshwaters* 27 (4): 375–383.

Silvinichthys gualcamayo Fernández, Sanabria & Quiroga 2013 named for Río Gualcamayo, Andean cordillera of San Juan, Argentina, type locality

Silvinichthys huachi Fernández, Sanabria, Quiroga & Vari 2014 named for Río Huertas de Huachi, Provincia de San Juan, Argentina, type locality

Silvinichthys leoncitisensis Fernández, Dominino, Brancolini & Baigún 2011 -ensis, Latin suffix denoting place: Leoncito National Park, Argentina, type locality

Silvinichthys mendozensis (Arratia, Chang G., Menu-Marque & Rojas M. 1978) -ensis, Latin suffix denoting place: Mendoza Province, Argentina, type locality

Silvinichthys pachonensis Fernández & Liotta 2016 -ensis, Latin suffix denoting place: Pachón, Provincia de San Juan, Argentina, type locality

Silvinichthys pedernalensis Fernández, Sanabria & Quiroga 2017 -ensis, Latin suffix denoting place: Río Pedernal, Departamento Sarmiento, Argentina, type locality

Trichomycterus Valenciennes 1832

trichós (Gr. τριχός), genitive singular of *thrix* (θρίξ), hair; *mycterus*, from *myktēr* (Gr. μυκτήρ), nostril, presumably referring to very short barbels of *T. nigricans*

Subgenus *Trichomycterus*

Trichomycterus caipora Lima, Lazzarotto & Costa 2008 from *kaa'pōra*, a forest-dwelling creature in Tupí mythology, a protector of wildlife with orange hair, referring to this catfish's endemic distribution in the Atlantic Rain Forest and its orangish-yellow head

Trichomycterus florensis (Miranda Ribeiro 1943) -ensis, Latin suffix denoting place: Rio das Flores, near Ipiabas, Estado do Rio de Janeiro, Brazil, type locality

Trichomycterus maculosus Barbosa & Costa 2010 Latin for dappled or spotted, referring to dark gray row of blotches horizontally elongated along lateral midline of body

Trichomycterus mutabilicolor Costa 2022 *mutabilis* (L.), changeable, referring to its "striking" ontogenetic coloration change (small specimens with a black longitudinal stripe over a pale-brown ground color; larger specimens with small dark-brown spots scattered over a pale-yellow ground color)



Trichomycterus mutabilicolor, two specimens illustrating ontogenetic color change. Above: paratype, 37.3 mm SL. Below: holotype, 82.6 mm SL. From: Costa, W. J. E. M., J. L. O. Mattos, S. Lopes, P. F. Amorim and A. M. Katz. 2022. Integrative taxonomy, distribution and ontogenetic coloration change in neotropical mountain catfishes of the *Trichomycterus nigroauratus* group (Siluriformes: Trichomycteridae). *Zoological Studies* 61 (11): 1–13.

Trichomycterus nigricans Valenciennes 1832 Latin for swarthy or blackish, referring to its uniform black coloration

Trichomycterus nigroauratus Barbosa & Costa 2008 *nigro-*, from *niger* (L.), dark or black; *auratus* (L.), gilded, referring to black stripe along lateral midline and golden spots on snout and body

Trichomycterus quintus Costa 2020 Latin for fifth, being the fifth species of *Trichomycterus* reported from the upper rio Preto drainage of southeastern Brazil

Trichomycterus santaeritae (Eigenmann 1918) of Santa Rita, Paraíba, Brazil, type locality

Subgenus *Cryptocambeva* Costa 2021

cryptos, from *kryptós* (Gr. κρυπτός), hidden, referring to their cryptic habits during daylight collections; *cambeva*, vernacular name for trichomycterids in southern and southeastern Brazil, derived from the Tupí *a'kãg*, head, and *pewa*, flat, referring dorsally flattened head

Trichomycterus araxa Costa, Mattos, Sampaio, Giongo, Almeida & Katz 2022 named for Araxá Municipality, Minas Gerais, Brazil, where type locality is situated

Trichomycterus argos Lezama, Triques & Santos 2012 *Árgos* (Gr. ἄργος), a hundred-eyed monster in Greek mythology, referring to its "eye-spotted" color pattern

Trichomycterus brasiliensis Lütken 1874 -ensis, Latin suffix denoting place: described from Rio das Velhas, Minas Gerais State, Brazil

Trichomycterus brunoi Barbosa & Costa 2010 in honor of herpetologist Bruno Bove de Costa (the junior author's son), for "valuable" help in collecting *Trichomycterus* and observations in the field

Trichomycterus candidus (Miranda Ribeiro 1949) Latinization of *Cândido*, in honor of Brazilian entomologist José Cândido de Melo Carvalho (1914–1994), who collected holotype

Trichomycterus claudiae Barbosa & Costa 2010 in honor of botanist Claudia Petean Bove (b. 1961), the junior author's wife, for help and companionship during trip that collected holotype and many other collecting trips during the last 18 years

Trichomycterus fuliginosus Barbosa & Costa 2010 Latin for sooty, referring to its color pattern

Trichomycterus garbei Costa, Azevedo-Santos & Katz 2023 in honor of Garman naturalist Ernst Garbe (1853–1925), who, between 1882 and the period just before his death, travelled through several Brazilian regions, including the Rio Grande drainage (where this catfish occurs), making a "rich" biological collection; he collected the type specimens of *Imparfinis longicauda* (Heptapteridae) at the type locality of this catfish

Trichomycterus listruoides Costa, Katz & Azevedo-Santos 2023 -oides, Neo-Latin from *éidos* (Gr. εἶδος), having the form of: superficially similar to the genus *Listrura* (Microcambevininae), including an elongate body, a rounded caudal fin that is continuous with the caudal peduncle forming a spatula-shaped tail, and an absence of pelvic fin and girdle

Trichomycterus macrotrichopterus Barbosa & Costa 2010 *macro-*, from *makrós* (Gr. μακρός), long or large; *trichós* (Gr. τριχός), genitive singular of *thrix* (θρίξ), hair; *pterus*, from *pterón* (Gr. πτερόν) or *ptéryx* (πτερυξ), fin, referring to its long pectoral-fin filament

Trichomycterus maracaya Bockmann & Sazima 2004 Tupí-Guaraní name for the Margay Wild Cat, *Leopardus wiedii*, referring both blotched pigmentation pattern and its predatory habits on vertebrates (tadpoles)

Trichomycterus mariamole Barbosa & Costa 2010 local name for this catfish at type locality (Município de Resende, Estado do Rio de Janeiro, Brazil)

Trichomycterus mimonha Costa 1992 local name for this catfish in the village of Piquete (Estado de São Paulo, Brazil), probably derived from the Tupí-Guaraní, its meaning unknown

***Trichomycterus mirissumba* Costa 1992** local name for this catfish in the village of Maromba (Estado do Rio de Janeiro, Brazil), probably derived from the Tupí-Guaraní, its meaning unknown

***Trichomycterus novalimensis* Barbosa & Costa 2010** *-ensis*, Latin suffix denoting place: Município de Nova Lima, Estado de Minas Gerais, Brazil, type locality

***Trichomycterus pirabitira* Barbosa & Azevedo-Santos 2012** combination of the Tupí words *pira*, fish, and *ybytyra*, mountain, referring to the “peculiar habit” (habitat?) of the genus, whose members usually inhabit mountainous regions

***Trichomycterus potschi* Barbosa & Costa 2003** in honor of Brazilian herpetologist Sérgio Pötsch, who first collected this species

***Trichomycterus rubiginosus* Barbosa & Costa 2010** Latin for rusty, referring to its predominant red or rusty color

***Trichomycterus saturatus* Costa, Katz & Azevedo-Santos 2023** Latin for saturated, referring to its color pattern consisting of numerous dark-brown dots concentrated over the whole flank, making the interspaces smaller than the areas occupied by overlapped dots

***Trichomycterus uberabensis* Costa, Azevedo-Santos & Katz 2023** *-ensis*, Latin suffix denoting place: Rio Uberaba drainage (Minas Gerais State, Brazil), where it occurs

***Trichomycterus vermiculatus* (Eigenmann 1917)** Latin for vermiculate (with wavy lines and markings), referring to “irregular vermiculations” on sides and back

Subgenus *Humboldtglanis* Costa 2021

in honor of Prussian geographer-naturalist Alexander von Humboldt (1769–1859), for his “valuable and pioneering contribution in studies on distribution, ecology, and conservation of mountain organisms,” alluding to occurrence in mountain rivers 1000 m above sea level; *glánis* (Gr. γλάνης), ancient name for a silurid catfish (probably *Silurus aristotelis*) dating to Aristotle, often used as a general term for catfish

***Trichomycterus albinotatus* Costa 1992** *albus* (L.), white; *notatus* (L.), marked, referring to white marks on upper body

***Trichomycterus vitalbrazili* Vilardo, Katz & Costa 2020** in honor of Vital Brazil Mineiro da Campanha (1865–1950), an “important” Brazilian biomedical scientist who first discovered the polyvalent anti-ophidic serum, successfully used to treat venomous snake bites, and founded the Vital Brazil Institute, through whose campus the type locality (mountain stream tributary to the Rio Grande drainage) flows

Subgenus *Megacambeva* Costa 2021

mégas (Gr. μέγας), big, referring to large size of *T. giganteus*; *cambeva*, vernacular name for trichomycterids in southern and southeastern Brazil, derived from the Tupí *a'käg*, head, and *pewa*, flat, referring to their dorsally flattened heads

***Trichomycterus giganteus* Lima & Costa 2004** Latin for gigantic, referring to its large size (up to 204 mm SL), the biggest among congeners in southeastern Brazil

Subgenus *Paracambeva* Costa 2021

para- (Gr. παρά), near, referring to superficial resemblance to some species of *Cambeva* (e.g., *Cambeva poikilos*)

***Trichomycterus adautoleitei* Costa, Azevedo-Santos & Katz 2023** in honor of Antônio Adauto Leite (1927–2020), founder of the Museum of Indigenous Archaeology of Carmo do Rio Claro (Minas Gerais State, Brazil), which has a “rich” collection of archaeological pieces between 2,000 and 12,000 years old, mainly found in the region of the type locality of this species

***Trichomycterus anaísae* Katz & Costa 2021** in honor of Brazilian ichthyologist Maria Anaís Barbosa, for her “fine contribution for our better knowledge on trichomycterines”

***Trichomycterus coelhorum* Costa, Azevedo-Santos & Katz 2023** *-orum*, commemorative suffix, plural: in honor of zoologist Paula Nunes Coelho for her help with the type series, and her family for logistical support during the authors’ studies in the region

***Trichomycterus funebris* Katz & Costa 2021** Latin for funereal, referring to rio das Mortes (“river of deaths”), Minas Gerais, Brazil, type locality

***Trichomycterus humboldti* Costa & Katz 2021** in honor of Prussian geographer-naturalist Alexander von Humboldt (1769–1859), for his “pioneering and inspiring insights on South American mountain biodiversity, as well as for being the first describer of a trichomycterine catfish”

***Trichomycterus ingaiensis* Katz & Costa 2021** *-ensis*, Latin suffix denoting place: Rio Ingaí subdrainage (Minas Gerais, Brazil), where type locality (Ribeirão Malha Feijão) is situated

***Trichomycterus itaiayae* Miranda Ribeiro 1906** of the Itatiaia mountains, Rio de Janeiro State, Brazil, type locality

***Trichomycterus luetkeni* Katz & Costa 2021** in honor of Danish ichthyologist Christian Frederick Lütken (1827–1901), author of “Velhas-Flodens Fiske” (1875), an “important” contribution to the knowledge of taxonomy and natural history of freshwater fishes from the Rio São Francisco basin of Brazil, and in which the first species of the *T. reinhardti* group was recorded

***Trichomycterus pauciradiatus* Alencar & Costa 2006** *paucus* (L.), few or scanty; *radiatus* (L.), rayed, referring to reduced number of pelvic-fin rays (four)

***Trichomycterus piratymbara* Katz, Barbosa & Costa 2013** combination of the Tupí words *pira*, fish, and *tymbara*, to dig itself, referring to its “peculiar habit” of hiding in the substrate

***Trichomycterus reinhardti* (Eigenmann 1917)** patronym not identified but probably in honor of Danish zoologist Johannes Theodor Reinhardt (1816–1882), who proposed the trichomycterid genus *Stegophilus* (*Stegophilinae*) in 1859

***Trichomycterus sainthilairei* Katz & Costa 2021** in honor of French botanist Augustin François César Prouvençal de Saint-Hilaire (1779–1853), who traveled in Brazil (1816 and 1853) and collected fishes; his “accurate reports provide the finest 19th century picture of the landscape” of the type-locality region of this species

***Trichomycterus septemradiatus* Katz, Barbosa & Costa 2013** *septem* (L.), seven; *radiatus* (L.), rayed, referring to its seven pectoral-fin rays

Subgenus *Psammoambeva* Costa 2021

psámmos (Gr. ψάμμος), sand, referring to sand-burying habits of *T. travassosi* and other included species; *cambeva*, vernacular name for trichomycterids in southern and southeastern Brazil, derived from the Tupí *a'käg*, head, and *pewa*, flat, referring dorsally flattened head

***Trichomycterus alternatus* (Eigenmann 1917)** Latin for alternated, referring to 10–14 large spots along middle of sides, frequently alternating with a series of spots above them and sometimes partly confluent with them, forming a longitudinal series or a series of irregular bars across the back

***Trichomycterus altipombensis* Costa, Katz, Vilardo & Mattos 2022** *-ensis*, Latin suffix denoting place: *altus* (L.), high or upper, referring to its occurrence in the upper section of the Rio Pomba, Paraíba do Sul basin, Santa Bárbara do Tigúrio Municipality, Minas Gerais State, Brazil

***Trichomycterus astromycterus* Reis, de Pinna & Pessali 2019** combination of *Astroblepus* (*Astroblepidae*) and *Trichomycterus*, referring to the “superficially similar aspect” between the two genera

***Trichomycterus auroguttatus* Costa 1992** *aureus* (L.), golden; *guttatus* (L.), spotted, referring to golden spots (alternating with dark spots) on posterior half of body, and a row of gold spots on midline of back, behind dorsal-fin base

***Trichomycterus brigadeirensis* Costa, Katz & Vilardo 2023** *-ensis*, Latin suffix denoting place: Serra do Brigadeiro, Araponga Municipality, Minas

Gerais State, Brazil, where it occurs

***Trichomycterus caparaensis* Costa, Barbosa & Katz 2023** *-ensis*, Latin suffix denoting place: Serra do Caparaó, Araponga Municipality, Minas Gerais State, Brazil, only known area of occurrence

***Trichomycterus caratinguensis* Costa, Katz & Vilaro 2023** *-ensis*, Latin suffix denoting place: Rio Caratinga drainage, Rio Doce basin, southeastern Brazil, only known area of occurrence

***Trichomycterus castelensis* Costa, Katz & Vilaro 2023** *-ensis*, Latin suffix denoting place: Serra do Castelo, Afonso Claudio, Minas Gerais State, Brazil, where it occurs

***Trichomycterus caudofasciatus* Alencar & Costa 2004** *cauda-*, from *cauda* (L.), tail; *fasciatus* (L.), banded, referring to four faint gray bars on caudal fin

***Trichomycterus castelensis* Costa, Katz & Vilaro 2023** *-ensis*, Latin suffix denoting place: Serra do Castelo, Afonso Claudio, Minas Gerais State, Brazil, where it occurs

***Trichomycterus diamantinensis* Costa, Feltrin, Mattos & Katz 2024** *-ensis*, Latin suffix denoting place: Chapada Diamantina (Bahia, Brazil), where type locality (rio da Bomba) is situated

***Trichomycterus espinhacensis* Costa & Katz 2023** *-ensis*, Latin suffix denoting place: Serra do Espinhaço, an “important biodiversity centre of south-eastern Brazil,” where it occurs

***Trichomycterus gasparinii* Barbosa 2013** in honor of Brazilian zoologist João Luis Rosetti Gasparini, who first collected this species in 2001

***Trichomycterus goeldii* Boulenger 1896** in honor of Swiss-Brazilian zoologist Émil (or Emilio) Goeldi (1859–1917), Director of the Museo Paraense and author of numerous works on the natural history of Brazil, and/or his brother Andreas Goeldi, who provided a “set of the fishes” from Organ Mountain, Brazil, “which appears to produce but six species” (including this one)

***Trichomycterus immaculatus* (Eigenmann & Eigenmann 1889)** *im-*, from *in-* (L.), not; *maculatus* (L.), spotted, presumably referring to uniform blackish-brown coloration (compared with the spotted *T. oroyae*, described in the same publication)

***Trichomycterus ipatinga* Reis & de Pinna 2022** named for Ipatinga, a city in Minas Gerais, Brazil, where the rio Piracicaba River joins the rio Doce, presumably near type locality

***Trichomycterus itacambirussu* Triques & Vono 2004** Latinization of Itacambiruçu, rio Jequitinhonha tributary (Minas Gerais State, Brazil), type locality; composed of the Tupí-Guaraní words *ita*, stone; *kamby*, milk and probably *açú*, large, meaning large stone producing milk

***Trichomycterus jacupiranga* Wosiacki & Oyakawa 2005** named for the type locality, Parque Estadual de Jacupiranga (Cajati, São Paulo, Brazil), from indigenous Tupí language name for a species of bird native to the region (*Penelope obscura*, Cracidae), commonly known as the dusky-legged guan (*yaku*, bird; *piranga*, red)

***Trichomycterus landinga* Triques & Vono 2004** local name for this catfish in Coronel Murta, Minas Gerais, Brazil, type locality

***Trichomycterus largoperculatus* Costa & Katz 2022** *largus* (L.), large; *operculatus* (L.), furnished with a lid, referring to its broad opercular odontode patch resulting from the high number of odontodes, unique among congeners

***Trichomycterus longibarbatu*s Costa 1992** *longus* (L.), long; *barbatus* (L.), bearded, referring to its long nasal barbels

***Trichomycterus macrophthalmus* Barbosa & Costa 2012** big-eyed, from *makrós* (Gr. μακρός), long or large, and *ophthalmós* (Gr. ὀφθαλμός), eye, referring to its large eye, an “uncommon condition” in *Trichomycterus*

***Trichomycterus melanopygius* Reis, dos Santos, Britto, Assis Volpi & de Pinna 2020** dark-rumped, from *mélas* (Gr. μέλας), dark or black, and *pygidion*, Neo-Latin diminutive of *pygḗ* (Gr. πυγή), rump (i.e., the caudal

part of an animal), referring to dark horizontal stripe along caudal fin

***Trichomycterus mimosensis* Barbosa 2013** *-ensis*, Latin suffix denoting place: Mimoso do Sul, Espírito Santo, Brazil, type locality

***Trichomycterus pantherinus* Alencar & Costa 2004** Latin for panther-like, referring to its color pattern (small dark brown to black rounded spots on a light orangish yellow body)

***Trichomycterus paquequerensis* (Miranda Ribeiro 1943)** *-ensis*, Latin suffix denoting place: Rio Paquequer Grande, Estado do Rio de Janeiro, Brazil, type locality

***Trichomycterus pradensis* Sarmento-Soares, Martins-Pinheiro, Aranda & Chamon 2005** *-ensis*, Latin suffix denoting place: rio do Prado, upstream stretch of rio Jucuruçu, Bahia State, Brazil, type locality

***Trichomycterus puriventris* Barbosa & Costa 2012** *purus* (L.), clean, unstained or unspotted; *ventris*, genitive of *venter* (L.), belly, referring to absence of dark pigmentation below lateral midline of body

***Trichomycterus saquarema* Costa, Katz, Vilaro & Amorim 2022** named for the Lagoa de Saquarema system, Saquarema Municipality, Rio de Janeiro State, Brazil, where type locality (rio Roncador) is situated

***Trichomycterus tantalus* Reis, Vieira & de Pinna 2022** from the Ancient Greek mythological figure Tantalos, symbolic of eternal torment, referring to the hypertrophied opercular patch of odontodes in this species, the largest among species of *Trichomycterus* in the rio Doce basin (Minas Gerais, Brazil)

***Trichomycterus tete* Barbosa & Costa 2011** local name for this catfish in northeastern (Bahia) Brazil

***Trichomycterus travassosi* (Miranda Ribeiro 1949)** in honor of Brazilian helminthologist-entomologist Lauro Travassos (1890–1970), who collected holotype

***Trichomycterus trefauti* Wosiacki 2004** in honor of Brazilian herpetologist Miguel Trefaut Rodrigues (b. 1953), who discovered this species and collected holotype

***Trichomycterus vinnulus* Reis & de Pinna 2022** Latin for delightful, one of the most beautiful species of *Trichomycterus* from the Rio Doce basin (Minas Gerais, Brazil) in terms of color and body shape¹

Subgenus *Incertae sedis*

***Trichomycterus aguarague* Fernández & Osinaga 2006** named for Aguarague National Park, Río Paraná system, Tarija, Bolivia, where it is endemic

***Trichomycterus alterus* (Marini, Nichols & La Monte 1933)** Latin for another, second or next, allusion not explained nor evident

***Trichomycterus ardilai* Ardila Rodríguez 2023** in honor of Rubén Ardila (b. 1942), “one of the Fathers of Psychology in Colombia, for his enthusiastic, altruistic and academic research” (translation)

***Trichomycterus areolatus* Valenciennes 1846** Latin for with small spaces, referring to patches of “areolar tissue” (translation) on throat, breast and back that appear scale-like on an otherwise scaleless body

***Trichomycterus arhuaco* Ardila Rodríguez 2016** named for the Arhuaco, indigenous people of the Sierra Nevada de Santa Marta, Colombia, where this catfish occurs [possibly conspecific with *T. montesi*?]

***Trichomycterus arleoi* (Fernández-Yépez 1972)** in honor of Octavio Arleo Pignatoro (1920–2005), former collector and taxidermist for the Museo de Ciencias Naturales de Caracas, who collected this catfish with Fernández-Yépez in 1949

¹ Vinícius Reis, pers. comm.

² DoNascimento, C. and S. Prada-Pedreiros. 2020. A new troglomorphic species of *Trichomycterus* (Siluriformes: Trichomycteridae) from northeastern Colombia, with proposal of a new *Trichomycterus* subclade and remarks on some nominal species from Colombia. *Journal of Fish Biology* 96 (4): 968–985.

Trichomycterus atochae (Allen 1942) of Río de Atocha, Bolivia, type locality

Trichomycterus bahianus Costa 1992 *-anus* (L.), belonging to: Bahia State, Brazil, where type locality (tributary of Ribeirão Caveira, rio Una basin) is situated

Trichomycterus ballesterosi Ardila Rodríguez 2011 in honor of biologist Jesús Ballesteros Correa, University of Córdoba (Colombia), who collected holotype

Trichomycterus banneaui (Eigenmann 1912) in honor of Henri Banneau, a “commercial traveler” from Paris, “familiar with all the traveled parts of South America” and “enthusiastic over fishing,” whose crew on the steamer of the Magdalena River in Colombia “secured valuable material,” and who himself “entered actively into the work of collecting” and relieved Eigenmann “entirely of the vexations of handling” his baggage

Trichomycterus barbouri (Eigenmann 1911) in honor of American herpetologist Thomas Barbour (1884–1946), later director of the Harvard Museum of Comparative Zoology, who obtained holotype in La Paz, Bolivia, from a “person who had been prospecting along the Beni River”

Trichomycterus barrocos Reis & de Pinna 2022 Latinized adjective from the Portuguese *barroco*, originally designating a pearl of irregular shape, here referring to the “baroque-style beauty” of this species

Trichomycterus belensis Fernández & Vari 2002 *-ensis*, Latin suffix denoting place: Departamento Bélen, Provincia de Catamarca, Argentina, type locality

Trichomycterus bogotensis (Eigenmann 1912) *-ensis*, Latin suffix denoting place: “On the plains of Bogata” [Colombia], elevation nearly 2,743 m, type locality

Trichomycterus bomboizanus (Tortonese 1942) *-anus* (L.), belonging to: Río Bomboiza, Ecuador, type locality

Trichomycterus borellii Boulenger 1897 in honor of French-born Italian zoologist Alfredo Borelli (1858–1943), Università di Torino, who led three expeditions to South America and collected many animals, including holotype of this one

Trichomycterus boylei (Nichols 1956) in honor of American ornithologist Howarth S. Boyle (1894–1951), Nichols’ friend and colleague at the American Museum of Natural History, who collected holotype

Trichomycterus brucutu Reis & de Pinna 2022 Brazilian Portuguese slang for rustic, rough or brute, referring to its thick, deep body and caudal peduncle

Trichomycterus cachiraensis Ardila Rodríguez 2008 *-ensis*, Latin suffix denoting place: Municipio Cáchira, Departamento de Norte de Santander, Colombia, type locality

Trichomycterus calai Ardila Rodríguez 2019 in honor of the “eminent” (translation) scientist Plutarco Cala Cala (b. 1938), Universidad Nacional de Colombia, founder the Asociación Colombiana de Ictiólogos (ACIC-TIOS) and recipient of its highest honor, “El Pez Dorado al Merito”

Trichomycterus caliensis (Eigenmann 1912) *-ensis*, Latin suffix denoting place: Cali, Colombia, type locality

Trichomycterus casitaensis Ardila Rodríguez 2017 *-ensis*, Latin suffix denoting place: Casitas, Abrego, Department of Norte de Santander, Colombia, type locality [possibly a junior synonym of *T. ocaensis*²]

Trichomycterus catamarcensis Fernández & Vari 2000 *-ensis*, Latin suffix denoting place: Catamarca Province, Argentina, where type locality (stream tributary to Laguna Blanca) is situated

Trichomycterus celsae Lasso & Provenzano 2003 in honor of herpetologist Josefa Celsa Señaris (b. 1965), for her “continuous and laborious assistance” (translation) in the collection of fishes in the Guyana Shield of Venezuela

Trichomycterus cerritoensis Ardila Rodríguez 2018 *-ensis*, Latin suffix denoting place: municipio de El Cerrito, Departamento de Santander,

Colombia, type locality [possibly conspecific with *T. sucrensis*²]

Trichomycterus chaberti Durand 1968 in honor of French cave explorer Jacques Chabert, who helped collect holotype

Trichomycterus chapadensis Katz and Costa 2021 *-ensis*, Latin suffix denoting place: Chapada dos Guimarães, a plateau surrounding the northern Pantanal (Mato Grosso, Brazil), where it occurs

Trichomycterus chapmani (Eigenmann 1912) patronym not identified; Eigenmann mentioned a “Dr. F. M. Chapman” in a later publication³, who was a traveling companion in South America, perhaps ornithologist Frank M. Chapman (1864–1945), American Museum of Natural History

Trichomycterus chiltoni (Eigenmann 1928) in honor of Col. M. A. Chilton, military attaché of the American Embassy in Santiago de Chile, who toured the “Switzerland of Chile” (i.e., Chilean Lake District in southern Chile, defined by its many lakes in the Andean foothills) with Eigenmann

Trichomycterus chungaraensis Arratia 1983 *-ensis*, Latin suffix denoting place: streams of Chungará Lake, Chile, where it is endemic

Trichomycterus conradi (Eigenmann 1912) in honor of Bernard S. Conrad, Georgetown, Washington, D.C. (USA), who “greatly assisted the expedition [during which holotype was collected] with advice and guidance,” and introduced Eigenmann to “other gentlemen, who aided [him] in a variety of ways”

Trichomycterus corduensis Weyenbergh 1877 *-ensis*, Latin suffix denoting place: Córdoba (also spelled Córdova), Santa Fe, Argentina, type locality

Trichomycterus dali Rizzato, Costa, Trajano & Bichuette 2011 named for Spanish artist Salvador Dali (1904–1989), referring to his famously long moustache and this species’ very long barbels [a noun in apposition, without the patronymic “i”]

Trichomycterus dispar (Tschudi 1846) Latin for unlike or dissimilar, referring to its sexual dimorphism, with monochromatic males and spotted females

Trichomycterus donascimientoi Castellanos-Morales 2018 in honor of Venezuelan ichthyologist Carlos DoNascimento (b. 1973), for his “invaluable orientation” in the author’s research into *Trichomycterus*

Trichomycterus dorsostriatatus (Eigenmann 1917) *dorso-*, from *dorsalis* (L.), of the back; *striatus* (L.) striped, presumably referring to dark band or row of spots from just above gill opening to base of upper caudal-fin lobe [appeared initially as *dorsotriatum(us)*, presumed to be a typographical error]

Trichomycterus duellmani Arratia & Menu-Marque 1984 in honor of American herpetologist William E. Duellman (1930–2022), University of Kansas, collector of many South American fishes during 1974–1975

Trichomycterus emanueli (Schultz 1944) in honor of Juan F. Emanuel, former governor of the district of Goajira (Venezuela), who acted as Schultz’ guide in much of his collecting in the lowlands of the Maracaibo Basin

Trichomycterus fassli (Steindachner 1915) in honor of Anton Heinrich Hermann Fassl (1876–1922), German commercial butterfly and beetle collector, who collected holotype, for his services to zoological research in Bolivia [Steindachner later changed spelling to *fasslii*, but original spelling stands]

Trichomycterus ferreri Ardila Rodríguez 2018 in honor of the “eminent scientist” (translation) Jorge de Jesus Ferrer Castellanos, for his contributions to Colombian botany and zoology; he also helped collect holotype [possibly a junior synonym of *T. mogotensis*²]

Trichomycterus gabrieli (Myers 1926) of Sao Gabriel rapids, rio Negro, Brazil, type locality

³ Eigenmann, C. H. and W. R. Allen. 1942. Fishes of Western South America. I. The intercordilleran and Amazonian lowlands of Peru. II. The high pampas of Peru, Bolivia, and northern Chile. With a revision of the Peruvian Gymnotidae, and of the genus *Orestias*. University of Kentucky. i–xv + 1–494, Pls. 1–22.

Trichomycterus gairaensis Ardila Rodríguez 2018 *-ensis*, Latin suffix denoting place: rio Gaira, Municipio de Santa Marta, Departamento del Magdalena, Colombia, type locality

Trichomycterus gambitaensis Ardila Rodríguez 2023 *-ensis*, Latin suffix denoting place: the “beautiful” (translation) municipality of Gámbita, Departamento de Santander, Colombia, where type locality is situated, and homeland of the “great” (translation) Colombian musician Luis Antonio Calvo (1882–1945)

Trichomycterus garciamarquezii Ardila Rodríguez 2016 in honor of Nobel Prize-winning novelist Gabriel García Márquez (1927–2014), who was born in the area of Colombia bordered by the rivers Tucurín and Aracataca, where this catfish occurs

Trichomycterus giarettai Barbosa & Katz 2016 in honor of Brazilian herpetologist Ariovaldo A. Giaretta (b. 1966) Universidade Federal de Uberlândia (Brazil), who collected holotype

Trichomycterus gorgona Fernández & Schaefer 2005 named for Gorgona Island, Colombia, where it is known from only one stream

Trichomycterus guianensis (Eigenmann 1909) *-ensis*, Latin suffix denoting place: Guyana, referring to type locality, Aruataima Falls, upper Potaro River

Trichomycterus heterodontus (Eigenmann 1917) *héteros* (Gr. ἕτερος), different; *odontos*, Latinized and grammatically adjusted from the nominative *odoús* (Gr. ὀδοús), tooth, referring to three series of teeth on each jaw: narrow incisors on outer row, much smaller incisors on second row, conic on the third

Trichomycterus hualco Fernández & Vari 2009 named for the Río Hualco, Provincia de La Rioja, Argentina, type locality

Trichomycterus illuvies Reis & de Pinna 2022 Latin for filth, dirt or flood, referring to the “environmental mayhem” caused by the mining company Samarco SA on the Rio Doce (Minas Gerais, Brazil), in whose basin this catfish occurs; the name is a “long-term reminder of the catastrophe suffered by that hydrographic basin”

Trichomycterus itacarambiensis Trajano & de Pinna 1996 *-ensis*, Latin suffix denoting place: Município de Itacarambi (Minas Gerais State, Brazil), location of Olhos d'Água cave, only known area of occurrence

Trichomycterus jatobensis Costa 2021 *-ensis*, Latin suffix denoting place: rio Jatobá, subdrainage, Rio Xingu drainage (Mato Grosso, Brazil), where it occurs

Trichomycterus jequitinhonhae Triques & Vono 2004 of the rio Jequitinhonha (Minas Gerais State, Brazil), where this catfish is endemic; name is a combination of the Tupi-Guaraní words *jequi*, a type of fish trap, and *nhonha*, an old local word meaning fish (the combination of the two words means fishes are in the trap)

Trichomycterus kankuamo Ardila Rodríguez 2016 named for the Kankuamo, the indigenous people of the Atlinquez subdivision, Sierra Nevada de Santa Marta, Municipio de Valledupar, Colombia, where this catfish occurs [possibly a junior synonym of *T. maracaiboensis*]

Trichomycterus knerii Steindachner 1882 patronym not identified but clearly in honor of Austrian ichthyologist Rudolf Kner (1810–1869), who was Steindachner's teacher and friend (and who studied trichomycterid fishes)

Trichomycterus latidens (Eigenmann 1917) *latus* (L.), broad or wide; *dens* (L.), tooth, an odd choice for a name since Eigenmann described teeth as “thin, chisel-shaped”

Trichomycterus latistriatus (Eigenmann 1917) *latus* (L.), broad or wide; *striatus* (L.), striped, presumably referring to lateral band that widens as it extends from above opercle to middle of caudal fin

Trichomycterus laucaensis Arratia 1983 *-ensis*, Latin suffix denoting place: Río Lauca system, Parinacota, northern Chile, where it is endemic

Trichomycterus lauryi Donin, Ferrer & Carvalho 2020 in memory of Laury João Donin, the first author's father

Trichomycterus lauzannii Miranda & Fernández 2020 in honor of French ichthyologist Laurent Lauzanne, one of the first to work systematically on Bolivian fishes

Trichomycterus lewi Lasso & Provenzano 2003 in honor of zoologist Daniel Lew, member of expedition during which holotype was collected, for contributions to the knowledge and conservation of biodiversity in the Guyana Shield of Venezuela

Trichomycterus maldonadoi Ardila Rodríguez 2011 in honor of Javier Alejandro Maldonado-Ocampo (1977–2019), for his dedication to Colombian ichthyology (sadly, he was killed when crossing a river in a small boat; the boat overturned and he was swept downstream)

Trichomycterus manaurensis Ardila Rodríguez 2016 *-ensis*, Latin suffix denoting place: municipio de Manaure, Departamento del Cesar, Colombia, type locality [possibly conspecific with *T. torcoromaensis*]

Trichomycterus maracaiboensis (Schultz 1944) *-ensis*, Latin suffix denoting place: Lake Maracaibo basin, Venezuela, where type locality is situated

Trichomycterus megantoni Fernández & Chuquihuamani 2007 of Santuario Nacional Machiguenga Megantoni (Ucayali basin, Peru), where type locality is situated

Trichomycterus meridae Regan 1903 of Merida, elevation 3500 m, Venezuela, type locality

Trichomycterus migrans (Dahl 1960) Latin for migrating, referring to the “mass wanderings” of ~40,000 specimens observed by Dahl, which turned the river water a milky white, apparently from their milt [see inset, next page]

Trichomycterus minus Fernández & Vari 2012 Latinization of the Anglo-Saxon *mine*, referring to mining activities common in part of the Province of Catamarca, Argentina, where it is endemic

Trichomycterus mogotensis Ardila Rodríguez 2017 *-ensis*, Latin suffix denoting place: municipio de Mogotes (Tesoro Natural), Departamento del Santander, Colombia, where type locality is situated

Trichomycterus mondolfi (Schultz 1945) in honor of Venezuelan biologist Egardo Mondolfi (1918–1999), who helped collect holotype and sent specimens to Schultz for study

Trichomycterus montesi Ardila Rodríguez 2016 in honor of Colombian herpetologist Andrés Camilo Montes Correa, Universidad del Magdalena, who collected holotype with the author [possibly conspecific with *T. arhuaco*]

Trichomycterus motatanensis (Schultz 1944) *-ensis*, Latin suffix denoting place: Motatan River system, Maracaibo Basin, Venezuela, type locality

Trichomycterus nabusimakensis Ardila Rodríguez 2018 *-ensis*, Latin suffix denoting place: Nabusimake, name used by Arhuaco indigenous people for Valle de San Sebastian de Rabago, Departamento del Cesar [actually, Magdalena], Colombia, where type locality is situated

Trichomycterus nietoi Ardila Rodríguez 2014 in honor of Luis Eduardo Nieto Alvarado, Universidad del Magdalena, for contributions to Colombian ichthyology

Trichomycterus nigromaculatus Boulenger 1887 *nigro-*, from *niger* (L.), dark or black; *maculatus* (L.), spotted, referring to numerous black spots of unequal size on body

Trichomycterus ocaensis Ardila Rodríguez 2011 *-ensis*, Latin suffix denoting place: municipality of Ocaña, Department of Norte de Santander, Colombia, type locality

Trichomycterus oroyae (Eigenmann & Eigenmann 1889) of Rio Oroya, Pochachara, Brazil, type locality

Trichomycterus piurae (Eigenmann 1922) of Piura, Peru, type locality (also endemic to Piura River basin)

Trichomycterus pseudosilvinichthys Fernández & Vari 2004 *pseudo-*,

from *pseudēs* (Gr. ψεύδης), false, i.e., although similar in external appearance to the related *Silvinichthys*, such an appearance is false

Trichomycterus puna Fernández, Contrera & Andreoli Bize 2023 named for Puna (of Quechuan origin), the geological province where this catfish occurs

Trichomycterus punctatissimus Castelnau 1855 superlative of *punctatus* (L.), spotted, i.e., very spotted, referring to tiny dark brown dots fully covering body and fins

Trichomycterus punctulatus Valenciennes 1846 diminutive of *punctum* (L.), spot, i.e., having tiny spots, presumably referring to “numerous brown spots advancing on the tail and even on the back” (translation)

The mass migrations of *Trichomycterus migrans*

In 1960, Swedish ichthyologist George Dahl (1905-1979) described *Pygidium* (now *Trichomycterus*) *migrans* from the Guavabero River in the Southern Macarena Mountains of Colombia. He named the species *migrans* because of its impressive mass migrations (presumably spawning migrations), comprising upwards of 40,000 individuals. Dahl also described the catfish’s ability to escape their holding container and wriggle a short distance over rocks and back into the river. Since Dahl’s account is not well known, portions are quoted here:



March 14th, 1959. A big migration of [*T. migrans*] passed by, following very close to the river bank (here rocky). The school had a length of approx. 20 meters by a width of perhaps 40 cm., being on the whole very symmetrical, the terminations fore and aft softly rounded and the whole from some distance giving exactly the same impression as a very large anaconda swimming (though of course too long and narrow). With a single swift of a butterfly net, Dr. Ricardo Lozano caught more than ¾ gallon of the small fishes, that is to say, at least one thousand. At Dr. Lozan’s own estimate, with which I thoroughly agree, he removed about 50 cm. length from the “band” near the front end. This would mean that the number of specimens in the migratory school would total at least 40 times those caught. As they were swept up, the water in and around the net turned completely milky white, apparently from milt spilled by the fishes, and likewise the rock where they were landed. Lacking a microscope at the moment, the author was unable to investigate the true

Later that day, Dahl observed another migrating “band” of *T. migrans*:

A number of specimens from this band were captured and placed in about 10 cm. of water in a large aluminum container with completely vertical walls, 42 cm. high. There they continued to swim round the circular container, in closer vicinity of the wall, keeping up their formation and moving in unison. Some of the water was removed, so that there was a naked aluminum wall, 37 cm. high, above water-level. Some of the fishes began to climb this, as far as it was wet, where some water had been spilled. As soon as they reached the dry part near the edge, they turned back downward. Noting this, the author spilled some water down the wall of the container, so that it stayed wet all the way up. Now, several specimens climbed straight up to the edge, wriggled over it and fell down on the

nature of this coloration. Most of the fishes were put into a large can with undiluted formaline, and this turned white too. Later on, when some specimens were dissected under the microscope, it was found that their gonads had burst and were practically empty. All the dissected specimens were males.

The “band” of fishes was almost compact. A few stragglers were observed, but only about a dozen. The opening formed by the sweep of the net was completely and almost instantly filled, and the migration continued without interruption. The small fishes swam at a good speed, and their swimming movements, though somewhat undulating, were not at all eel-like as in the foregoing species [*Schultzichthys gracilis*].

On February 24th, Dr. [Fred] Medem had observed a similar migration, though somewhat longer and narrower, and had taken specimens, which were found to belong to the same species.

Both migrations occurred when the river was rather swollen after heavy rains and fairly abundant rain-water was coming out of the small mountain breaks, which had earlier been dry for some time. It did not actually rain on the day of either migration, but had done so rather abundantly on two of three days before each migration.

rocks; from there they climbed and wriggled out into the river, a distance of only some 60 cm. It is noteworthy that they always climbed the receptor on the side nearest the river; not a single specimen tried any other place on the wall, even when those were kept wet.

As soon as the uppermost 3-4 cm. of the wall dried, the fishes went up to the border of the wet part of the metal, and then they turned down again, even when the distance to the edge was less than their own length. Apparently, their climbing is not directed by sight but by some other sense, or else they are incapable of crossing the dry aluminum but none seemed to try.

Those that made it back to the river, Dahl noted, were almost always attacked and eaten by large *Astyanax* and other characids. In addition, schools of silvery characids “considerably smaller” than the catfishes appeared to follow them, presumably “to eat their spawn.”

Dahl’s account (and the illustration) appeared in his 1960 paper: Nematognathous fishes collected during the Macarena Expedition 1959. [Part I.]. *Novedades Colombianas* 1 (5): 302–317.

***Trichomycterus quechuorum* (Steindachner 1900)** etymology not explained, probably *-orum* (L.), commemorative suffix, plural: named for the Quecha indigenous people of South America, particularly of Peru, where it is endemic

***Trichomycterus ramosus* Fernández 2000** Latin for having many branches, referring to branched nasal and maxillary barbels

***Trichomycterus regani* (Eigenmann 1917)** in honor of English ichthyologist Charles Tate Regan (1878–1943), Natural History Museum (London), who reported this species as *Pygidium* (= *Trichomycterus*) *taenia* in 1913

***Trichomycterus retropinnis* Regan 1903** *retro-* (L.), back; *pinnis*, Neo-Latin adjective of *pinna* (L.), i.e., finned, referring to origin of dorsal fin above or slightly behind anal opening (compared with before anal fin opening as in *T. meridae*, described in the same publication)

***Trichomycterus riojanus* (Berg 1897)** *-anus* (L.), belonging to: Cordillera [mountain range] de La Rioja, Argentina, where it is endemic

***Trichomycterus rivulatus* Valenciennes 1846** Latin for marked by irregular streaks, referring to “white flexing and wavy lines, forming well-marked rivulets” (translation) on brown body

***Trichomycterus roigi* Arratia & Menu-Marque 1984** in honor of Argentinian zoologist Arturo Roig, who collected holotype

***Trichomycterus romeroi* (Fowler 1941)** in honor of fish culturist Augusto Romero Padilla, Cundinamarca Department, Colombia

***Trichomycterus rosablanca* Mesa S., Lasso, Ochoa & DoNascimento 2018** named for the Rosablanca karstic formation, where type locality (Las Sardinias Cave, El Peñón, Santander, Colombia) is situated

***Trichomycterus rubbioli* Bichuette & Rizzato 2012** in honor of Brazilian speleologist Ezio Rubbioli (b. 1964), the first explorer of Serra do Ramalho caves, who brought this species to the authors’ attention [a noun in apposition, without the patronymic “i”]

***Trichomycterus ruitoquensis* Ardila Rodríguez 2007** *-ensis*, Latin suffix denoting place: Ruitoque, a village in the municipality of Floridablanca, Santander Department, Colombia, where Ardila Rodríguez spent his childhood and youth collecting, studying and comparing fishes in rivers and streams (and near where this catfish occurs)

***Trichomycterus sandovali* Ardila Rodríguez 2006** in honor of poet Juan Sandoval Tarazona, from the author’s hometown of Floridablanca (Santander, Colombia), and namesake of the cave (Don Juan Cave) where it occurs

***Trichomycterus santanderensis* Castellanos-Morales 2007** *-ensis*, Latin suffix denoting place; Santander Department, Colombia, where this catfish is known from the El Puente Cave in the upper Lebrija River drainage

***Trichomycterus sketi* Castellanos-Morales 2011** in honor of Slovenian zoologist Boris Sket (1936–2023), who reported the existence of this species in his speleobiological investigation of the Colombian Andes (1988)

***Trichomycterus spectrum* DoNascimento & Prada-Pedrerros 2020** Latin for an apparition or spectre, referring to its “spectral-like appearance” (eyeless and whitish) and to the “dark and lugubrious habitat” where it lives (a cave)

***Trichomycterus spagazzinii* (Berg 1897)** in honor of Italian-Argentinian botanist and mycologist Carlos Luigi Spagazzini (1858–1926), who collected holotype

***Trichomycterus spelaeus* DoNascimento, Villarreal & Provenzano 2001** Latin for of a cave, referring to Punto Fijo Cave, upper Guasare River basin, Venezuela, only known area of occurrence

***Trichomycterus spilosoma* (Regan 1913)** *spilos* (Gr. σπῖλος), mark or spot; *sōma* (Gr. σῶμα), body, referring to dark-brown spots on body (and fins)

***Trichomycterus steindachneri* DoNascimento, Prada-Pedrerros &**

Guerrero-Kommritz 2014 in honor of “prominent” Austrian ichthyologist Franz Steindachner (1834–1919), for a lifetime of work documenting fish biodiversity, especially that from South America; his “profuse morphological descriptions mainly contributed to settle the current standard in ichthyological taxonomic works”

***Trichomycterus stellatus* (Eigenmann 1918)** Latin for studded with stars, presumably referring to variable number of dark spots, smaller than the eye, above lateral stripe and below it on the tail

***Trichomycterus straminus* (Eigenmann 1917)** presumed misspelling of *stramineus* (L.), straw-like, referring to its uniform straw coloration in alcohol

***Trichomycterus striatus* (Meek & Hildebrand 1913)** Latin for striped, referring to two dark bands from upper angle of opercle to middle of caudal-fin base

***Trichomycterus sucrensis* Ardila Rodríguez 2018** *-ensis*, Latin suffix denoting place: Municipio de Sucre, Departamento de Santander, Colombia, where this catfish appears to be endemic [possibly conspecific with *T. cerritoensis*²]

***Trichomycterus taczanowskii* Steindachner 1882** in honor of Polish zoologist Władysław (or Ladislas) Taczanowski (1819–1890), who facilitated the shipment of specimens to Steindachner

***Trichomycterus taenia* Kner 1863** named for its striking similarity in size and color to the Eurasian loach *Cobitis taenia* (Cobitidae)

***Trichomycterus taeniops* Fowler 1954** etymology not explained, probably *ōps* (Gr. ὤψ), eye or face (i.e., appearance), referring to slender and elongated body shape, similar to that of the Eurasian loach *Cobitis taenia* (Cobitidae) [replacement name for *Pygidium tenue* Fowler 1945, preoccupied by *T. tenuis* Weyenbergh 1877]

***Trichomycterus tenuis* Weyenbergh 1877** Latin for thin or slender, referring to its “highly compressed” (translation) body shape

***Trichomycterus tetuanensis* García-Melo, Villa-Navarro & DoNascimento 2016** *-ensis*, Latin suffix denoting place: río Tetuán, upper río Magdalena basin, Colombia, type locality

***Trichomycterus therma* Fernández & Miranda 2007** from *thermós* (Gr. θερμός), hot, named for the Greek city of Therma, known for its hot springs, reference to its habitat in thermal water (>35°C)

***Trichomycterus tiraquae* (Fowler 1940)** of Tiraque, Cochabamba Department, Bolivia, type locality

***Trichomycterus triguttatus* (Eigenmann 1918)** *tri-* (L.), three; *guttatus* (L.), spotted, referring to three rows of spots: along middle of sides, along middle of back, and in between [may belong in *Microcambeva*, Microcambevinæ]

***Trichomycterus torcoromaensis* Ardila Rodríguez 2016** *-ensis*, Latin suffix denoting place: Torcoroma, a brook in the municipality of Ocaña, Department of Norte de Santander, Colombia, type locality [possibly conspecific with *T. manauensis*²]

***Trichomycterus transandianus* (Steindachner 1915)** *trans* (L.), over or beyond; *andianus* (L.), belonging to the Andes, referring to its type locality in the mountains of central Columbia (elevation 1800 m), compared with the western slope distribution of *T. taenia* in Ecuador

***Trichomycterus uisae* Castellanos-Morales 2008** of UIS, acronym of Universidad Industrial de Santander (Departamento de Santander, Colombia), near where this catfish occurs and where some of the paratypes are housed

***Trichomycterus unicolor* (Regan 1913)** *uni-*, from *unus* (L.), one, referring to its uniform coloration (compared with the spotted *T. spilosoma*, described in the same publication)

***Trichomycterus valleduparensis* Ardila Rodríguez 2018** *-ensis*, Latin suffix denoting place: the “beautiful” (translation) city of Valledupar, Departamento del Cesar, Colombia, where type locality (Río Guatapurí) is situated

***Trichomycterus varii* Fernández & Andreoli Bize 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 the South American freshwater fishes, especially those from the Andes

***Trichomycterus vittatus* Regan 1903** Latin for banded, referring to dark longitudinal stripe along middle of sides

***Trichomycterus weyrauchi* (Fowler 1945)** in honor of German malacologist Wolfgang K. Weyrauch (1907–1970), who collected holotype

***Trichomycterus wiwa* Ardila Rodríguez 2018** named for the Wiwa, an indigenous community in Marocaso, Sierra Nevada de Santa Marta, Municipio de San Juan del Cesar, Departamento de la Guajira, Colombia, where this catfish appears to be endemic

***Trichomycterus yuska* Fernández & Schaefer 2003** native name for this catfish in northwest Argentina

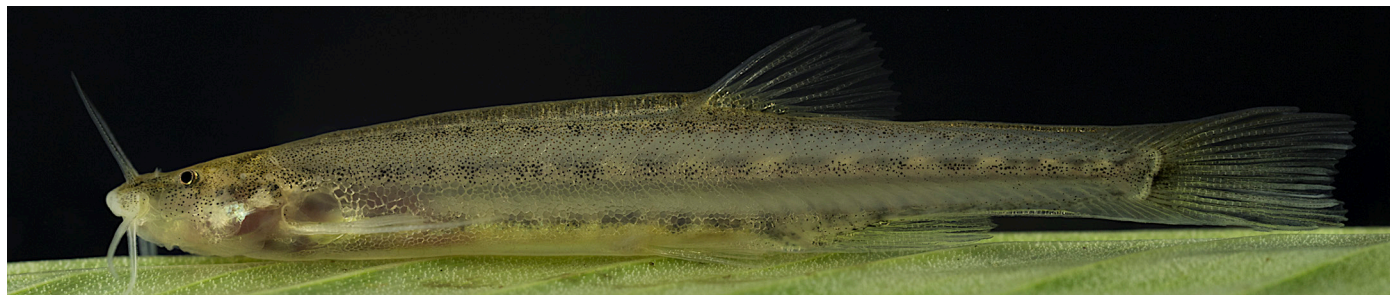
***Trichomycterus zapatoacaensis* Ardila Rodríguez 2023** *-ensis*, Latin suffix denoting place: the “beautiful” (translation) municipality of Zapatoaca, Departamento de Santander, Colombia, where type locality (Cueva del Nitro) is situated

Order SILURIFORMES

Atlantic Forest Trichomycterids

Family TRICHOMYCTERIDAE

Subfamily MICROCAMBEVINAE Costa, Henschel & Katz 2020



Microcambeva filamentosa, holotype, 31.4 mm SL. From: Costa, W. J. E. M., P. Vilaro and A. M. Katz. 2020. Sympatric sister species with divergent morphological features of psammophilic catfishes of the south-eastern Brazilian genus *Microcambeva* (Siluriformes: Trichomycteridae). *Zoologischer Anzeiger* 285: 12–17.

Listrura

de Pinna 1988

listron (Gr. λίστρον), shovel; *ourá* (Gr. οὐρά), tail, referring to numerous accessory rays on tail, which make the caudal region shovel-shaped

Subgenus *Listrura*

Listrura costai Villa-Verde, Lazzarotto & Lima 2012 in honor of Brazilian ichthyologist Wilson J. E. M. Costa (b. 1958), Universidade Federal do Rio de Janeiro, for significant contributions to neotropical ichthyology, including the study of trichomycterid catfishes

Listrura macaensis Costa & Katz 2021 *-ensis*, Latin suffix denoting place: Rio Macaé basin, Município de Rio das Ostras, Rio de Janeiro State, Brazil, only known area of occurrence

Listrura macacuensis Costa & Katz 2021 *-ensis*, Latin suffix denoting place: Rio Macacu basin, Município de Cachoeiras de Macacu, Rio de Janeiro State, Brazil, only known area of occurrence

Listrura menezesi Villa-Verde, de Pinna, Reis & Oyakawa 2022 in honor of Naércio Aquino Menezes (b. 1937), Museu de Zoologia da Universidade de São Paulo, for his “wide-ranging contributions to neotropical ichthyology and pivotal role in the development of ichthyology in Brazil. The dedication is compounded by his participation in the first expedition which discovered [this] new taxon.”

Listrura nematopteryx de Pinna 1988 *nēmatos* (Gr. νήματος), threaded; *ptéryx* (πτέρυξ), wing or fin, referring to its extremely narrow, one-rayed, filamentous pectoral fin

Listrura pinguabae Villa-Verde & Costa 2006 of Pinguaba, São Paulo State, Brazil, type locality

Subgenus *Paralistrura*

Costa & Katz 2021

para- (Gr. παρά), near, referring to its sister phylogenetic position to the subgenus *Listrura*

Listrura tetraradiata Landim & Costa 2002 *tetrá* (Gr. τετρά), four; *radiata* (L.), rayed, referring to four pectoral-fin rays, diagnostic of this species

Subgenus *Prolistrura*

Costa & Katz 2021

pro- (L.), before (but also used in the sense of “primitive,” referring to its phylogenetic position as sister to a clade including the other two subgenera of *Listrura*

Listrura boticario de Pinna & Wosiacki 2002 named for the O Boticario

Foundation, which owns and maintains the private nature preserve in Guaraqueçaba (Paraná State, Brazil), where this catfish was found

Listrura camposi (Miranda Ribeiro 1957) in honor of Brazilian ichthyologist Antonia Amaral Campos (1900–1952), Departamento de Zoologia da Secretaria da Agricultura do Estado de São Paulo, who collected holotype [preferably spelled *camposae* since name honors a woman, but ICZN 32.5.1 forbids such a correction]

Listrura depinnai Villa-Verde, Ferrer & Malabarba 2014 in honor of Brazilian ichthyologist Mário C. C. de Pinna, Universidade de São Paulo, for “significant” contributions to the knowledge of fish systematics, especially of trichomycterid catfishes

Listrura gyrynura Costa, Feltrin & Katz 2023 tadpole-tailed, from *gyrinos* (Gr. γυρίνος), tadpole, and *ourá* (Gr. οὐρά), tail, referring to the shape of its caudal fin and caudal peduncle, similar to that of a tadpole

Listrura urussanga Costa, Feltrin & Katz 2023 named for Lagoa Urussanga Velha, rio Urussanga basin, Santa Catarina, Brazil, near where type locality (a tributary stream) is situated; name is probably derived from a Tupi-Guarani word meaning “very cold water”

Microcambeva

Costa & Bockmann 1994

micro-, from *mikrós* (Gr. μικρός), small, referring to size of *M. barbata* (up to 2.6 cm SL); *cambeva*, vernacular name for trichomycterids in southern and southeastern Brazil, derived from the Tupi *a'kág*, head, and *pewa*, flat, referring dorsally flattened head



Listrura depinnai, holotype, 30.8 mm SL. From: Villa-Verde, L., J. Ferrer and L. R. Malabarba. 2014. A new species of *Listrura* from Laguna dos Patos system, Brazil: the southernmost record of the Glanapteryginae (Siluriformes: Trichomycteridae). *Copeia* 2013 (4): 641–646.

Subgenus *Microcambeva*

***Microcambeva barbata* Costa & Bockmann 1994** Latin for bearded, referring to pair of barbel-like structures on ventral surface of head, a condition then recorded only from *Malacoglanis gelatinosus* and one specimen of *Stenoclimus sarmientoi*

***Microcambeva draco* Mattos & Lima 2010** dragon, from *drákōn* (Gr. δράκων), dragon, referring to the dragon-like “aspect” of its head

***Microcambeva jucuensis* Costa, Katz, Mattos & Rangel-Pereira 2019** *-ensis*, Latin suffix denoting place: rio Jucu basin, Viana, Espírito Santo, Brazil, only known area of occurrence

***Microcambeva mucuriensis* Costa, Katz, Mattos & Rangel-Pereira 2019** *-ensis*, Latin suffix denoting place: rio Mucuri, Mucuri, Bahia, Brazil, only known area of occurrence

***Microcambeva watu* Medeiros, Sarmento-Soares & Lima 2021** Krenak (indigenous people who live on the margins of the rio Doce, at Aymorés, Minas Gerais, Brazil) name for the rio Doce, meaning “sacred big river”; in Krenak cosmogony, natural elements (e.g., rivers, mountains, trees, caves) have a mythological aspect, and one of the most important natural elements is Watu, the river where this catfish occurs

Subgenus *Pterocambeva*
Costa & Katz 2021

ptero, from *pterón* (Gr. πτερόν), wing or fin, referring to broad and slightly curved margin of first pectoral-fin ray¹, resembling a bird wing, with deep gaps on the fin membrane resembling feathers; *cambeva* (see nominate genus)

***Microcambeva bendego* Medeiros, Moreira, de Pinna & Lima 2020** named for Bendegó, the second-largest meteorite discovered in Brazil; found in 1794, it was transported to the Museu Nacional in 1888, where it survived a devastating fire in 2018 and remained intact at the main entrance of the museum, where it was seen by the crowd that gathered the day after the fire, “becoming a symbol of the resistance of the institution,” an “homage” to the museum’s employees and students, and an allusion to the “resilience” of this catfish in the Atlantic Forest basin, which is severely impacted by anthropogenic actions (also, holotype is housed at the Museu Nacional, whose fish collection, kept elsewhere, was not affected by the fire) [see essay below]

***Microcambeva ribeirae* Costa, Lima & Bizerril 2004** of the rio Ribeira do Iguape basin, southeastern Brazil, type locality

Subgenus *Trichocambeva*
Costa & Katz 2021

trichós (Gr. τριχός), genitive singular of *thrix* (θρίξ), hair, referring to long barbels and long pectoral-fin filament; *cambeva* (see nominate genus)

***Microcambeva filamentosa* Costa, Katz & Vilardo 2020** Latin for filamentous, referring to its long barbels and pectoral-fin filament, unique among congeners

¹ Wilson J. E. M. Costa, pers. comm.

The meteorite, the museum, the fire, and the catfish

The Bendegó meteorite is the second-largest meteorite found in Brazil. It was discovered in 1784 by a boy who was grazing cattle on a farm near the present town of Monte Santo in Bahia State. Based on the four-inch layer of oxidation upon which it rested, it had crashed to Earth thousands of years prior. Moving it was difficult due to its weight (5,360 kg). It fell off a cart, down a hill, and into a dry stream bed 180 meters away from where it was found. It remained there until 1888, when it was recovered and brought to the Museu Nacional — the National Museum of Brazil in Rio de Janeiro — in 1888.

The Museu Nacional, founded in 1818, is Brazil’s oldest scientific institution. The main building — the “palace” — was originally the residence of the Portuguese royal family between 1808 and 1821. It was converted for museum use in 1892. Over the decades it amassed a vast collection with more than 20 natural history and anthropological artifacts, and a scientific library of over 470,000 volumes and rare works. The collection was the principal research center for Brazilian paleontologists, botanists, anthropologists, archaeologists, ethnologists, and zoologists.

The “palace” was destroyed in a fire on the night of 2 September 2018. Faced with budget cuts — including 90% of its maintenance budget — the museum had fallen into disrepair. Peeling paint, termites and exposed wiring were among its many problems. Critics called it a “firetrap.” And it was. The fire began in the air-conditioning system of the auditorium on the ground floor when an exposed wire came in contact with metal. The museum lacked a sprinkler system and firefighters were hindered by poor water pressure in nearby fire hydrants. To fight the blaze they had to pump water from a nearby lake.

Approximately 92.5% of the museum’s collection was destroyed. (The fish and reptile collections and the herbarium, housed off-site, were not affected.) The building was uninsured. The Bendegó meteorite survived the fire due to its inherent fire resistance. *Microcambeva bendego*, a translucent, sand-loving catfish, first collected in 2016, is named for the meteorite. The authors wrote:

“Even though part of the building collapsed, the Bendegó remained intact at the main entrance of the museum, where it was seen by the crowd that gathered the day after the fire, becoming a symbol of the resistance of the institution. This is not only an homage to the MNRJ [Museu Nacional, Universidade Federal do Rio de Janeiro], its employees and students, but also an allusion to the resilience of the species herein described in Atlantic Forest basin severely impacted by anthropic actions.”

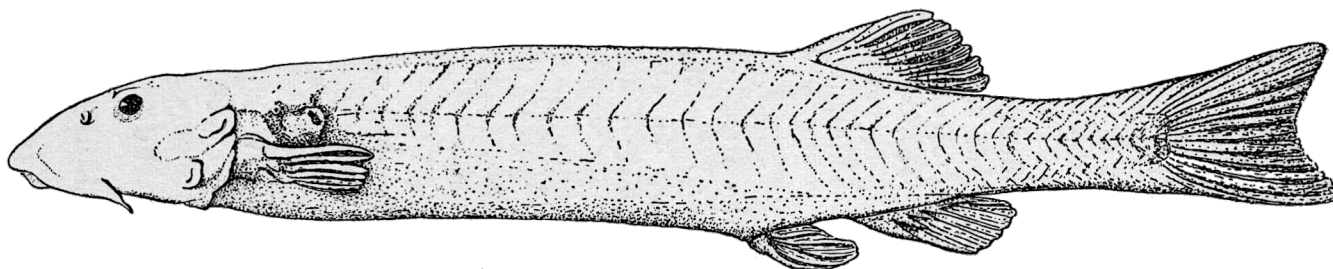
The museum, funded in part by donations from all over the world, is being rebuilt. But nothing can replace the 200 years of work, research, knowledge, and priceless artifacts that were lost.

Order SILURIFORMES

Candirus or Hematophagous Catfishes

Family TRICHOMYCTERIDAE

Subfamily VANDELLIINAE Bleeker 1862



Paracanthopoma parva, holotype, 31.4 mm SL. From: Giltay, L. 1935. Notes ichthyologiques. X. Description d'une espèce nouvelle de Trichomycteridae. Bulletin du Musée Royal d'Histoire Naturelle de Belgique v. 11 (27): 1–3.

Paracanthopoma

Giltay 1935

pará (Gr. παρά), near, referring to similarity to *Acanthopoma* (Stegophilinae), both of which possess united gill membranes that are free from the isthmus

***Paracanthopoma ahriman* de Pinna & Dagosta 2022** named for Ahri-man, Persian name of Angra Mainyu, the maker of snakes, demons and all things evil from a human standpoint (thus, presumably also candirus) in the Zoroastrian religion, approximately equivalent to, and probably historical ancestor of, the devil in Abrahamic mythology

***Paracanthopoma alleynei* (Henschel, Bernt, Baskin, Schmidt & Lujan 2021)** in honor of "Mr. Alleyne," who owned the land where collectors of the type specimens camped; he was a "reliable and considerate guide during this and other fieldwork"

***Paracanthopoma cangussu* Henschel, Katz & Costa 2021** named for the Canguçu Research Centre, managed by the Federal University of Tocantins (Brazil), for their support of the authors' study

***Paracanthopoma capeta* de Pinna & Dagosta 2022** Portuguese vernacular (probably a combination of *capa*, cape, and *-eta*, a diminutive suffix) meaning the devil (i.e., an evil fish from a human standpoint)

***Paracanthopoma carrapata* de Pinna & Dagosta 2022** feminine declension of *carrapato*, Portuguese name for bloodsucking ticks in general, alluding to this catfish's hematophagous habits

***Paracanthopoma daemon* de Pinna & Dagosta 2022** from *daimōn* (Gr. δαίμων), "supernatural entities hierarchically between gods and mortals, including inferior divinities and ghosts of some dead men," i.e., a demonic fish from a human standpoint

***Paracanthopoma irritans* de Pinna & Dagosta 2022** Latin for irritating, taken from the name of the human flea, *Pulex irritans*, also a hematophagous species

***Paracanthopoma malevola* de Pinna & Dagosta 2022** Latin for ill-disposed or inimical, i.e., an unfriendly fish from a human standpoint

***Paracanthopoma parva* Giltay 1935** Latin for small, described at 25 mm

***Paracanthopoma saci* Dagosta & de Pinna 2021** named for the SACI expedition (South American Characiform Inventory), which collected the first known specimen of this catfish; "Appropriately, Saci is also the name of a Brazilian rural folklore supernatural entity (complete name: saci-pererê), personified as a nocturnal, one-legged, hopping, red-capped, pipe-smoking black boy, transmutable into dust devils and fond of mischievous deeds aimed at terrorizing or annoying people and other animals," presumably a nod to the fish's hematophagous habits

***Paracanthopoma satanica* de Pinna & Dagosta 2022** derived from the Hebrew verb *satan*, meaning literally "to oppose" but commonly used to refer to an enemy or the devil (i.e., an unfriendly or evil fish from a human standpoint)

***Paracanthopoma truculenta* de Pinna & Dagosta 2022** Latin for harsh, cruel or brutish, alluding to its size, the largest species of this hematophagous genus

***Paracanthopoma vampyra* de Pinna & Dagosta 2022** Latinization of the Slavic *wampir*, a blood-sucking ghost or demon, referring to its hematophagous habits

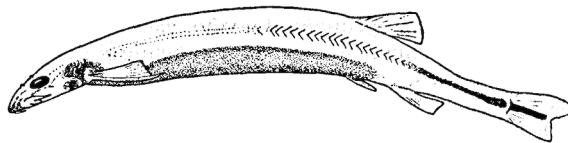
Paravandellia

Miranda Ribeiro 1912

pará (Gr. παρά), near, i.e., considered intermediate between *Stegophilus* and *Vandellia* (yet described as having the general appearance of the former)

***Paravandellia oxyptera* Miranda Ribeiro 1912** sharp-finned, from *oxýs* (Gr. ὄξύς), and *ptera*, from *pterón* (Gr. πτερόν) or *ptéryx* (πτέρυξ), fin, presumably referring to its large, falcate pectoral fins

***Paravandellia phaneronema* (Miles 1943)** *phanerós* (Gr. φανερός), visible; *nēma* (Gr. νῆμα), thread, referring to larger and therefore more visible lower maxillary barbels compared with *Branchioica bertonii* (= *P. oxyptera*)



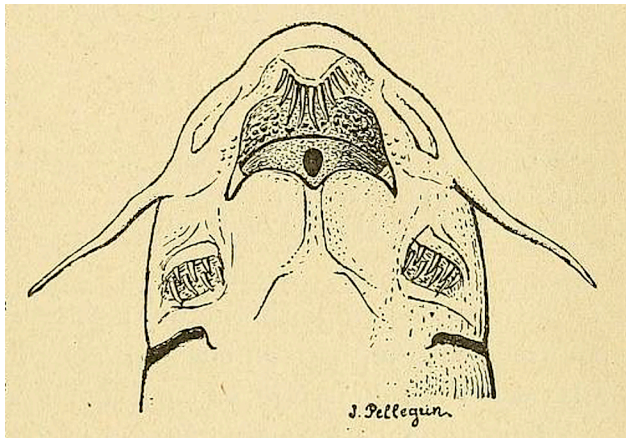
Paravandellia phaneronema, holotype. From: Miles, C. 1943. Estudio economico y ecologico de los peces de agua dulce del valle de Cauca. Publicaciones de la Secretaria de Agricultura y Fomento del Departamento, Cali 1943: 1–99, 1 pl.

Plectrochilus

Miranda Ribeiro 1917

pléktron, (Gr. πλῆκτρον), spur, or a tool for plucking or striking a stringed instrument; *chilos*, from *cheílos* (Gr. χεῖλος), lip, allusion not explained, perhaps referring to "intermaxillaries with three erect subtriangular spines, curved at the base along their length, emerging from a small pocket at the lip near the base of the barbel" (translation)

***Plectrochilus diabolicus* (Myers 1927)** Latin for devilish or diabolical, referring to its parasitic habits; holotype had burrowed through body wall and into belly of a large river catfish (*Pseudoplatystoma*), where it was distended with blood



Plectrochilus wieneri, underside of head. Illustration by Jacques Pellegrin. From: Pellegrin, J. 1909. Les poissons du genre *Vandellia* C. V. Bulletin de la Société philomathique de Paris (10th Série) 1 (4–6): 197–204.

***Plectrochilus machadoi* Miranda Ribeiro 1917** in honor of Rev. Francisco Machado da Silva, who collected for and/or donated specimens to the Museo Urbis of Rio de Janeiro, including holotype of this species

***Plectrochilus wieneri* (Pellegrin 1909)** in honor of Charles Wiener (1851–1913), Austrian-French explorer, linguist and diplomat (“ministre plénipotentiaire”), who collected holotype

Vandellia

Valenciennes 1846

-ia (L. suffix), belonging to: Italian naturalist Domenico Agostino Vandelli (1735–1816), who sent type specimens of *V. cirrhosa* (mixed in with other catfishes) to Lacépède in 1808

***Vandellia beccarii* Di Caporiacco 1935** in honor of Italian biologist Nello Beccari (1883–1957), who collected holotype

***Vandellia cirrhosa* Valenciennes 1846** Latin for curled, allusion not explained, perhaps referring to “fleshy barbel” (translation) at corners of mouth



Vandellia cirrhosa. Illustration by Paul Louis Oudart. From: Cuvier, G. and A. Valenciennes. 1846. Histoire naturelle des poissons. Tome dix-huitième. Suite du livre dix-huitième. Cyprinoides. Livre dix-neuvième. Des Ésoques ou Lucioïdes. v. 18: i–xix + 2 pp. + 1–505 + 2 pp., Pls. 520–553. [Valenciennes authored volume.]

***Vandellia sanguinea* Eigenmann 1917** Latin for blood-red or bloody; a hematophagous species described as “translucent,” but Eigenmann later noted (1918¹) how the alimentary canal was “gorged with blood,” so perhaps it appears blood-red after having eaten

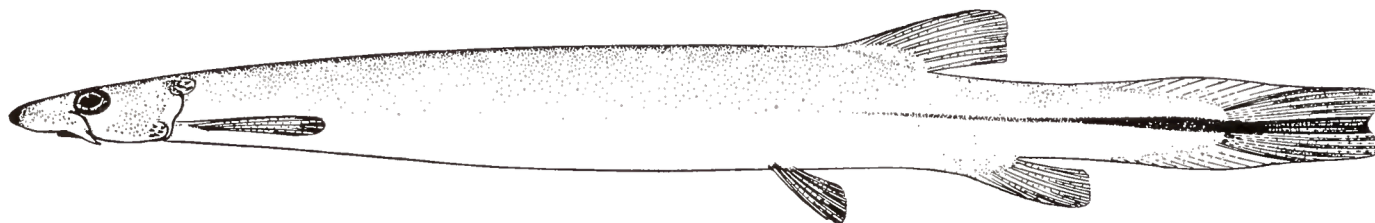
¹ Eigenmann, C. H. 1918. The Pygidiidae, a family of South American catfishes. Memoirs of the Carnegie Museum 7 (5): 259–398, Pls. 36–56.

Order SILURIFORMES

Parasitic Catfishes

Family TRICHOMYCTERIDAE

Subfamily STEGOPHILINAE Günther 1864



First-published image of *Haemomaster venezuelae* (paratype). Illustration by Pablo Bravo. From: Myers, G. S. 1944. Two extraordinary new blind nematognath fishes from the Rio Negro, representing a new subfamily of Pygidiidae, with a rearrangement of the genera of the family, and illustrations of some previously described genera and species from Venezuela and Brazil. *Proceedings of the California Academy of Sciences* (Series 4) 23 (40): 591–602, Pls. 52–56.

Acanthopoma

Lütken 1892

acantho-, from *ákantha* (Gr. ἄκανθα), thorn; *póma* (Gr. πῶμα), lid or cover, i.e., opercle; referring to numerous opercular and interopercular spines

***Acanthopoma annectens* Lütken 1892** Latin for linking or joining, hypothesized by Lütken to represent an intermediate in form between the subfamilies Pygidiinae (=Trichomycterinae) and Stegophilinae



Acanthopoma annectens. From: Lütken, C. F. 1892. Om en med stegophiler og trichomycterer beslaegtet sydamerikansk mallefisk (*Acanthopoma annectens* Ltk. n. g. & sp.?). *Videnskabelige Meddelelser fra den Naturhistoriske Forening i Kjøbenhavn, Aaret 1891*: 53–60.

Apomatoceros

Eigenmann 1922

á-, Greek privative, i.e., without; *pómatos* (Gr. πώματος), genitive of *póma* (Gr. πῶμα), lid or cover, i.e., opercle; *ceros*, from *kerás* (Gr. κέρας), horn, referring to absence of opercular spines as in *Acanthopoma*

***Apomatoceros alleni* Eigenmann 1922** in honor of zoologist William Ray Allen (1885–1955), Indiana University, who collected holotype



Apomatoceros alleni, holotype. From: Eigenmann, C. H. 1922. On a new genus and two new species of Pygidiidae, a family of South American nematognaths. *Bijdragen tot de Dierkunde* 22: 113–114, Pls. 3–4.

Haemomaster

Myers 1927

haemo-, from *haimo-* (Gr. αἴμο-), blood; *mastér* (Gr. μαστήρ), seeker, referring to its hematophagous or parasitic habits

***Haemomaster venezuelae* Myers 1927** of Venezuela, where type locality (Playa Matepalma, Orinoco River system) is situated

Henonemus

Eigenmann & Ward 1907

henós (Gr. ἐνός), one; *néma* (Gr. νῆμα), thread, referring to single maxillary barbel

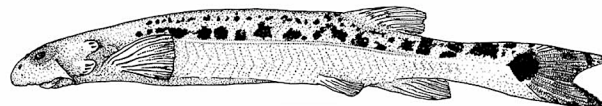
***Henonemus intermedius* (Eigenmann & Eigenmann 1889)** Latin for intermediate; per Eigenmann & Eigenmann (1890¹), “found in a region intermediate between the localities where [*H.*] *punctatus* and [*Pseudo-stegophilus*] *maculatus* are found [combining] in a remarkable way the characters of those species”

***Henonemus macrops* (Steindachner 1882)** *macro-*, from *makrós* (Gr. μακρός), long or large; *óps* (Gr. ὤψ), eye, presumably referring to larger eyes compared to its presumed congener at the time, *Ochmacanthus reinhardtii*, described in the same paper

***Henonemus punctatus* (Boulenger 1887)** Latin for spotted, referring to numerous small brown spots on body

***Henonemus taxistigma* (Fowler 1914)** *táxis* (Gr. τάξις), row; *stigma*, from *stigma* (Gr. στίγμα) or *stigmé* (στιγμή), mark or spot, referring to series of large dark blotches along lateral line

***Henonemus triacanthopomus* DoNascimento & Provenzano 2006** *tri-* (L.), three; *acantho-*, from *ákantha* (Gr. ἄκανθα), thorn; *póma* (Gr. πῶμα), lid or cover, i.e., opercle, referring to maximum number (3) of odontodes found in both opercles in adult specimens, apparently unique in the genus



Henonemus triacanthopomus, holotype, 82 mm SL. Illustration by O. Villarreal. From: DoNascimento, C. and F. Provenzano. 2006. The genus *Henonemus* (Siluriformes: Trichomycteridae) with a description of a new species from Venezuela. *Copeia* 2006 (2): 198–205.

Homodiaetus

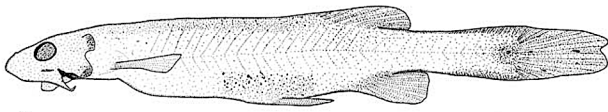
Eigenmann & Ward 1907

homós (Gr. ὁμός), same; *diaetus*, from *diaeta* (L.), diet or regimen, in turn from *diaita* (Gr. διαίτα), way of living, “living or eating with others” (per Eigenmann 1918²), referring to the “known parasitic habits of some of its [*H. anisitsi*] relatives”

***Homodiaetus anisitsi* Eigenmann & Ward 1907** in honor of Hungarian-born Paraguayan botanist and collector Juan Daniel Anisits (1856–1911),

¹ Eigenmann, C. H. and R. S. Eigenmann. 1890. A revision of the South American Nematognath or cat-fishes. *Occasional Papers California Academy of Sciences* No. 1: 1–508 + errata and map.

² Eigenmann, C. H. 1918. The Pygidiidae, a family of South American catfishes. *Memoirs of the Carnegie Museum* 7 (5): 259–398, Pls. 36–56.



Homodiaetus banguela, holotype, 31.8 mm SL. From: Koch, W. R. 2002. Revisão taxonômica do gênero *Homodiaetus* (Teleostei, Siluriformes, Trichomycteridae). Iheringia, Série Zoologia (Porto Alegre) 92 (3): 33–46.

National University of Paraguay, who provided Indiana University with a “well-preserved” collection of fishes, including holotype of this one

***Homodiaetus banguela* Koch 2002** Portuguese for toothless, referring to absence of teeth in the fifth ceratobranchial

***Homodiaetus graciosa* Koch 2002** named for Serra da Graciosa, Paraná, São Paulo, Brazil, one of the areas where it occurs

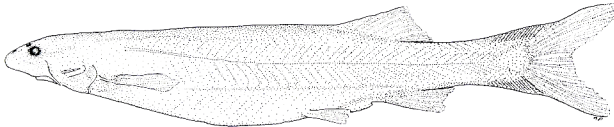
***Homodiaetus passarellii* (Miranda Ribeiro 1944)** in honor of Antônio Passarelli Filho, who collected specimens for the Museu Nacional (Rio de Janeiro, Brazil), including holotype of this catfish

Megalocentor

de Pinna & Britski 1991

megalo-, from *mégas* (Gr. μέγας), big; *centor*, Latinization of *kentēō* (Gr. κεντέω), sting or spur, referring to hypertrophied single interopercular odontode, proportionally larger than any other trichomycterid

***Megalocentor echthrus* de Pinna & Britski 1991** *echthros* (Gr. ἐχθρός), hated or hateful, referring to its parasitic habits (frequently taken from the bodies of other fishes)



Megalocentor echthrus, holotype, 70.9 mm SL. Illustration by Mário C. C. de Pinna. From: de Pinna, M. C. C. and H. A. Britski. 1991. *Megalocentor*, a new genus of parasitic catfish from the Amazon basin: the sister group of *Apomatoceros* (Trichomycteridae: Stegophilinae). Ichthyological Exploration of Freshwaters 2 (2): 113–128.

Ochmacanthus

Eigenmann 1912

ochma (Gr. ὄχμος), series; *acanthus*, from *ákantha* (Gr. ἄκανθα), thorn, presumably referring to nine “claw-like erectile” spines on preopercle, and nine similar spines on opercle above and behind the gill-opening of *O. flabilliferus*

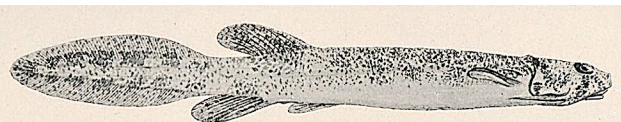
***Ochmacanthus alternus* Myers 1927** Latin for one after the other, referring to its color pattern, with large, irregular, blotches alternating with narrow interspaces

***Ochmacanthus batrachostoma* (Miranda Ribeiro 1912)** *batrachus*, from *bátrachos* (Gr. βάτραχος), frog; *stóma* (Gr. στόμα), mouth, allusion not explained, perhaps referring to its very wide mouth

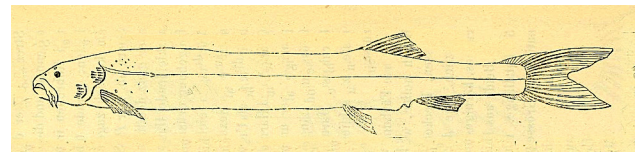
***Ochmacanthus flabilliferus* Eigenmann 1912** *flabellum* (L.), a small fan; *fero* (L.), to have or bear, allusion not explained, perhaps referring to “fully developed caudal rays much diverging from a narrow base,” thereby forming a fan-like tail

***Ochmacanthus orinoco* Myers 1927** named for the Orinoco River basin of Venezuela, type locality

***Ochmacanthus reinhardtii* (Steindachner 1882)** in honor of Danish zoologist Johannes Theodor Reinhardt (1816–1882), who proposed *Stegophilus* (original genus for this species) in 1859



Ochmacanthus batrachostoma. From: Miranda Ribeiro, A. de. 1912. Loricariidae, Callichthyidae, Doradidae e Trichomycteridae. In: Comissão de Linhas Telegraficas Estrategicas de Matto-Grosso ao Amazonas. Anexo no. 5: 1–31, 1 pl.



Pareiodon microps. From: Kner, R. 1855. Ichthyologische Beiträge [Subtitles I-III]. Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe 17: 92–162, Pls. 1–6.

Pareiodon

Kner 1855

pareiá (Gr. παρειά) cheek; *odon*, Latinized and grammatically adjusted from the Greek nominative ὀδοῦς (*odoús*), tooth, referring to its small opercular and interopercular spines

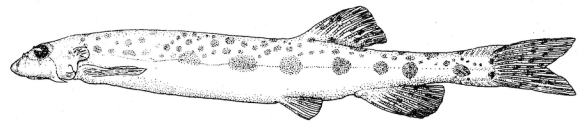
***Pareiodon microps* Kner 1855** *micro-*, from *mikrós* (Gr. μικρός), small; *óps* (Gr. ὄψ), eye, referring to its minute eye, ~13 times in length of head

Pseudostegophilus

Eigenmann & Eigenmann 1889

pseudo-, from *pseúdēs* (Gr. ψεύδης), false, i.e., although this genus may resemble (and was previously placed in) *Stegophilus*, such an appearance is false

***Pseudostegophilus haemomyzon* (Myers 1942)** *haemo-*, from *haimo-* (Gr. αἴμο-), blood; *myzon*, from *mýzō* (Gr. μύζω), to suck, referring to its hematophagous or parasitic habits



Pseudostegophilus haemomyzon, holotype, 57 mm SL. Illustration by Helen Nojiri. From: Myers, G. S. 1942. Studies on South American fresh-water fishes. I. Stanford Ichthyological Bulletin 2 (4): 89–114.

***Pseudostegophilus maculatus* (Steindachner 1879)** Latin for spotted, referring to dark violet spots on upper half of body and larger spots on back just behind dorsal fin

***Pseudostegophilus nemurus* (Günther 1869)** thread-tailed, from *néma* (Gr. νῆμα), thread, and *ourá* (Gr. οὐρά), tail, referring to filamentous upper lobe of caudal fin

***Pseudostegophilus paulensis* Miranda Ribeiro 1918** *-ensis*, Latin suffix denoting place: São Paulo, Brazil, type locality

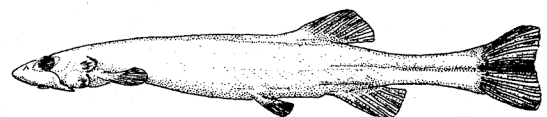
Schultzichthys

Dahl 1960

in honor of American ichthyologist Leonard P. Schultz (1901–1986), Curator of Fishes, U.S. National Museum, for his contributions to the knowledge of the fishes of northern South America; *ichthys* (Gr. ἰχθύς), fish

***Schultzichthys bondi* (Myers 1942)** in honor of American biologist Franklyn F. Bond (1897–1946), University of Rochester (Rochester, New York, USA), who collected holotype while researching mosquito-control fishes in Venezuela

***Schultzichthys gracilis* Dahl 1960** Latin for thin or slender, referring to its “slender form”



Schultzichthys bondi, holotype, 36.5 mm SL. Illustration by Helen Nojiri. See *Pseudostegophilus haemomyzon* caption for source.

Stegophilus

Reinhardt 1859

stégō (Gr. στέγω), to cover; *philos* (Gr. φίλος), friend or fond of, referring to its living in the gill cavity of large catfishes, where it feeds on blood in the gills

***Stegophilus insidiosus* Reinhardt 1859** Latin for insidious (i.e., causing harm in a way that is gradual or not easily noticed), referring to its parasitic feeding habits on the gills of large catfishes

***Stegophilus panzeri* (Ahl 1931)** in honor of entomologist Werner Panzer (1901–1976), graduate student and travel companion of German zoologist Hans Böker (1886–1939), the latter who collected holotype

***Stegophilus septentrionalis* Myers 1927** Latin for northern, referring to its distribution compared with *S. insidiosus*, the only known congener at the time



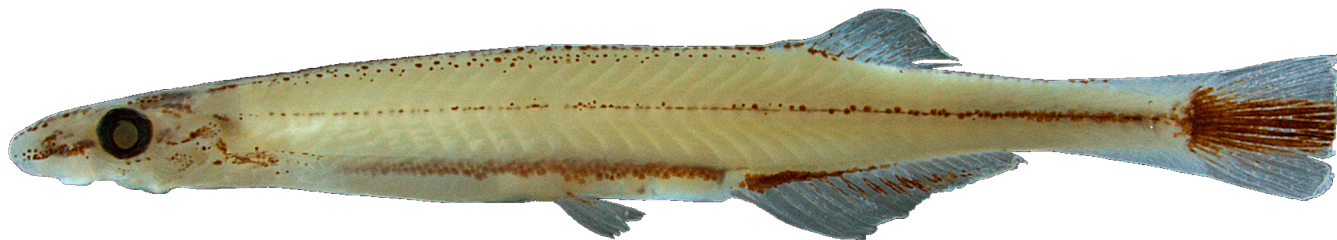
Stegophilus insidiosus. From: Reinhardt, J. T. 1859. *Stegophilus insidiosus*, en ny mallefisk fra Brasilien og dens Levemaade. Videnskabelige Meddelelser fra den Naturhistoriske Forening i Kjøbenhavn, Aaret 1858: 79–97, Pl. 2.

Order SILURIFORMES

Tiny Pencil Catfishes

Family TRICHOMYCTERIDAE

Subfamily TRIDENTINAE Eigenmann 1918



Rhinotridens chromocaudatus, holotype, 17.57 mm SL. From: Datovo, A., L. Ochoa, G. Vita, P. Presti, W. M. Ohara and M. C. C. de Pinna. 2023. A new genus and species of miniature tridentine catfish from the Amazon basin (Siluriformes: Trichomycteridae). Neotropical Ichthyology 21 (3): e230076: 1–22.

Miuroglanis

Eigenmann & Eigenmann 1889

meiouros (Gr. μειονρος), to lessen or diminish (i.e., curtailed), allusion not explained, perhaps referring to short, compressed and rather deep body; *glanis*, ancient name for a silurid catfish (probably *Silurus aristotelis*) dating to Aristotle, often used as a general term for catfish

***Miuroglanis platycephalus* Eigenmann & Eigenmann 1889** flat-headed, from *platys* (Gr. πλατύς), flat, and *kephalé* (Gr. κεφαλή), head, referring to its “greatly depressed” head



Miuroglanis platycephalus, holotype, MCZ 8172. © President and Fellows of Harvard College.

Rhinotridens

Datovo, Ochoa, Vita, Presti, Ohara & de Pinna 2023

rhinos (Gr. ῥινός), genitive of *rhís* (ῥίς), nose, referring to its “conspicuous” rostral protuberance; *Tridens*, type genus of subfamily

***Rhinotridens chromocaudatus* Datovo, Ochoa, Vita, Presti, Ohara & de Pinna 2023** *chrōma* (Gr. χρώμα), skin or color; *caudatus* (L.), tailed, referring to dark-brown pigmentation in middle of caudal fin

Tridens

Eigenmann & Eigenmann 1889

tri- (L.), three; *dens* (L.), tooth, presumably referring to three “trident shaped” spines on opercle of *T. melanops*

***Tridens chicomendesi* Henschel & Costa 2023** in honor of Francisco Alves “Chico” Mendes (1944–1988), Brazilian rubber tapper and union leader who fought to preserve the Amazonian rainforest, and who was born and lived in Xapuri, Acre State, Brazil, where this species occurs; he was assassinated by a rancher whom he had prevented from logging a protected area, while gaining a warrant for the rancher’s arrest for a murder committed elsewhere [see essay, next page]



Tridens vitreus, paratype, 16.2 mm SL, coloration in alcohol. White arrow indicates long fleshy membranous ridge anterior to urogenital opening. From: Henschel, E., W. M. Ohara and W. J. E. M. Costa. 2023. Two new miniature translucent catfish species of the rare genus *Tridens* (Siluriformes: Trichomycteridae) from the Madeira River basin, northern Brazil. Journal of Fish Biology 103 (1): 155–171.

***Tridens melanops* Eigenmann & Eigenmann 1889** *mélanos* (Gr. μέλας), genitive of *mélas* (μέλας), black; *óps* (Gr. ὄψ), eye, face or countenance, presumably referring to black spots along base of anal fin and/or dusky posterior half of caudal fin

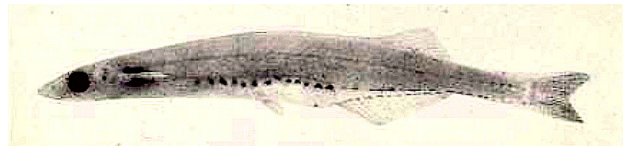
***Tridens vitreus* Henschel, Ohara & Costa 2023** Latin for glassy or translucent, referring to its transparent head and body in life

Tridensimilis

Schultz 1944

Latin for like or resembling, i.e., similar to *Tridens*

***Tridensimilis venezuelae* Schultz 1944** of Venezuela, where type locality (Río Negro, below the mouth of the Río Yasa) is situated



Tridensimilis venezuelae, holotype, 19.5 mm SL. From: Schultz, L. P. 1944. The catfishes of Venezuela, with descriptions of thirty-eight new forms. Proceedings of the United States National Museum 94 (3172): 173–338, Pls. 1–14.

Tridentopsis

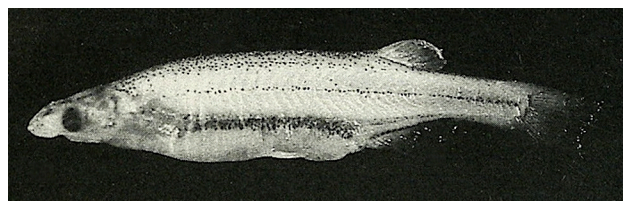
Myers 1925

ópsis (Gr. ὄψις), appearance: similar to the closely related *Tridens*

***Tridentopsis brevis* (Eigenmann & Eigenmann 1889)** Latin for short, referring to its “short and deep” body, shorter than *Tridens melanops*, its presumed congener at the time

***Tridentopsis cahuali* Azpelicueta 1990** of Cahual, name of aboriginal Araucanian (Mapuche) chief and name of private protected area in Argentina where types were collected

***Tridentopsis pearsoni* Myers 1925** in honor of American ichthyologist Nathan Everett Pearson (1895–1982), Indiana University, who collected 6,775 fish specimens in Bolivia in 1921–1922, including holotype of this species

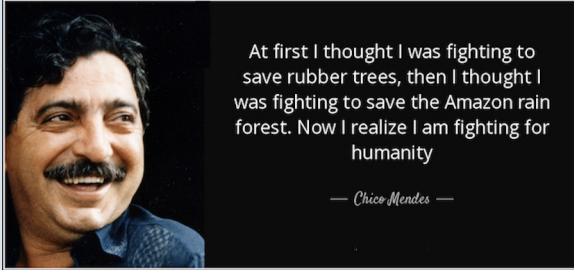


Tridentopsis cahuali, holotype, 20.8 mm SL. From: Azpelicueta, M. de las M. 1990. *Tridentopsis cahuali* n. sp. (Siluriformes, Trichomycteridae), a new miniature tridentine from Paraguay System, in Argentina. Revue Suisse de Zoologie 97 (4): 981–988.

Tridentopsis tocantinsi La Monte 1939 of rio Tocantins, Goiás State, Brazil, type locality

In honor of Chico Mendes (1944–1988)

Human-rights advocate Francisco Alves Mendes — known the world over as Chico Mendes — was born 15 December 1944 in Xapuri, Acre State, Brazil. He began work as a rubber tapper at age 9. By the mid 1980, Mendes had developed a keen awareness of the injustice imposed by wealthy rubber barons who owned the rainforest lands. He organized



At first I thought I was fighting to save rubber trees, then I thought I was fighting to save the Amazon rain forest. Now I realize I am fighting for humanity

— Chico Mendes —

plantation workers into labor unions, and persuaded tappers to form cooperative businesses in which they could sell the latex themselves, eliminating the bosses and other middlemen who kept most of the profit. The rubber barons, with deep ties to corrupt politicians and police departments, fought back, often with violence.

Mendes also realized that the rainforest itself was being destroyed, mainly through cattle ranching. When direct appeals to the Brazilian government failed, Mendes and his fellow tappers formed *empates*, or blockades, to prevent the destruction of trees. Ranchers retaliated. Even more violence ensued. Mendes feared for his life. In 1988, he said he would not live until Christmas. On 22 December, he was gunned down 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.

The assassination of Chico Mendes made international headlines, and led to an outpouring of support for the rubber tappers' and environmental movements. Thanks in part to the media attention surrounding the murder, the Chico Mendes Extractive Reserve was created in the area where he lived.

Three fishes have been named in honor of Chico Mendes. Not surprisingly, all are from the South American rainforest. In 1994, Uwe Römer described *Apistogramma mendezi* (using Spanish instead of Portuguese spelling), a dwarf cichlid from the Rio Negro drainage of Brazil. Römer said Mendes “spoke vigorously for the preservation” of Brazilian rainforests and was murdered “just when his efforts were beginning to bear fruit.”

In 2004, Jorge Rafael Casciotta and Adriana Edith Almirón described *Astyanax chico*, a characin from the San Francisco River basin of Argentina and Bolivia. They described Mendes simply: “a defender of the Amazonian rainforest.”

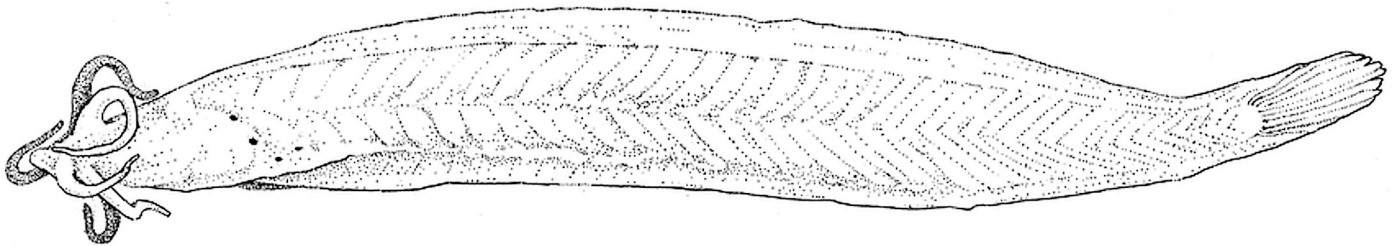
In 2023, Elisabeth Henschel and Wilson J. E. M. Costa named *Tridens chicomendesi*, a trichomycterid catfish. The species occurs in Xapuri, Acre State, Brazil, where Mendes was born and where he lived.

Order SILURIFORMES

Miniature Pencil Catfishes

Family **TRICHOMYCTERIDAE**

Subfamily **GLANAPTERYGINAE** Myers 1944



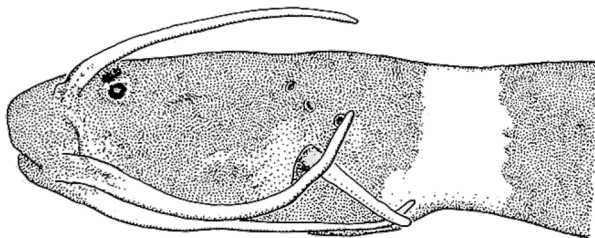
Pygidianops cuao, holotype, 21.06 mm SL. From: Schaefer, S. A., F. Provenzano, M. C. C. de Pinna and J. N. Baskin. 2005. New and noteworthy Venezuelan glanapterygine catfishes (Siluriformes, Trichomycteridae), with discussion of their biogeography and psammophily. American Museum Novitates No. 3496: 1–27.

Glanapteryx
Myers 1927

glanis, ancient name for a silurid catfish (probably *Silurus aristotelis*) dating to Aristotle, often used as a general term for catfish; α -, Greek privative, i.e., without; *pteryx* (Gr. πτέρυξ), wing or fin, described as “wholly finless excepting for small rudimentary pectoral and pelvic flaps and a caudal fringe”

***Glanapteryx anguilla* Myers 1927** Latin for eel, referring to its eel-like shape (holotype was found in a vial full of juvenile Swamp Eel *Synbranchus marmoratus*)

***Glanapteryx niobium* de Pinna 1998** named for the naturally occurring chemical element (Nb) responsible for the high background radiation of the Morro dos Seis Lagos (Amazonas, Brazil), where this catfish is the only known fish species



Glanapteryx niobium, holotype, 55.3 mm SL, lateral view of head. From: de Pinna, M. C. C. 1998. A new species of the catfish genus *Glanapteryx* (Siluriformes: Trichomycteridae). Proceedings of the Biological Society of Washington 111 (1): 35–42.

Potamoglanis

Henschel, Mattos, Katz & Costa 2018

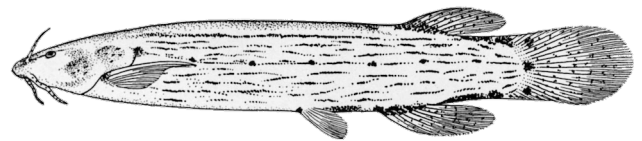
potamós (Gr. ποταμός), river, or the gods of rivers in Greek mythology, allusion not explained but all included species occur in rivers; *glanis*, ancient name for a silurid catfish (probably *Silurus aristotelis*) dating to Aristotle, often used as a general term for catfish

***Potamoglanis anhangá* (Dutra, Wosiacki & de Pinna 2012)** named for the Amazonian Anhangá legend, a spirit that lives in the woods and protects forest life; its presence can be detected by a whistle and, thereafter, the animal that was being hunted disappears

***Potamoglanis hasemani* (Eigenmann 1914)** 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

***Potamoglanis johnsoni* (Fowler 1932)** in honor of Eldridge Reeves Fenimore Johnson (1899–1986), a Trustee of the Academy of Natural Sciences of Philadelphia, “through whose cooperation and direction the Academy was represented” on the Matto Grosso Expedition to Brazil, during which holotype was collected

***Potamoglanis wapixana* (Henschel 2016)** named for the Wapixana (also spelled Wapichan and Wapishana), a native tribe from the Serra da Lua region in western Roraima state, northern Brazil, where this catfish occurs; the Wapixana tribe was oppressed by other native tribes and by colonizers, which contributed to a “huge cultural loss”



Potamoglanis johnsoni. Illustration by Henry Weed Fowler. From: Fowler, H. W. 1932. Zoological results of the Matto Grosso Expedition to Brazil in 1931. I. Fresh water fishes. Proceedings of the Academy of Natural Sciences of Philadelphia 84: 343–377.

Pygidianops
Myers 1944

Pygidium Meyen 1834 (diminutive of *pyge*, Latin for rump), then a catch-all genus for many pencil catfishes (especially *Trichomycterus*) and type genus of family Pygidiidae (=Trichomycteridae), now considered a genus *inquirendum*; *ōps* (Gr. ὄψ), eye or face (i.e., appearance), allusion not explained, presumably referring to similarity to other “pygidiid” (yet distinct enough to justify a new subfamily, Glanapteryginae, which Myers proposed in the same publication)

***Pygidianops amphioxus* de Pinna & Kirovsky 2011** named for the cephalochordate amphioxus (a common name, along with lancelet, that applies to Recent cephalochordates in general, now mostly included in the *Branchiostoma*), in allusion to obvious similarities in body shape and sand-dwelling behavior; originally from *amphi-* (Gr. ἀμφί), on both sides or double, and *oxýs* (Gr. ὀξύς), sharp or pointed, referring to a lancelet’s pointed head and tail

***Pygidianops cuao* Schaefer, Provenzano, de Pinna & Baskin 2005** named for the Río Cuao, clearwater tributary of the Río Orinoco (Amazonas, Venezuela), type locality

***Pygidianops eigenmanni* Myers 1944** in memory of German-born American ichthyologist Carl H. Eigenmann (1863–1927), “to whom more than to any other we are indebted for our knowledge of both the blind fishes of the caves and the fish fauna of the fresh waters of South America”

***Pygidianops magoi* Schaefer, Provenzano, de Pinna & Baskin 2005** in honor of the late Francisco Mago-Leccia (1931–2004), Venezuelan ichthyologist, for his participation in the discovery of this species, his innumerable contributions to the ichthyology of northern South America, and his mentorship in and enthusiasm for the study of Venezuelan fishes

Typhlobelus

Myers 1944

typhlós (Gr. τυφλός), blind, referring to vestigial eyes of *T. ternetzi*, “visible as minute black dots”; *belus*, from *belés* (Gr. βελής), pointed, possibly referring to its trowel-shaped snout

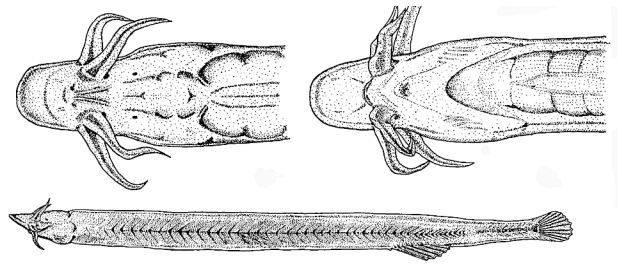
***Typhlobelus auriculatus* de Pinna & Zuanon 2013** Latin for eared, referring to conspicuously modified pseudotympanus (connected by a superficial groove to a pit entering the skull)

***Typhlobelus guacamaya* Schaefer, Provenzano, de Pinna & Baskin 2005** named for Guacamaya rapids on the middle Río Cuaó, clearwater tributary of the Río Orinoco (Amazonas, Venezuela), type locality

***Typhlobelus lundbergi* Schaefer, Provenzano, de Pinna & Baskin 2005** in honor of American ichthyologist John G. Lundberg (b. 1942), Academy of Natural Sciences of Philadelphia, for contributions to neotropical ichthyology, and his efforts during the R/V *Eastward* cruises studying the demersal fishes of large rivers

***Typhlobelus macromycterus* Costa & Bockmann 1994** *macro-*, from *makrós* (Gr. μακρός), long or large; *mycterus*, from *myktēr* (Gr. μυκτήρ), nostril, referring to longer snout compared with *T. ternetzi*

***Typhlobelus ternetzi* Myers 1944** in honor of the late Carl Ternetz (1870-1928), Swiss-born ichthyologist and naturalist, “whose valiant labors, while collecting these fishes in a little-known and fever-laden region, were the ultimate cause of his death”



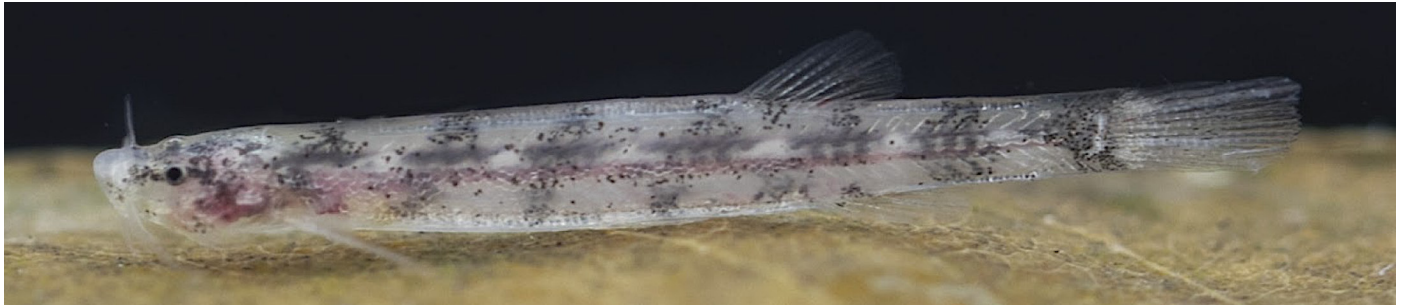
Typhlobelus macromycterus, holotype, 21.9 mm SL, with dorsal (top left) and ventral (top right) views of head. From: Costa, W. J. E. M. and F. A. Bockmann. 1994. *Typhlobelus macromycterus*, a new blind glanapterygine fish (Siluriformes Trichomycteridae) from the Rio Tocantins, Brazil. *Tropical Zoology* 7 (1): 67–72.

Order SILURIFORMES

Psammophilic Catfishes

Family TRICHOMYCTERIDAE

Subfamily SARCOGLANIDINAE Myers & Weitzman 1966



Ammoglanis obliquus. From: Henschel, E., P. H. N. Bragança, F. Rangel-Pereira and W. J. E. M. Costa. 2020. A new psammophilic species of the catfish genus *Ammoglanis* (Siluriformes, Trichomycteridae) from the Amazon River basin, northern Brazil. *Zoosystematics and Evolution* 96 (1): 67–72.

Ammoglanis

Costa 1994

ámmos or *hámmos* (Gr. ἄμμος or ἄμμος), sand, referring to sandy bottom habitat of *A. diaphanus*; *glánis* (Gr. γλάνις), ancient name for a silurid catfish (probably *Silurus aristotelis*) dating to Aristotle, often used as a general term for catfish

***Ammoglanis amapaensis* Mattos, Costa & Gama 2008** *-ensis*, Latin suffix denoting place: Estado do Amapá, Brazil, type locality

***Ammoglanis diaphanus* Costa 1994** from *diaphanés* (Gr. διαφανής), translucent (i.e., to shine through), referring to its appearance in life

***Ammoglanis multidentatus* Costa, Mattos & Santos 2019** *multi-* (L.), many; *dentatus* (L.), toothed, referring to numerous opercular odontodes (15–16), unique among sarcoglanidines

***Ammoglanis natgeorum* Henschel, Lujan & Baskin 2020** *-orum* (L.), commemorative suffix, plural: in honor of the employees of the National Geographic Society (commonly abbreviated as NatGeo), without whose support the authors' research would not have been possible; type specimens were collected during field work funded by National Geographic CRE grant 8721-09 to NKL, and the first author's research on *Ammoglanis* and other trichomycterid catfishes has been supported by a NatGeo Early Career Grant

***Ammoglanis nheengatu* Canto, Hercos & Ribeiro 2022** named for Nheengatu, the most commonly spoken language of the Amazon during the 19th century, contributing to the cultural identity of the largest Brazilian region; Nheengatu is now being "rescued" in indigenous schools of the lower rio Tapajós basin, Pará State, Brazil, where this catfish occurs

***Ammoglanis obliquus* Henschel, Bragança, Rangel-Pereira & Costa 2020** Latin for slanting or inclining in direction, referring to conspicuous diagonal banded coloration pattern of living specimens

***Ammoglanis pulex* de Pinna & Winemiller 2000** Latin for flea, referring to its minute size (up to 14.9 mm SL)

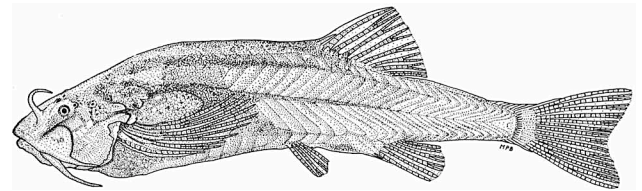
Malacoglanis

Myers & Weitzman 1966

malaco-, from *malakós* (Gr. μαλακός), soft, referring to its "soft, gelatinous consistency" in life; *glanis*, ancient name for a silurid catfish (probably *Silurus aristotelis*) dating to Aristotle, often used as a general term for catfish

***Malacoglanis gelatinosus* Myers & Weitzman 1966** from *gelatus* (L.),

frozen or congealed, referring to its soft, gelatinous consistency and pale, translucent color; "not good classical Latin," the authors write, "but the adjective has been applied by other taxonomists to translucent creatures"



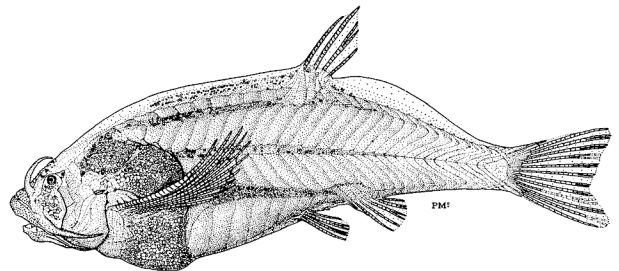
Malacoglanis gelatinosus, holotype, 19.9 mm SL. Illustration by Marcia P. Bakry. From: Myers, G. S. and S. H. Weitzman. 1966. Two remarkable new trichomycterid catfishes from the Amazon basin in Brazil and Colombia. *Journal of Zoology (London)* 149: 277–287.

Sarcoglanis

Myers & Weitzman 1966

sarco-, from *sárx* (Gr. σάρξ), flesh, referring to its soft, fleshy appearance; *glanis*, ancient name for a silurid catfish (probably *Silurus aristotelis*) dating to Aristotle, often used as a general term for catfish

***Sarcoglanis simplex* Myers & Weitzman 1966** Latin for simple or not complicated, referring to its reduced number of fin rays and apparent lack of interopercular spines



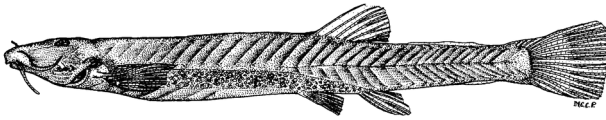
Sarcoglanis simplex, holotype, 19.6 mm SL. Illustration by Peter A. McCrery. See caption of *Malacoglanis gelatinosus* for source.

Stauroglanis

de Pinna 1989

staurós (Gr. σταυρός), cross, referring to crucifix shape of single ossified basibranchial element; *glanis*, ancient name for a silurid catfish (probably *Silurus aristotelis*) dating to Aristotle, often used as a general term for catfish

***Stauroglanis gouldingi* de Pinna 1989** in honor of conservation ecologist Michael Goulding (b. 1950), who collected holotype, for his contributions to the knowledge of Amazonian fishes



Stauraglianis gouldingi, holotype, 23.3 mm SL. Illustration by Mário C. C. de Pinna. From: de Pinna, M. C. C. 1989. A new sarcoglanidine catfish, phylogeny of its subfamily, and an appraisal of the phyletic status of the Trichomycterinae (Teleostei, Trichomycteridae). American Museum Novitates No. 2950: 1–39.

Stenolicmus

de Pinna & Starnes 1990

sténos (Gr. στένος), narrow; *likmós* (Gr. λικμός), winnowing fan or basket, referring to pectoral fins, narrower and with fewer rays than any other member of the subfamily

***Stenolicmus ix* Wosiacki, Coutinho & de Assis Montag 2011** *ix*, Mayan word for jaguar, referring to jaguar-like color pattern of grouped patches, scattered from flanks to dorsum

***Stenolicmus sarmientoi* de Pinna & Starnes 1990** in honor of Jaime Sarmiento Tavel (b. 1955), Museo Nacional de Historia Natural (Le Paz), for collecting and investigating Bolivian fishes



Stenolicmus sarmientoi, holotype, 29.5 mm SL. Illustration by Mário C. C. de Pinna. From: de Pinna, M. C. C. and W. C. Starnes. 1990. A new genus and species of Sarcoglanidinae from the Río Mamoré, Amazon Basin, with comments on subfamilial phylogeny (Teleostei, Trichomycteridae). Journal of Zoology (London) 222 (1): 75–88.