

Order CHARACIFORMES

Pencilfishes

Family **LEBIASINIDAE**

Gill 1889



Lebiasina marilynae, juvenile paratype, 32.6 mm SL. Photo by Mark Sabaj Pérez. From: Netto-Ferreira, A. L. 2012. Three new species of *Lebiasina* (Characiformes: Lebiasinidae) from the Brazilian shield border at Serra do Cachimbo, Pará, Brazil. Neotropical Ichthyology 10 (3): 487–498.

Lebiasinas
Subfamily **LEBIASININAE**
Gill 1889

Derhamia

Géry & Zarske 2002

-ia (L. suffix), belonging to: Patrick de Rham (1936–2022), Swiss ichthyologist and aquarist, who discovered type species and collected first specimens while evaluating the ecological and sociological impacts of a large hydroelectric dam at type locality in 1975

Derhamia hoffmannorum Géry & Zarske 2002 -orum (L.), commemorative suffix, plural: in honor of Peter Hoffman and Martin Hoffman (Salzgitter and Hanover, Germany, respectively), who collected holotype specimens and acclimated other specimens to captivity, giving authors “precious” information about its biology



Derhamia hoffmannorum, topotype, male. Géry, J. and A. Zarske. 2002. *Derhamia hoffmannorum* gen. et sp. n. - a new pencil fish (Teleostei, Characiformes, Lebiasinidae), endemic from the Mazaruni River in Guyana. Zoologische Abhandlungen; Staatliches Museum für Tierkunde in Dresden 52: 35–47.

Lebiasina

Valenciennes 1847

-ina (L. suffix), having the nature of: *lebias*, Greek name (λεβίας) for a kind of small fish, often used to compose names of killifishes (Cyprinodontiformes), referring to compressed, tricuspid teeth of *L. bimaculata*, “similar to those of Cyprinodons” (translation)

Lebiasina ardilai Netto-Ferreira, Lopez-Fernandez, Taphorn & Liverpool 2013 in honor of Carlos Ardila Rodríguez, Universidad Metropolitana (Barranquilla, Colombia), for numerous contributions to the systematics of pencilfishes

Lebiasina astrigata (Regan 1903) ᾶ-, Greek privative, i.e., without; *strigata* (L.), furrowed or grooved (i.e., striped), referring to uniform coloration, absent of stripes

Lebiasina aureoguttata (Fowler 1911) *aureus* (L.), golden; *guttata* (L.), spotted, referring to “gilt or golden blotch at inner basal region” of scales

Lebiasina bimaculata Valenciennes 1847 *bi-*, from *bis* (L.), two; *maculata* (L.), spotted, referring to black spots at beginning of lateral line and middle of caudal-fin insertion

Lebiasina boruca (Bussing 1967) named for the indigenous Boruca tribe who formerly inhabited southeastern Costa Rica, where this species is endemic

Lebiasina chocoensis Ardila Rodríguez 2010 -ensis, Latin suffix denoting place: Chacó, Colombia, type locality

Lebiasina chucuriensis Ardila Rodríguez 2001 -ensis, Latin suffix denoting place: San Vicente de Chucurí, Departamento de Santander, Colombia, type locality

Lebiasina colombia Ardila Rodríguez 2008 named in honor of the author’s native country, Colombia (and where fish is endemic)

Lebiasina elongata (Boulenger 1887) Latin for prolonged, referring to height of body “considerably less” than length of head, and 1/3 of SL

Lebiasina erythrinoides (Valenciennes 1850) -oides, Neo-Latin from *éidos* (Gr. εἶδος), form or shape: similar to *Erythrinus erythrinus* (Erythrinidae)

Lebiasina festae (Boulenger 1899) in honor of Italian naturalist Enrico Festa (1868–1939), who collected holotype [although named after a man, “ae” is an acceptable way to form a genitive from masculine nouns that end in “a”]

Lebiasina floridablancaensis Ardila Rodríguez 1994 -ensis, Latin suffix denoting place: Municipio de Floridablanca, Departamento de Santander, Colombia, type locality

Lebiasina intermedia Meinken 1936 Latin for intermediate, described as intermediate in body measurements and color between *L. bimaculata* and *L. multimaculata*

Lebiasina marilynae Netto-Ferreira 2012 in honor of American ichthyologist Marilyn Weitzman (1926–2022), National Museum of Natural History, Smithsonian Institution (Washington, D.C.), who devoted her career to the study of fishes of the families Lebiasinidae and Characidae

Lebiasina melanoguttata Netto-Ferreira 2012 *mélanos* (Gr. μέλας), genitive of *mélas* (μέλας), black; *guttata* (L.), dotted, referring to longitudinal series of dark blotches along flanks

Lebiasina minuta Netto-Ferreira 2012 Latin for small, referring to its size, no larger than 68.4 mm SL

Lebiasina multimaculata Boulenger 1911 *multi-* (L.), many; *maculata* (L.), spotted, referring to 9–11 roundish black spots on sides

Lebiasina narinensis Ardila Rodríguez 2002 *-ensis*, Latin suffix denoting place: Departamento d Nariño, Colombia, type locality, and for the hospitality of its people

Lebiasina ortegai Ardila Rodríguez 2008 in honor of Colombian ichthyologist Armando Ortega Lara, for his contributions to scientific knowledge of Colombian fishes

Lebiasina panamensis (Gill 1877) *-ensis*, Latin suffix denoting place: Isthmus of Panama, type locality

Lebiasina provenzanoi Ardila Rodríguez 1999 in honor of Francisco Provenzano R., Instituto de Zoología Tropical de la Universidad Central de Venezuela, for his contributions to the ichthyology of Venezuela and Colombia

Lebiasina taphorni Ardila Rodríguez 2004 in honor of American ichthyologist Donald C. Taphorn (b. 1951), then with Universidad Nacional Experimental de los Llanos Orientales “Ezequiel Zamora” (Guanare, Venezuela), for his valuable contributions to Venezuelan ichthyology

Lebiasina unitaeniata (Günther 1864) *uni-*, from *unus* (L.), one; *taeniata* (L.), banded, referring to indistinct dark band from end of operculum to lower half of caudal-fin base

Lebiasina uruyensis Fernández-Yépez 1967 *-ensis*, Latin suffix denoting place: Río Uruyén, Estado Bolívar, Venezuela, type locality

Lebiasina yepezi Netto-Ferreira, Oyakawa, Zuanon & Nolasco 2011 in honor of Venezuelan ichthyologist Agustín Fernández-Yépez (1916–1977), who first collected this species in 1951

Lebiasina yuruaniensis Ardila Rodríguez 2000 *-ensis*, Latin suffix denoting place: Río Yuruaní drainage, Gran Sabana, Estado Bolívar, Venezuela, type locality

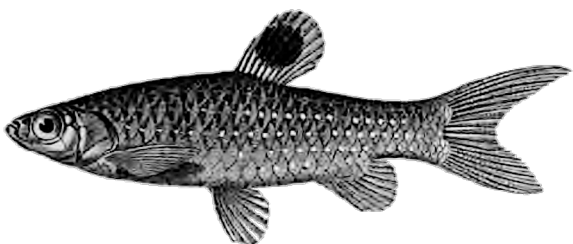
Pencilfishes
Subfamily PYRRHULINAE
Bleeker 1859

Copeina Fowler 1906

-ina (L.), belonging to: American zoologist-paleontologist Edward Drinker Cope (1840–1897), “who studied most of the fishes included” in Fowler’s paper on heterognathus fishes

Copeina guttata (Steindachner 1876) Latin for spotted or speckled, referring to reddish spots on sides

Copeina osgoodi Eigenmann 1922 in honor of American zoologist William Hudson Osgood (1875–1947), Field Museum of Natural History (Chicago, USA), who collected holotype



Copeina guttata. Illustration by Eduard Konopicky. From: Steindachner, F. 1876. Beiträge zur Kenntniss der Characinen des Amazonenstromes. Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe 72 (1. Abth.): 6–24, PIs. 1–2.

Copella Myers 1956

-ella (L.), diminutive suffix connoting endearment: in honor of American zoologist-paleontologist Edward Drinker Cope (1840–1897)

Copella arnoldi (Regan 1912) in honor of German aquarist Johann Paul Arnold (1869–1952), who collected holotype

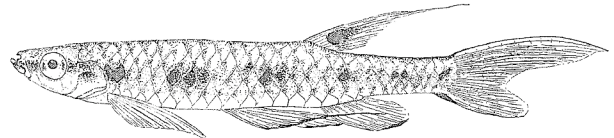
Copella callolepis (Regan 1912) *callo-*, from *kállos* (Gr. κάλλος), beauty; *lepis* (Gr. λεπίς), scale, presumably referring to pale spot on each scale (except below dusky band on lower body)

Copella compta (Myers 1927) Latin for adorned or ornamented, allusion not explained, perhaps referring to dark band around chin, through eye and across opercle, and/or wide, dark lateral band down the side; Myers said it “represents the acme of gracefulness reached by characins of the Pyrrhulininae”

Copella eigenmanni (Regan 1912) in honor of German-born American ichthyologist Carl H. Eigenmann (1863–1927), who collected holotype

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

Copella vilmae Géry 1963 matronym not identified but according to a 1965 article¹ on pet-book publisher Herbert R. Axelrod (1927–2017), name was coined by Brazilian ethnographer and fish collector Harald Schultz (1909–1966), who collected holotype and said he had found a fish beautiful enough (with bright-red belly and two metallic blue spots) to be named after his wife Vilma



Copella vilmae, holotype, 45 mm SL. From: Géry, J. 1963. *Copella vilmae* n. sp. (Pisces, Characidae). Senckenbergiana Biologica 44 (1): 25–31.

Nannostomus Günther 1872

nánnos (Gr. νάννος), dwarf; *stomus*, from *stóma* (Gr. στόμα), mouth, referring to “narrow” mouth of *N. beckfordi*

Nannostomus anduzei Fernandez & Weitzman 1987 in honor of Pablo J. Anduze (1902–1989), Venezuelan explorer, ethnologist, medical entomologist, and former governor of Amazonas State, Venezuela, who provided much help to the senior author in her work on the fishes of Venezuela’s Amazon region

Nannostomus beckfordi Günther 1872 in honor of English beekeeper and naturalist F. J. B. Beckford (1842–1920), who presented holotype to the British Museum as part of a collection he made in British Guiana

Nannostomus bifasciatus Hoedeman 1954 *bi-*, from *bis* (L.), twice; *fasciatus* (L.), banded, allusion not explained, perhaps referring to black lateral band and, presumably, to narrow golden-red streak just above it on males or narrow black band just below dorsum (description does not mention this latter character)

Nannostomus britskii Weitzman 1978 in honor of Brazilian ichthyologist Herald A. Britski, Universidade de São Paulo, who collected holotype

Nannostomus digrammus (Fowler 1913) *di-* (Gr. prefix), from *dýo* (δύο), two; *grammus*, scientific Neo-Latin derived from *grammḗ* (Gr. γραμμῆ), line or stroke of the pen, referring to two lengthwise blackish bands or streaks on sides

Nannostomus eques Steindachner 1876 Latin for horseman or rider, allusion not explained, probably referring to nocturnal oblique band (saddle-like marking on sides that is weak or absent in daylight, very dark at night, and usually present in preserved specimens) [Stein-

¹ Boyle, Robert H. The strange fish and stranger times of Dr. Herbert R. Axelrod. Sports Illustrated. 3 May 1965. <https://vault.si.com/vault/1965/05/03/the-strange-fish-and-stranger-times-of-dr-herbert-r-axelrod>

dachner used this name for two other characiforms with saddle-like markings, *Abramites eques* and *Hyphessobrycon eques*]

***Nannostomus erythrus* (Eigenmann 1909)** red-tailed, from *erythrós* (Gr. ἐρυθρός), red, and *ourá* (Gr. οὐρά), tail, referring to two red spots at base of caudal fin

***Nannostomus espei* (Meinken 1956)** in honor of ornamental fish importer-exporter Heinrich Espe, who supplied specimens (mixed in with a shipment of *N. trifasciatus*) to Meinken for identification

***Nannostomus grandis* Zarske 2011** Latin for large, at 46 mm SL, the largest known *Nannostomus*

***Nannostomus harrisoni* (Eigenmann 1909)** in honor of John Burchmore Harrison (1856–1928), Government Geologist, Georgetown, British Guiana, for his assistance during Eigenmann's 1908 expedition

***Nannostomus limatus* Weitzman 1978** Latin for elegant, refined or polished, allusion not explained, presumably referring to elongate, compressed body and/or attractive appearance or color pattern

***Nannostomus marginatus* Eigenmann 1909** Latin for bordered or edged, referring to broad dark band on sides, finely edged above and below with red

***Nannostomus marginatus picturatus* Hoedeman 1954** Latin for painted or embroidered, allusion not explained, perhaps referring to red blotch between primary and secondary stripes on caudal peduncle

***Nannostomus marilynae* Weitzman & Cobb 1975** in honor of the senior author's wife, American ichthyologist Marilyn Weitzman (1926–2022), National Museum of Natural History, Smithsonian Institution (Washington, D.C.), "who has long shared his appreciation for the delicate beauty of members of the genus *Nannostomus*"

***Nannostomus minimus* Eigenmann 1909** Latin for least, referring to its small size, described at 20–21 mm

***Nannostomus mortenthaleri* Paepke & Arendt 2001** in honor of Austrian aquarium-fish exporter Martin Mortenthaler (1961–2018), owner of Aquarium Rio Momon SRL, Iquitos, Peru, who collected holotype

***Nannostomus nigrotaeniatus* Zarske 2013** *nigro-*, from *niger* (L.), dark or black; *taeniatus* (L.), banded, referring to primary horizontal stripe, wider than band on both the closely related *N. erythrus* and *N. trifasciatus*

***Nannostomus nitidus* Weitzman 1978** Latin for neat, elegant or shining, allusion not explained, presumably referring to elongate, compressed body and/or attractive appearance or color pattern (although colors in life were not described)

***Nannostomus rubrocaudatus* Zarske 2009** *rubro-*, from *ruber* (L.), red; *caudatus* (L.), tailed, referring to "exceedingly attractive" (translation) coloration of males in life

***Nannostomus trifasciatus* Steindachner 1876** *tri-* (L.), three; *fasciatus* (L.), banded, referring to three longitudinal bands on sides (upper and lower bands much thinner than middle band)

***Nannostomus unifasciatus* Steindachner 1876** *uni-*, from *unus* (L.), one; *fasciatus* (L.), banded, referring to prominent black band running from snout into lower lobe of caudal fin



Nannostomus nigrotaeniatus. Photo by Dieter Bork. From: Zarske, A. 2013. *Nannostomus nigrotaeniatus* spec. nov. – ein neuer Ziersalmier aus Venezuela (Teleostei: Characiformes: Lebiasinidae). Vertebrate Zoology 63 (2): 125–137.

Pyrrhulina

Valenciennes 1846

-ina (L. suffix), having the nature of: *pyrrhós* (Gr. πύρρος), flame-colored, presumably referring to "uniformly red coloration" (translation) of *P. filamentosa*

***Pyrrhulina australis* Eigenmann & Kennedy 1903** Latin for southern, presumably referring to its occurrence (described from Paraguay) south of the "evidently closely related" *P. semifasciata* (Amazon River basin)

***Pyrrhulina beni* Pearson 1924** named for the lower Río Beni basin, Bolivia, type locality

***Pyrrhulina brevis* Steindachner 1876** Latin for short, allusion not explained, probably referring to shorter longitudinal stripe (lower jaw to posterior edge of head) compared with *P. semifasciata* (lower jaw to middle of abdomen)

***Pyrrhulina capim* Vieira & Netto-Ferreira 2019** named for Rio Capim, a tributary of Rio Guamá, Pará, Brazil, where the junior author first collected this species, from the Tupí-Guaraní *Caá* (leaf) and *Pii* (thin or slender)

***Pyrrhulina eleanorae* Fowler 1940** in honor of Eleanor Morrow, wife of William C. Morrow, who led Peruvian expedition that collected holotype [Fowler also gave Morrow's middle initial as "P." in the same publication, presumably in error]

***Pyrrhulina elongata* Zarske & Géry 2001** Latin for prolonged, referring to elongated body shape (depth at beginning of dorsal fin 4.8–5.1 times in SL)

***Pyrrhulina filamentosa* Valenciennes 1847** Latin for filamentous, referring to filamentous dorsal- and caudal-fin rays

***Pyrrhulina laeta* (Cope 1872)** Latin for joyful, cheerful or gay, allusion not explained, probably referring to its attractive coloration (e.g., orange-red fins, scales orange at base with broad blackish margins forming rows of spots)

***Pyrrhulina lugubris* Eigenmann 1922** Latin for mourning or funereal, probably referring to purple body color, a traditional mourning color in some cultures

***Pyrrhulina marilynae* Netto-Ferreira & Marinho 2013** in honor of American ichthyologist Marilyn Weitzman (1926–2022), National Museum of Natural History, Smithsonian Institution (Washington, D.C.), for her assistance to both authors since they began studying the family Lebiasinidae

***Pyrrhulina maxima* Eigenmann & Eigenmann 1889** Latin for large or great, presumably referring to larger size compared with the "closely related" *P. brevis* and *P. (=Copella) nattereri*

***Pyrrhulina melanostoma* (Cope 1870)** black-mouthed, from *mélanos* (Gr. μέλανος), genitive of *mélas* (μέλας), black, and *stóma* (Gr. στόμα), mouth referring to black band through operculum and orbit around edge of premaxillary, and second black band around edge of mandible

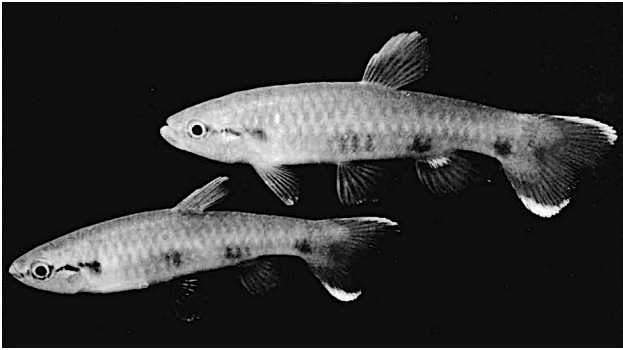
***Pyrrhulina obermulleri* Myers 1926** in honor of the late August Obermüller, who first introduced Myers to South American characins at his "aquarium establishment" in Jersey City, New Jersey, USA

***Pyrrhulina rachoviana* Myers 1926** in honor of German aquarist Arthur Rachow (1884–1960), who supplied holotype from aquarium specimens (in the German hobby since 1906) and translated Myers' description into German

***Pyrrhulina semifasciata* Steindachner 1876** *semi-*, from *semis* (L.), a half or moiety; *fasciata* (L.), banded, referring to blackish longitudinal stripe from front edge of lower jaw to middle of abdomen

***Pyrrhulina spilota* Weitzman 1960** from *spilōtós* (Gr. σπιλωτός), marked or stained, referring to three spots on sides and one at base of caudal fin

***Pyrrhulina stoli* Boeseman 1953** in honor of Dutch naturalist and aquarium-store owner E. C. Stol (d. 1975), who collected holotype



Pyrrhulina spilota, holotype, male, 53 mm SL (upper), and paratype, female, 45 mm SL (lower). From: Weitzman, S. H. 1960. *Pyrrhulina spilota*, a new species of characid fish from South America. Stanford Ichthyological Bulletin 7 (4): 109–113.

***Pyrrhulina vittata* Regan 1912** Latin for banded, probably referring to three blackish bars on body

***Pyrrhulina zigzag* Zarske & Géry 1997** referring to zigzag shape of longitudinal band on sides