

# The ETYFish Project

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COMMENTS: 

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## Order CICHLIFORMES (part 7 of 10)

### Family CICHLIDAE Cichlids (part 7 of 7)

#### Subfamily Cichlinae American Cichlids (*Darienheros* through *Wallaciia*)

##### ***Darienheros* Říčan & Novák 2016**

named for the Darién area between Panamá (where it occurs) and Colombia; *Heros*, old neotropical cichlid name meaning “hero,” used here to mean “hero of the Darién”

##### ***Darienheros calobrensis* (Meek & Hildebrand 1913)**

-*ensis*, suffix denoting place: Río Calobre, Panama, type locality

##### ***Dicrossus Steindachner* 1875**

*di-*, two; *crossus*, fringe or tassel; name coined by Agassiz, allusion not explained, perhaps referring to long, filiform ventral fins of *D. maculatus* males

##### ***Dicrossus filamentosus* (Ladiges 1958)**

filamentous or thread-like, referring to long, caudal-fin streamers on males

##### ***Dicrossus foirni* Römer, Hahn & Vergara 2010**

in honor of FOIRN, Federação das Organizações Indígenas do Rio Negro, a non-governmental organization that has repeatedly given permission to travel on the tribal land of the village communities of different indigenous groups in the middle and upper Rio Negro and its affluent rivers, permitting the observation and collection of this species and *D. warzeli*; the name is also intended to highlight the fact that the basic human rights of indigenous peoples, who depend on large functional ecosystems for all necessary resources, are still in question in most parts of Amazonia when business projects (such as logging, mining, or the building of hydroelectric dams) are planned in the wilderness of the neotropical rainforests

##### ***Dicrossus gladiocauda* Schindler & Staeck 2008**

*gladius*, sword; *cauda*, tail, referring to sword-like streamer of dorsal lobe of caudal fin in adult males

##### ***Dicrossus maculatus* Steindachner 1875**

spotted, referring to checkerboard pattern on sides

##### ***Dicrossus warzeli* Römer, Hahn & Vergara 2010**

in honor of “skilled” German aquarist Frank Martin Warzel (1960-2004), who “dedicated most of his life” to research on neotropical cichlids; he collected type in 1992, was the first to import this species to Germany and observe its reproductive behavior both in the field and in the aquarium

##### ***Geophagus* Heckel 1840**

*geo*, earth; *phagein*, eat, i.e., eartheater, latinization of *Pappaterra*, local name for these cichlids in Mato Grosso, Brazil, “probably derived from the diet of the fish, which seeks out water plants growing in the mud” (translation, italics in original) [actually, “eartheaters” uproot plants while feeding from the substrate]

##### ***Geophagus abalios* López-Fernández & Taphorn 2004**

*a-*, not or without; *balios*, spotted, referring to lack of preopercular markings

##### ***Geophagus altifrons* Heckel 1840**

*altus*, high; *frons*, forehead, referring to its high, straight forehead

##### ***Geophagus argyrostictus* Kullander 1991**

*argyros*, silvery; *stiktos*, spotted, referring to silvery dots on anterior sides

##### ***Geophagus brachybranchus* Kullander & Nijssen 1989**

*brachys*, short; *branchia*, gills, referring to gill filaments on first gill arch largely covered by skin, creating the appearance that they (i.e., their exposed portions) are short

##### ***Geophagus brasiliensis* (Quoy & Gaimard 1824)**

-*ensis*, suffix denoting place: Rio de Janeiro Bay, Brazil, type locality (also occurs in Argentina and Uruguay)

##### ***Geophagus brokopondo* Kullander & Nijssen 1989**

named for Brokopondomeer (an artificial lake or reservoir) in the Suriname River system, and for Brokopondo District, Suriname, type locality (also occurs in Guyana)

##### ***Geophagus camopiensis* Pellegrin 1903**

-*ensis*, suffix denoting place: Camopi River, Oyapock basin, French Guiana, type locality (also occurs in Brazil)

***Geophagus crassilabris* Steindachner 1876**

*crassus*, wide; *labrum*, lip, referring to noticeably more swollen lips of adults

***Geophagus crocatus* Hauser & López-Fernández 2013**

saffron yellow, referring to yellow operculum of living specimens

***Geophagus diamantinensis* Mattos, Costa & Santos 2015**

*-ensis*, suffix denoting place: Chapada Diamantina (Bahia, northeastern Brazil), a high plateau with a predominance of Caatinga vegetation, where this cichlid is endemic

***Geophagus dicrozoster* López-Fernández & Taphorn 2004**

*dikros*, forked; *zoster*, belt, referring to “Y” formed by lateral bars 4 and 5

***Geophagus gottwaldi* Schindler & Staeck 2006**

in honor of aquarium-fish importer Jens Gottwald (b. 1967), Garbsen, Germany, who collected type and recognized it as a new species, for his “commitment to increase the knowledge about cichlid fishes”

***Geophagus grammepareius* Kullander & Taphorn 1992**

*gramme*, line; *pareia*, cheek, referring to dark stripe across cheek

***Geophagus harreri* Gosse 1976**

in honor of Heinrich Harrer (1912-2006), Austrian writer, sportsman, explorer and mountaineer (best known for being on four-man climbing team that made the first ascent of the North Face of the Eiger in Switzerland and author of the 1952 book *Seven Years in Tibet*), for his help during fish-collecting surveys in Suriname and French Guiana

***Geophagus iporangensis* Haseman 1911**

*-ensis*, suffix denoting place: Iporanga (a village), Brazil, type locality

***Geophagus itapicuruensis* Haseman 1911**

*-ensis*, suffix denoting place: Rio Itapicurú at Queimadas, Bahia, Brazil, type locality

***Geophagus megasema* Heckel 1840**

*mega*, large; *sema*, mark, allusion not explained, probably referring to large lateral spot cited as a character of the species

***Geophagus mirabilis* Deprá, Kullander, Pavanelli & da Graça 2014**

extraordinary, marvelous or admirable, referring to unique color pattern that includes row of black spots on flanks and iridescent spots and vermiculations on side of head in living individuals

***Geophagus multiocellus* Mattos & Costa 2018**

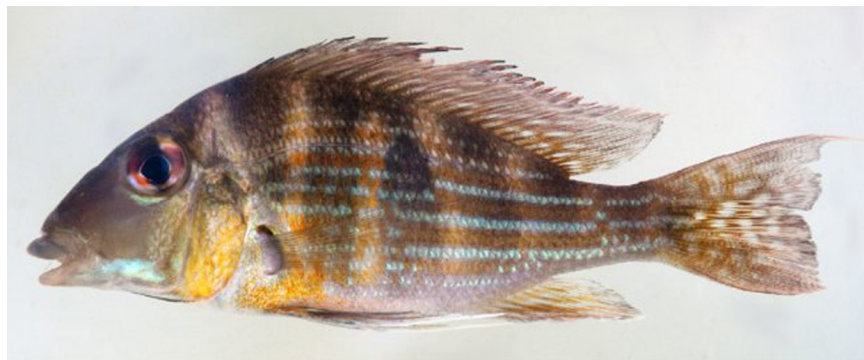
*multi-*, several; *ocellatus*, having little eyes, referring to small, pale-blue spots with minute bright-blue dots in their centers on caudal fin

***Geophagus neambi* Lucinda, Lucena & Assis 2010**

in honor of Núcleo de Estudos Ambientais (Neamb), Universidade Federal do Tocantins (Brazil), for its effort in studying the rio Tocantins ichthyofauna

***Geophagus obscurus* (Castelnau 1855)**

dark, referring to what Castelnau presumed was its chocolate-brown color in life



*Geophagus crocatus*. From: Hauser, F. E. and H. López-Fernández. 2013. *Geophagus crocatus*, a new species of geophagine cichlid from the Berbice River, Guyana, South America (Teleostei: Cichlidae). *Zootaxa* 3731 (no. 2): 279-286.

***Geophagus parnaibae* Staeck & Schindler 2006**

of the rio Parnaíba basin, northeastern Brazil, where it appears to be endemic

***Geophagus pellegrini* Regan 1912**

in honor of French ichthyologist Jacques Pellegrin (1873-1944), who “kindly” sent one of the types of *G. camopiensis* for comparison

***Geophagus proximus* (Castelnuau 1855)**

near, allusion not explained, perhaps reflecting Castelnuau’s comment that this species looks very much like (“Ressemble beaucoup”) *Chromys unimaculata* (= *G. brasiliensis*)

***Geophagus pyrineusi* Deprá, Ohara & Silva 2022**

in honor of Lieut. Antônio Pyrineus de Sousa (d. 1936), who collected holotype in 1915 while serving as a naturalist with the Rondon Commission to install telegraph poles from Mato Grosso to Amazonas (Brazil); the current authors fulfilled the wish of Alípio de Miranda-Ribeiro, who intended to name this cichlid after Pyrineus de Sousa (as he had named the loriciid catfish *Hypostomus pyrineusi* in 1920)

***Geophagus pyrocephalus* Chuctaya, Nitschke, Andrade, Wingert & Malabarba 2022**

*pyra*-, fire; *cephalus*, head, referring to its red head and its common name in the aquarium trade, “Tapajos red head”

***Geophagus rufomarginatus* Mattos & Costa 2018**

*rufa*-, red; *marginatus*, edged or bordered, referring to red dorsal-fin lappets in living specimens

***Geophagus santosi* Mattos & Costa 2018**

in honor of Alexandre Clístenes Alcântara Santos, ichthyologist and friend, who is dedicated to the study of aquatic ecosystems of northeast Brazil

***Geophagus steindachneri* Eigenmann & Hildebrand 1922**

in honor of Austrian ichthyologist Franz Steindachner (1834-1919), who reported this cichlid as *G. brasiliensis* in 1880

***Geophagus surinamensis* (Bloch 1791)**

*-ensis*, suffix denoting place: Suriname, type locality (also occurs in French Guiana, Brazil and Colombia, and established in Florida [USA] and Singapore)

***Geophagus sveni* Lucinda, Lucena & Assis 2010**

in honor of ichthyologist Sven O. Kullander (b. 1952), Swedish Museum of Natural History, for many contributions to cichlid systematics

***Geophagus taeniopareius* Kullander & Royero 1992**

*taenia*, stripe; *pareia*, cheek, referring to dark stripe across the cheek and its popular name among German aquarists, Wangenstrich-Erdfresser

***Geophagus winemilleri* López-Fernández & Taphorn 2004**

in honor of aquatic ecologist Kirk O. Winemiller, Texas A&M University (College Station, Texas, USA), who led field expedition to Río Casiquiare region of Venezuela (during which most of type series was collected), for nearly two decades of contributions to ecology and tropical fish biology, many of which have been based on Venezuelan fishes

***Guianacara* Kullander & Nijssen 1989**

*Guiana*, referring to the Guianas, principal area of distribution; *acará*, Tupí-Guaraní word for cichlids

Subgenus ***Guianacara******Guianacara cuyunii* López-Fernández, Taphorn Baechle & Kullander 2006**

of the Cuyuní River, Bolívar, Venezuela, type locality

***Guianacara dacrya* Arbour & López-Fernández 2011**

*dakryo*, to shed tears or weep, referring to tear-streaked appearance of infraorbital stripe

***Guianacara geayi* (Pellegrin 1902)**

in honor of pharmacist and natural history collector Martin François Geay (1859-1910), who collected type

***Guianacara owroewefi* Kullander & Nijssen 1989**

*owroewefi*, meaning “old wife,” one of the local names applied to this species (and other cichlids) in Suriname, allusion not explained (but see *Vieja*, below)

***Guianacara sphenozona* Kullander & Nijssen 1989**

*sphen*, wedge; *zona*, band or girdle, referring to wedge-shaped vertical stripe on sides

***Guianacara stergiosi* López-Fernández, Taphorn Baechle & Kullander 2006**

in honor of botanist Basil Stergios, whose numerous expeditions into remote regions of southern Venezuela have encountered a variety of undescribed fishes, including most of the upper Caura drainage specimens of this cichlid

Subgenus **Oelemaria** Kullander & Nijssen 1989

-*ia*, belonging to: Oelemari River, Marowijne District, Suriname, where the one included species appears to be endemic

**Guianacara oelemariensis** Kullander & Nijssen 1989

-*ensis*, suffix denoting place: Oelemari River, Marowijne District, Suriname, where it appears to be endemic

**Gymnogeophagus** Miranda Ribeiro 1918

*gymnos*, bare or naked, i.e., *Geophagus*-like cichlids with a scaleless cheek and predorsal midline

**Gymnogeophagus australis** (Eigenmann 1907)

southern, referring to southern distribution (Argentina, Uruguay) compared to presumed congeners in *Geophagus*

**Gymnogeophagus balzanii** (Perugia 1891)

in honor of Italian naturalist Luigi Balzan (1865-1893), who collected type during a grand solo tour of South America in 1890

**Gymnogeophagus caaguazuensis** Staeck 2006

-*ensis*, suffix denoting place: Caaguazú Province, Paraguay, type locality

**Gymnogeophagus che** Casciotta, Gómez & Toresanni 2000

Mbya-Guaraní word meaning “mine” or “my,” a colloquial term in Argentina that distinguishes Argentines from other Spanish-speaking countries, referring to the country where this cichlid is endemic

**Gymnogeophagus constellatus** Malabarba, Malabarba & Reis 2015

studded with stars, referring to arrangement of white bright spots in dorsolateral region of body

**Gymnogeophagus gymnogenys** (Hensel 1870)

*gymnos*, bare or naked; *genys*, cheek, referring to scaleless cheek and preopercle

**Gymnogeophagus jaryi** Alonso, Terán, Aguilera, Říčan, Casciotta, Serra, Almirón, Benítez, García & Mirande 2019

*jarýj*, Guaraní word for grandmother, dedicated to Abuelas [Grandmothers] de Plaza de Mayo, a non-governmental organization created in 1977 “whose objective is to locate and restore to their legitimate families all the children disappeared by the last Argentine dictatorship”

**Gymnogeophagus labiatus** (Hensel 1870)

lippered, referring to its characteristically large (thickened and swollen) lips

**Gymnogeophagus lacustris** Reis & Malabarba 1988

lacustrine (belonging to a lake), referring to occurrence in coastal lagoons of southern Brazil

**Gymnogeophagus lipokarenos** Malabarba, Malabarba & Reis 2015

*lipos*, fat; *kara*, head, referring to extremely large adipose hump of adult males

**Gymnogeophagus mekinos** Malabarba, Malabarba & Reis 2015

Greek for prolonged, referring to its comparatively elongated body

**Gymnogeophagus meridionalis** Reis & Malabarba 1988

southern, only member of genus found south of Buenos Aires, Argentina

**Gymnogeophagus missioneiro** Malabarba, Malabarba & Reis 2015

Portuguese noun meaning “from the Missões region,” named for the Jesuit Missions of the 18th century in southern Brazil and Argentina, referring to this cichlid’s distribution in western Rio Grande do Sul, Brazil

**Gymnogeophagus peliochelynion** Turcati & Serra-Alanis 2018

*pelios*, black and blue; *chelyne*, lip, referring to color of its hypertrophied lips

**Gymnogeophagus pseudolabiatus** Malabarba, Malabarba & Reis 2015

*pseudo-*, false, although this cichlid may resemble *G. labiatus* (which also has thick, swollen lips), such an appearance is false

**Gymnogeophagus rhabdotus** (Hensel 1870)

striped, presumably referring to bright silvery longitudinal stripes on body alternating with narrow, darker stripes

**Gymnogeophagus setequeadas** Reis, Malabarba & Pavanelli 1992

named for Sete Quedas, a major waterfall of the rio Paraná (Paraguay, in whose drainage this cichlid occurs), which disappeared with the construction of the Itaipu hydroelectric dam in 1983 (also occurs in Argentina and Brazil)

**Gymnogeophagus taroba** Casciotta, Almirón, Piálek & Říčan 2017

named for Tarobá, a warrior, referring to a legend of the Kaingang people, who were the first inhabitants of the present-day province of Misiones in Argentina, particularly the rio Iguazú basin, above the falls, where this cichlid is endemic; according to the legend, Tarobá and Naipí, a beautiful young maiden, 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

***Gymnogeophagus terrapurpura* Loureiro, Zarucki, Malabarba & González-Bergonzoni 2016**

named for the 1885 novel *The Purple Land* (*La Tierra Purpúrea* in Spanish) by William Henry Hudson (1841-1922), in which the main character travels through the same region of Uruguay where this cichlid occurs

***Gymnogeophagus tiraparae* González-Bergonzoni, Loureiro & Oviedo 2009**

in honor of María Luisa Tirapare, an 18th-century Guaraní woman who founded the former town of San Borja del Yí, the last native town in Uruguayan land, where natives, fugitive African slaves, *gauchos* (cowboys), and other outsiders lived together

***Hemeraia Varella, Kullander, Menezes, Oliveira & López-Fernández 2023***

named for its type species, *H. hemera*

***Hemeraia chicha* (Varella, Kullander & Lima 2012)**

referring to the *chichi* festivities of the Paresi (or Halíti), one of the indigenous groups originally living in the Mato Grosso plateau in the region of the upper rio Juruena basin (where this cichlid occurs); during *chichi*, they meet to drink *olóniti*, a beverage made with roasted tapioca (cassava starch) of mandioca brava (bitter cassava), dance, and sing their myths, mainly celebrated nowadays when they conclude rites of individual passage (e.g., nomination of children and pubertal girls), or within a timetable ritual (e.g., first harvest time of a culture of cassava)

***Hemeraia hemera* (Kullander 1990)**

tame, referring to docile behavior when type series was collected (most individuals observed could be approached very closely, very reluctantly fleeing and not far)

***Herichthys* Baird & Girard 1854**

*Heros*, referring to its “strong affinities” with that genus; *ichthys*, fish

***Herichthys bartoni* (Bean 1892)**

patronym not identified; according to Jordan & Evermann (1898), in honor of Barton A. Bean (1860-1947), assistant curator of ichthyology at the U.S. National Museum and the author’s brother

***Herichthys carpintis* (Jordan & Snyder 1899)**

-*is*, genitive singular of: Laguna del Carpinte, near Tampico, Tamaulipas, México, type locality

***Herichthys cyanoguttatus* Baird & Girard 1854**

*ciano-*, blue; *guttatus*, spotted, referring to small bluish spots scattered all over body and fins

***Herichthys deppii* (Heckel 1840)**

in honor Ferdinand Deppe (1794-1861), German naturalist, explorer and painter, who collected type

***Herichthys labridens* (Pellegrin 1903)**

*labrum*, lip; *dens*, teeth, probably referring to two enlarged teeth in external row on upper lip, particularly noticeable in adults

***Herichthys minckleyi* (Kornfield & Taylor 1983)**

in honor of ichthyologist Wendell L. Minckley (1935-2001), Arizona State University, who studied the biota of Cuatro Ciénegas (Coahuila, México, where this cichlid is endemic) for many years

***Herichthys pame* De la Maza-Benignos & Lozano-Vilano 2013**

named for the Pame people of México, whose territory includes five municipalities in the state of San Luis Potosí, including Tamasopo, where this cichlid is endemic

***Herichthys pantostictus* (Taylor & Miller 1983)**

*pantos*, all; *stiktos*, spotted, referring to small, dark brown spots over most of its body

***Herichthys steindachneri* (Jordan & Snyder 1899)**

patronym not identified but clearly in honor of Austrian ichthyologist Franz Steindachner (1834-1919)

***Herichthys tamasopoensis* Artigas Azas 1993**

-*ensis*, suffix denoting place: Tamasopo, municipality in San Luis Potosí, México, type locality, derived from the Huasteca word *Tam-Azote*, meaning “place of waterfalls”

***Herichthys tepehua* De la Maza-Benignos, Ornelas-García, Lozano-Vilano, García-Ramírez & Doadrio 2015**

Nahuatl word meaning “the ones who possess the mountains,” referring to the remaining (as of 1990 México census) 10,573 members of the indigenous Tepehua ethnic group and their language, spoken in eastern México, including states of Veracruz and Puebla, where this cichlid occurs

***Heroína* Kullander 1996**

-*ina*, having the nature of: referring to a “certain outward likeness” to the genus *Heros*

***Heroína isonycterina* Kullander 1996**

-*ina*, having the nature of: *isos*, equal; *nycterus*, nightly, i.e., of equal nights, referring to its equatorial distribution

***Heros* Heckel 1840**

allusion not explained, possibly meaning “hero,” which, in the classical use of the term, means “protector,” “defender” or

“guardian,” perhaps referring to parental care of young (which Heckel probably did not know about); another possible explanation comes from the works of Homer, in which “hero” is reserved for the chief warriors and captains, perhaps referring to their large number of spiny anal-fin rays, a feature Heckel used to distinguish *Heros* from its closest relatives, thereby making *Heros* more “warrior-like”

***Heros efasciatus* Heckel 1840**

*e-*, without; *fasciatus*, banded, referring to absence of vertical bands, compared to the similar *H. spurius*, described in the same paper

***Heros liberifer* Staeck & Schindler 2015**

*liberi*, children; *fero*, to carry, referring to biparental oral incubation of fry (mouthbrooding), a reproductive behavior apparently unique in the genus

***Heros notatus* (Jardine 1843)**

marked, presumably referring to a “dark rich umber-brown spot” at the base of each scale, and lower part of the head and opercula “marked with rather large irregularly rounded spots of the same colour”

***Heros severus* Heckel 1840**

harsh, stern, sharp, rough or rigorous, allusion not explained, possibly referring to its more prominently curved head compared to congeners (Sven O. Kullander, pers. comm.)

***Heros spurius* Heckel 1840**

false, allusion not explained, perhaps referring to similarity to *H. severus*, *H. coryphaeus* and *H. modestus* (latter two taxa now regarded as junior synonyms of *H. spurius*)

***Herotilapia* Pellegrin 1904**

combination of *Heros* and *Tilapia* (then a catch-all African genus), referring to “curious” (translation) dentition reminiscent of the latter while all other characters align with the former

***Herotilapia multispinosa* (Günther 1867)**

*multi-*, many; *spinosus*, spiny, allusion not explained, perhaps referring to more anal-fin spines (11) compared to *Amatitlania nigrofasciata* (10), its presumed congener at the time (proposed in the same paper)

***Hoplarchus* Kaup 1860**

*hoplo-*, armed; *archus*, anus, presumably referring to “unusually strong” (translation) anal-fin spines

***Hoplarchus psittacus* (Heckel 1840)**

parrot, named for its “*beautiful bright colors*” (translation, italics in original)

***Hypselecara* Kullander 1986**

*hypselos*, high, referring to prominent rising forehead in adults; *acará*, Tupí-Guaraní name for cichlids; “last part of the name might also be taken to derive from the Greek *cara*, head”

***Hypselecara coryphaenoides* (Heckel 1840)**

*-oides*, having the form of: dolphinfishes (*Coryphaena*), referring to its “tall, blunt, *Coryphaena*-like head” (translation)

***Hypselecara temporalis* (Günther 1862)**

temporal, presumably referring to large brownish-black blotch between eye and upper part of gill opening, with a crescent-shaped yellowish spot above it

***Hypsophrys* Agassiz 1859**

etymology not explained, perhaps *hypo-*, high, allusion not evident; *ophrys*, eyebrow, but in this case possibly referring to how Agassiz said it resembled *Chrysophrys* (Sparidae)

***Hypsophrys nicaraguensis* (Günther 1864)**

*-ensis*, suffix denoting place: Lake Nicaragua and/or Nicaragua, type locality (also occurs in Costa Rica and established in Hawai‘i)

***Isthmoheros* Říčan & Novák 2016**

*isthmos*, narrow passage or neck of land (i.e., Isthmus of Panama); *Heros*, old neotropical cichlid name meaning “hero,” used here to mean “Isthmian hero,” as it is the only eastern Isthmian genus that has its sister-genus on the opposite side of the Isthmus in western Panama and Costa Rica

***Isthmoheros tuyrensis* (Meek & Hildebrand 1913)**

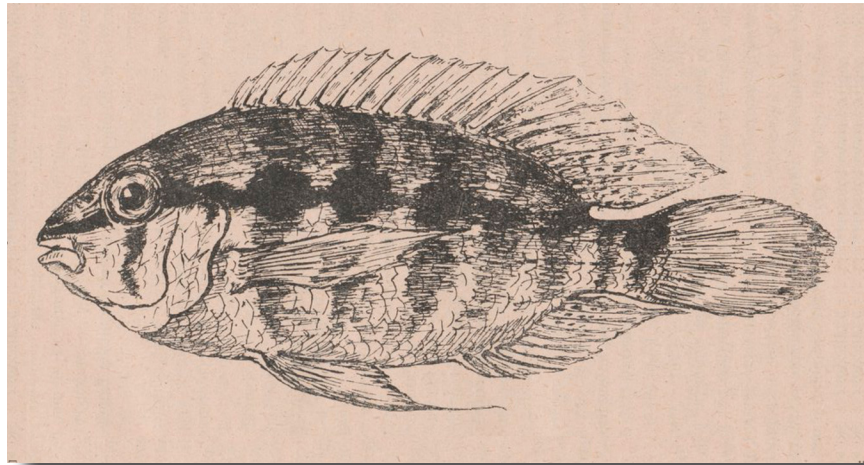
*-ensis*, suffix denoting place: Río Tuyra, Boca de Cupe, Panama, type locality

***Ivanacara* Römer & Hahn 2006**

*Ivan*, referring to Ivan the Terrible (1530-1584), first crown Russian tsar, known for being “exceptionally ill-tempered and irascible,” alluding to the “aggressive and unpredictable” behavior of members of this genus as observed in the aquarium and in the field; *acará*, Tupí-Guaraní word for cichlids

***Ivanacara adoketa* (Kullander & Prada-Pedreras 1993)**

Greek for unexpected, referring to unexpected discovery of a *Nannacara* (original genus) species in the Rio Negro drainage



*Krobia itanyi*. From: Puyo, J. 1943, Nouveaux poissons d'eau douce de la Guyane française. *Bulletin de la Société d'Histoire Naturelle de Toulouse* v. 78 (no. 3): 141-149 [1-9].

***Ivanacara bimaculata* (Eigenmann 1912)**

*bi-*, two; *maculata*, spotted, referring to lateral and caudal spots

***Kihnichthys* McMahan & Matamoros 2015**

named for Herman A. Kihn (also known as P. Herman Kihn-Pineda, Universidad de San Carlos de Guatemala), “who has spent a lifetime” studying the fishes of Guatemala (where this genus is endemic), making “invaluable” contributions to our understanding of their diversity and distribution; *ichthys*, fish [treated as a synonym of *Cinzelichthys* by some workers]

***Kihnichthys ufermanni* (Allgayer 2002)**

in honor of Allgayer’s friend, German aquarist Alfred Ufermann (d. 2002), who studied the nomenclature and systematics of cichlids

***Krobia* Kullander & Nijssen 1989**

Surinamese vernacular name applied to several cichlid species, including *K. guianensis*

***Krobia guianensis* (Regan 1905)**

*-ensis*, suffix denoting place: Guyana, type locality (also occurs in Suriname and possibly Brazil)

***Krobia itanyi* (Puyo 1943)**

of Itany, French name of Litani River, Marowijne (or Maroni) River drainage, part of boundary between Suriname and French Guiana, type locality

***Krobia petitella* Steele, Liverpool & López-Fernández 2013**

diminutive of *petitus*, reaching out for or inclining towards, referring to lateral band spots lying adjacent to upper lateral line anteriorly and intercepting posteriorly

***Krobia xinguensis* Kullander 2012**

*-ensis*, suffix denoting place: Xingú River drainage, Brazil, where it is endemic

***Kronoheros* Řičan & Piálek 2016**

*Kronos*, leader of the first generation of Titans of Greek mythology, referring to *K. umbrifer*, the largest neotropical cichlid (47.5 cm SL); *Heros*, an old name for neotropical cichlids, meaning “hero” (see *Heros*, above)

***Kronoheros umbrifer* (Meek & Hildebrand 1913)**

shady, presumably referring to “dark olivaceous” coloration

***Laetacara* Kullander 1986**

*laetus*, happy; *acara*, Tupí-Guaraní word for cichlids, inspired by the name “smiling acara” suggested by aquarist James K. Langhammer (1971) for *L. flavilabris* (then identified as *Aequidens thayeri*), referring to facial expression produced by its snout markings, shared by other members of the genus

***Laetacara araguaiae* Ottoni & Costa 2009**

*-ensis*, suffix denoting place: rio Araguaia basin, Goiás, Brazil, type locality

***Laetacara curviceps* (Ahl 1923)**

*curvus*, curve; *ceps*, head, referring to convex profile of upper head, “strongly bent over the forehead” (translation) of mature males

***Laetacara dorsigera* (Heckel 1840)**

*dorsi-*, back; *-iger*, to bear, allusion not explained, perhaps referring to dark spot on dorsal fin

***Laetacara flamannellus* Ottoni, Bragança, Amorim & Gama 2012**

*flammeus*, flame-colored; *annellus*, ring, referring to “orange flame” ring around spot on dorsal fin

***Laetacara flavilabris* (Cope 1870)**

*flavus*, yellow; *labrum*, lip, referring to yellow lower lip

***Laetacara fulvipinnis* Staeck & Schindler 2007**

*fulvus*, dark yellow; *pinna*, fin, referring to coloration of caudal and anal fins, a distinguishing feature of the species

***Laetacara thayeri* (Steindachner 1875)**

in honor of financier and philanthropist Nathaniel Thayer, Jr. (1808-1883), who sponsored a 15-month expedition to Brazil (1865-1866) that secured a rich collection of new species (studied, in large part, by Steindachner and Eigenmann), including type of this one

***Lugubria Varella*, Kullander, Menezes, Oliveira & López-Fernández 2023**

named for its type species, *L. lugubris*

***Lugubria acutirostris* (Günther 1862)**

*acutus*, pointed; *rostris*, snout, referring to “comparatively much more produced” snout than the similar *L. johanna*

***Lugubria adspersa* (Heckel 1840)**

besprinkled, referring to “black spots all over the head and chest” (translation)

***Lugubria cincta* (Regan 1905)**

*cinctum*, belt or girdle, presumably referring to 9 or 10 dark vertical crossbars on upper half of body

***Lugubria dandara* (Varella & Ito 2018)**

named after Dandara (d. 1694), an Afro-Brazilian warrior of Brazil’s colonial period, who, according to legend, fiercely defended, with her husband Zumbi, the community of Palmares, a safe haven for escaped slaves in the coastal state of Alagoas; today she is a symbol of the struggle against racism and the exploitation of black women, and the death day of Zumbi (20 Nov. 1695) is celebrated as the Dia da Consciência Negra (Black Awareness Day) throughout Brazil [a noun in apposition without the matronymic “*ae*”]

***Lugubria johanna* (Heckel 1840)**

latinization of *Joanna*, from *Joanna Guensa*, local name for this cichlid in Mato Grosso, Brazil

***Lugubria lenticulata* (Heckel 1840)**

freckled, referring to “beautiful lenticular black spots” (translation) on breast

***Lugubria lugubris* (Heckel 1840)**

mournful or dark, presumably referring to uniform olive-brown color in spirits

***Lugubria marmorata* (Pellegrin 1904)**

marbled, a manuscript name coined by Cuvier & Valenciennes, presumably referring to its coloration, described as: “Light yellow with a very irregular brown band at the upper part of the body and a second band formed by a succession of irregular brown spots and dots at the level of the lower lateral line” (translation)

***Lugubria monicae* (Kullander & Varella 2015)**

in honor of ichthyologist Mônica Toledo-Piza Ragazzo, whose “initiative and effort” in publishing (2002) Alfred Russel Wallace’s drawings from his 1850-1852 expedition to the Rio Negro and Rio Uaupés region “were a great service to science, and also decisive for identifying [this] new species”

***Lugubria multispinosa* (Pellegrin 1903)**

*multi-*, many; *spinosa*, spiny, referring to more numerous dorsal-fin spines compared to the similar *Saxatilia brasiliensis*, its presumed congener at the time

***Lugubria percna* (Kullander 1991)**

dark-spotted, referring to four dark blotches along the sides

***Lugubria phaiospilus* (Kullander 1991)**

*phaios*, dark; *spilos*, spot, referring to 4-5 dark blotches along the sides

***Lugubria rosemariae* (Kullander 1997)**

in honor of Rosemary Lowe-McConnell (1921-2014), who collected type and was a “persistent inspiratrix to students of tropical fish ecology”

***Lugubria strigata* (Günther 1862)**

striped, referring to pair of brown streaks along middle of body to caudal-fin spot (upper streak continued on through the eye to snout), and a third streak along upper portion of lateral line

***Lugubria ternetzi* (Norman 1926)**

in honor of ichthyologist and naturalist Carl Ternetz (1870-1928), who made extensive collections in French



Guiana for the British Museum (including, presumably, holotype of this species)

***Lugubria tigrina* (Ploeg, Jégu & Ferreira 1991)**

tiger-like, referring to tiger-like markings on sides and unpaired fins of adult males

***Maskaheros* McMahan & Piller 2015**

*máska*, shortened form of *mascara*, Spanish for mask, referring to mask-like appearance of broad, dark interorbital bars that diagnose the genus; *Heros*, generic name formerly used for many neotropical cichlids

***Maskaheros argenteus* (Allgayer 1991)**

silvery, referring to its silvery white body color in life

***Maskaheros regani* (Miller 1974)**

in honor of ichthyologist Charles Tate Regan (1878-1943), Natural History Museum (London), for his “classic studies on American cichlids”

***Mayaheros* Řičan & Piálek 2016**

named after the native Mesoamerican Maya people whose ancestral distribution includes most of the native area of the *M. urophthalmus* species group and which was very likely the ancestral area of the whole genus; *Heros*, old neotropical cichlid name meaning “hero,” used here to mean “hero of the Maya people”

***Mayaheros aguadae* (Hubbs 1936)**

of an aguada (shallow well or watering hole) at Tuxpeña, interior Campeche, Yucatán, Mexico, only known area of occurrence (known only from holotype)

***Mayaheros amarus* (Hubbs 1936)**

bitter, referring to its salt- or brackish-water habitat

***Mayaheros beani* (Jordan 1889)**

in honor of in honor of Tarleton H. Bean (1846-1916), U.S. National Museum, for his “researches in American ichthyology”

***Mayaheros ericymba* (Hubbs 1938)**

*eri-*, very; *cymba*, cavity, referring to deep and well-developed sensory cavities of lateral-line system on head, presumably an adaptation to life in San Bulha Cenote (also known as Šambulá cave) in Yucatán, México

***Mayaheros trispilus* (Hubbs 1935)**

*tri-*, three; *spilus*, spot, referring to two round black spots (or blotches) about as large as eye on caudal peduncle, slightly separated or barely connected with one another, and to a jet-black spot (“not conspicuously ocellated”) on caudal fin

***Mayaheros troschेलii* (Steindachner 1867)**

patronym not identified but almost certainly in honor of German zoologist Franz Hermann Troschel (1810-1882), author of *Horae ichthyologicae* (three volumes, 1845-49) with Johannes Peter Müller

***Mayaheros urophthalmus* (Günther 1862)**

*oura*, tail; *ophthalmos*, eye, referring to large black ocellus at base of caudal fin

***Mazarunia* Kullander 1990**

*-ia*, belonging to: Mazaruni River, Guyana, type locality of *M. mazarunii*

***Mazarunia charadrica* López-Fernández, Taphorn & Liverpool 2012**

Greek for a mountain stream or a torrent, referring to its apparent preference for reophilous habitats (often found in the steep tributaries of the Mazaruni River of Guyana that flow from the slopes of the Roraima massif and other mountainous sources in the area)

***Mazarunia mazarunii* Kullander 1990**

of the Mazaruni River, Guyana, type locality

***Mazarunia pala* López-Fernández, Taphorn & Liverpool 2012**

Greek for gold nugget, referring to golden spots behind and under orbit, and to the fact that it has only been collected in the main channel of the upper Mazaruni River (Guyana), where a growing gold-mining industry may be contributing to degradation of its habitat

***Mesoheros* McMahan & Chakrabarty 2015**

*mesos*, middle (i.e., Middle America), referring to how this South American genus is phylogenetically nested in a derived Middle American cichlid clade; *Heros*, a generic name formerly used for many neotropical cichlids

***Mesoheros atromaculatus* (Regan 1912)**

*atro-*, black; *maculatus*, spotted, referring to one series of blackish spots above lateral line and two below it

***Mesoheros festae* (Boulenger 1899)**

in honor of Italian naturalist Enrico Festa (1868-1939), who collected type

**Mesoheros gephyrus (Eigenmann 1922)**

*gephyra*, a bridge, intermediate between *M. atromaculatus* and *M. ornatus* (in fact, Eigenmann wondered if it might be a hybrid between the two)

**Mesoheros ornatus (Regan 1905)**

ornate or decorated, referring to blackish cross-bars on sides of body, light blue spots on sides of head, and each scale with a light blue spot, the spots of the lower part of the body larger and almost white

**Mesonauta Günther 1862**

*mesos*, middle; *nautes*, sailor, allusion not explained, possibly referring to origin of dorsal fin (the “sail” in “sailor”) posterior to origin of pelvic fin (i.e., closer to middle of body), which was Günther’s principal diagnostic character for the genus

**Mesonauta acora (Castelnau 1855)**

*Acora*, local name for this cichlid along the rio Araguaia, Brazil (possibly an orthographic variant of *acará*, Tupí-Guaraní word for cichlids)

**Mesonauta egregius Kullander & Silfvergrip 1991**

eminent or distinguished, named “in line” with *M. festivus* and *M. insignis*

**Mesonauta festivus (Heckel 1840)**

handsome, described as a “*beautifully colored very excellent species*” (translation, italics in original)

**Mesonauta guyanae Schindler 1998**

of Guyana, where type locality (Essequibo River) is situated (also occurs in Brazil)

**Mesonauta insignis (Heckel 1840)**

distinguished, described as “*excellent as it is rare*” (translation, italics in original)

**Mesonauta mirificus Kullander & Silfvergrip 1991**

wonderful, named “in line” with *M. festivus* and *M. insignis*

**Mikrogeophagus Meulengracht-Madsen 1968**

*micro-*, small, i.e., referring to *M. ramirezi* as a dwarf species of *Geophagus* or at least closely related to that genus (a name coined by aquarists and informally used since at least 1957, unintentionally made available in a Danish aquarium book)

**Mikrogeophagus altispinosus (Haseman 1911)**

*altus*, high; *spinosus*, thorny, referring to long fourth spine of dorsal fin

**Mikrogeophagus maculicauda Staeck, Ottoni & Schindler 2022**

*macula*, blotch or spot; *cauda*, tail, referring to prominent dark blotch on caudal peduncle

**Mikrogeophagus ramirezi (Myers & Harry 1948)**

in honor of Manuel Vicente Ramirez, who collected type with Herman Blass (Franjo Fisheries, Miami, Florida, USA) in Venezuela; since Blass bred and popularized the fish in the aquarium trade using the names “Ramirezi” and “Ramirezi Cichlid” (since shortened to “Ram Cichlid”), the authors maintained the name “merely in order to avoid confusion” [junior author later known as Rofen]

**Nandopsis Gill 1862**

*-opsis*, appearance, allusion not explained, perhaps referring to superficial resemblance of *N. tetracanthus* with the Asian leafy family Nandoidae (mentioned by Gill in his paper; now known as Nandidae, Anabantiformes), presumed to be related to cichlids at the time (a resemblance we fail to see)

**Nandopsis haitiensis (Tee-Van 1935)**

*-ensis*, suffix denoting place: Haiti, type locality (also occurs in Dominican Republic)

**Nandopsis ramsdeni (Fowler 1938)**

in honor of Cuban zoologist Charles T. Ramsden (1876-1951), who collected type

**Nandopsis tetracanthus (Valenciennes 1831)**

*tetra-*, four; *acanthus*, spine, proposed in the North American sunfish genus *Centrarchus*, which has 7-8 anal-fin spines, whereas this species has but four

**Nannacara Regan 1905**

*nanus*, dwarf; *Acara*, a “Closely allied” genus, referring to small size of *N. anomala*, described at 55 and 57 mm, i.e., a dwarf *Acara*

**Nannacara anomala Regan 1905**

anomalous, described as a “curious species,” presumably referring to upper lateral line, which runs obliquely upwards to spinous portion of dorsal fin, and from which it is separated by only a half-series of scales for most of its length

**Nannacara aureocephalus Allgayer 1983**

*aureus*, golden; *cephalus*, head, referring to bright-yellow color on cheek, postocular area, preoperculum and

operculum of living specimens

***Nannacara quadrispinae* Staeck & Schindler 2004**

*quadri-*, four; *spina*, spine, referring to four (sometimes five) anal-fin spines compared to three in congeners

***Nannacara taenia* Regan 1912**

band, referring to any or all of the following: dark oblique stripe from eye to interoperculum; broad dark longitudinal stripe from eye to base of caudal fin; narrower stripes at edges of series of scales on body; an oblique stripe from eye to interoperculum

***Neetroplus* Günther 1867**

*ne-*, not, presumed to be closely allied to the Indian and Sri Lankan genus cichlid *Etroplus*, but with a developed (instead of rudimentary) lateral line

***Neetroplus nematopus* (Günther 1867)**

*nematos*, thread; *pous*, foot, referring to filamentous outer ray of ventral fin, as long as the fin itself

***Oscura* McMahan & Chakrabarty 2015**

Spanish word for dark, referring to its overall dark coloration

***Oscura heterospila* (Hubbs 1936)**

*hetero-*, different; *spilos*, mark or spot, referring to “very irregular blackish purple markings” on body

***Panamius* Schmitter-Soto 2007**

Panamanian, referring to country where it is endemic

***Panamius panamensis* (Meek & Hildebrand 1913)**

*-ensis*, suffix denoting place: Atlantic slope of Panama, where it appears to be endemic

***Parachromis* Agassiz 1859**

etymology not explained, probably *para-*, near, referring to how this genus resembles and/or is related to *Chromis*, which Agassiz apparently believed constituted a genus of South and Central American cichlids

***Parachromis dovii* (Günther 1864)**

in honor of John Melmoth Dow (1827-1892), Panama Railroad Company, ship captain and amateur naturalist, who collected type [“*w*” latinized as a “*v*”]

***Parachromis friedrichsthalii* (Heckel 1840)**

in honor of Emanuel von Friedrichsthal (1809-1842), Austrian explorer, botanist and amateur archaeologist, who sent many natural history specimens from Central America to the Vienna Museum, including type of this cichlid

***Parachromis managuensis* (Günther 1867)**

*-ensis*, suffix denoting place: Lake Managua, Nicaragua, type locality (also occurs in Costa Rica and Honduras, widely introduced elsewhere)

***Parachromis motaguensis* (Günther 1867)**

*-ensis*, suffix denoting place: Río Motagua, Guatemala, type locality (also occurs in El Salvador and Honduras)

***Parachromis multifasciatus* (Regan 1905)**

*multi-*, many; *fasciatus*, banded, referring to ~10 blackish crossbars on olivaceous body

***Paraneetroplus* Regan 1905**

*para-*, near, referring to *P. bulleri*, described as intermediate between *Neetroplus nematopus* and *P. nebulifer*

***Paraneetroplus bulleri* Regan 1905**

in honor of Audley Cecil Buller (1853-1894), who collected many specimens of Mexican vertebrates, including type of this one

***Paraneetroplus gibbiceps* (Steindachner 1864)**

*gibbus*, hump; *ceps*, head, referring to hunchbacked appearance (small hump on head) of some adult specimens

***Paraneetroplus nebulifer* (Günther 1860)**

*nebula*, cloud; *fero*, to bear, referring to middle of body “clouded with blackish, in the form of indistinct vertical bands”

***Paraneetroplus omonti* Allgayer 1988**

in honor of French aquarist Jean-Marie Omont, a “traveler devoted to the cause of the cichlid family” (translation)

***Petenia* Günther 1862**

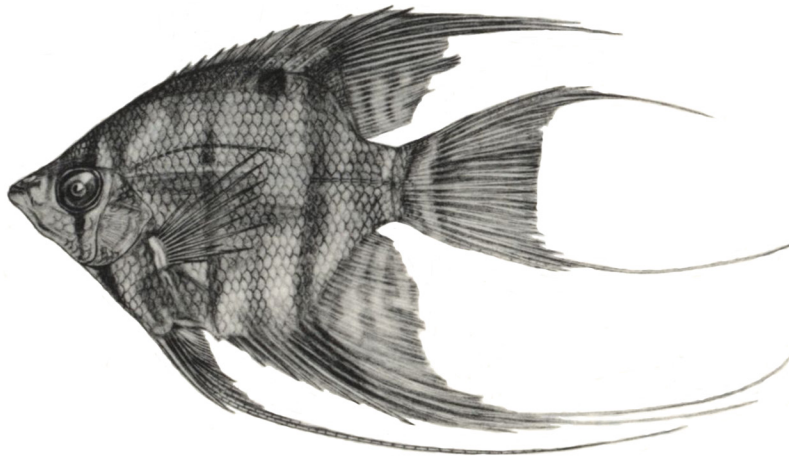
*-ia*, belonging to: Lake Petén, Guatemala, type locality of *P. splendida* (also occurs in México and Belize)

***Petenia splendida* Günther 1862**

bright or shining, presumably referring to “Greenish, shining, golden” coloration

***Pterophyllum* Heckel 1840**

*ptero-*, winged, *phyllon*, leaf, presumably referring to tall, wide, triangular dorsal fin, i.e., a winged leaf



*Pterophyllum leopoldi*. From: Gosse, J.-P. 1963. Description de deux cichlidés nouveaux de la région amazonienne. *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique* v. 39 (no. 35): 1-7, Pl. 1.

***Pterophyllum altum* Pellegrin 1903**

high, referring to higher body compared to *P. scalare*

***Pterophyllum leopoldi* (Gosse 1963)**

in honor of King Leopold III (1901-1983) of Belgium, who sponsored 1962 Amazon expedition and helped collect holotype

***Pterophyllum scalare* (Schultze 1823)**

ladder, i.e., like a flight of stairs, referring to how dorsal-fin spines gradually climb higher (step by step) along the fin

***Retroculus* Eigenmann & Bray 1894**

*retro-*, back or backwards; *oculus*, eye, referring to relatively posterior position of eye in head of *R. boulengeri* (= *lapidifer*) compared to other cichlids

***Retroculus acherontos* Landim, Moreira & Figueiredo 2015**

of Acheron, river in Greek mythology that flows to Hades, land of the souls, referring to type locality, Rio das Almas (Goiás, Brazil), which means “river of the souls” in Portuguese

***Retroculus lapidifer* (Castelnau 1855)**

*lapidis*, stone; *fero*, to bear, referring to how this cichlid covers its eggs with small pebbles, which it carries in its mouth one at a time

***Retroculus septentrionalis* Gosse 1971**

northern, the northernmost member of the genus

***Retroculus xinguensis* Gosse 1971**

*-ensis*, suffix denoting place: Rio Xingú, Mato Grosso, Brazil, type locality

***Rheoheros* McMahan & Matamoros 2015**

*rheos*, stream or current, referring to preferred habitat; *Heros*, generic name formerly used for many neotropical cichlids

***Rheoheros coeruleus* (Stawikowski & Werner 1987)**

blue, referring to sky-blue color on body and fins of breeding males and females

***Rheoheros lentiginosus* (Steindachner 1864)**

freckled, referring to dense brown speckles all over body

***Rocio* Schmitter-Soto 2007**

*rocío*, Spanish word for morning dew, an “image evoked by the resplendent spots on cheek and sides of some species”; Rocio is also the forename of Schmitter-Soto's wife

***Rocio gemmata* Contreras-Balderas & Schmitter-Soto 2007**

bejeweled, referring to large, bright green and blue cheek and opercle spots in life [treated as a junior synonym of *R. octofasciata* by some workers]

***Rocio ocotal* Schmitter-Soto 2007**

from the Spanish *ocotal*, meaning an ocote (species of pine) forest, referring to Laguna Ocotal, Chiapas, México, where it appears to be endemic

**Rocio octofasciata (Regan 1903)**

*octo*, eight; *fasciata*, banded, referring to seven dark bands on side and one at base of caudal fin

**Rocio spinosissima (Vaillant & Pellegrin 1902)**

very thorny, presumably referring to short dorsal- and anal-fin spines (i.e., more like thorns than spines) and/or to “sometimes more numerous” (translation) dorsal-fin spines than *Herotilapia multispinosa*, its presumed congener at the time

**Rondonacara Ottoni & Mattos 2015**

Rondon, in honor of Cândido Rondon (1865-1958), Brazilian army engineer and explorer, leader of the Rondon-Roosevelt Scientific Expedition (1913-1914), during which *R. boehnei* was collected; *acará*, Tupí-Guaraní word for cichlids

**Rondonacara hoehnei (Miranda Ribeiro 1918)**

in honor of Brazilian botanist Frederico Carlos Hoehne (1882-1959), who collected type

**Satanoperca Günther 1862**

satan, devil or demon, referring to *S. daemon* (see below); *perca*, perch, i.e., a perch-like fish

**Satanoperca acuticeps (Heckel 1840)**

*acutus*, sharp or pointed; *ceps*, head, referring to more pointed head compared to *S. daemon* and *S. jurupari*

**Satanoperca curupira Ota, Kullander, Depra, da Graça & Pavanelli 2018**

Curupira, a mythological creature of Brazilian folklore that protects the forest and its inhabitants, punishing those who hunt for pleasure or who kill breeding females or defenseless juveniles; the legend reveals the relationship between indigenous people and the forest: it is not about exploration and indiscriminate use, but respect for life

**Satanoperca daemon (Heckel 1840)**

demon, translation of *jurupari*, local Tupí name in Brazil for this and related cichlids, derived from a local legend in which a spirit named Jurupari swallowed three little boys who, seeking shelter from thunder in the forest, fled into its mouth thinking it was a cave, and were then vomited into four baskets upon Jurupari's return to the village, probably alluding to the mouthbrooding care of female *Satanoperca* (wherein fry retreat to their mother's mouth for protection and are expelled when the danger is past); apparently, the natives were frightened by the fact that the young of these fishes were born from their mouths and thus regarded it as the work of the devil

**Satanoperca jurupari (Heckel 1840)**

local Tupí name in Brazil for this and related cichlids, meaning demon (see *S. daemon* for explanation)

**Satanoperca leucosticta (Müller & Troschel 1849)**

*leukos*, white; *stiktos*, spotted or blotched, referring to numerous small whitish or iridescent bluish spots on head and dorsal and caudal fins

**Satanoperca lilith Kullander & Ferreira 1988**

Lilith, a nocturnal female demon in Babylonian and Jewish folklore, continuing the Tupí tradition of naming these cichlids after demons (see *S. daemon*) [a noun in apposition, without the matronymic “ae”]

**Satanoperca mapiritensis (Fernández-Yépez 1950)**

*-ensis*, suffix denoting place: Río Mapirito al Sur de Maturín, Monagas, Venezuela, type locality (also occurs in Colombia)

**Satanoperca pappaterra (Heckel 1840)**

local name for this and related cichlids (*Geophagus*) in Mato Grosso, Brazil, “probably derived from the diet of the fish, which seeks out water plants growing in the mud” (translation, italics in original) [actually, “earth eaters” uproot plants while feeding from the substrate]

**Satanoperca rhynchitis Kullander 2012**

*rhynchos*, snout; *-itus*, adjectival suffix expressing possession, referring to long, pointed snout

**Satanoperca setepele Ota, Deprá, Kullander, Graça & Pavanelli 2022**

*sete-pele*, Portuguese for “seven skins,” a Brazilian name for a shape-shifting demon, alluding to the folklore surrounding the name *Satanoperca* (see *S. daemon*)

**Saxatilia Varela, Kullander, Menezes, Oliveira & López-Fernández 2023**

named for its type species, *S. saxatilis*

**Saxatilia albopunctata (Pellegrin 1904)**

*albus*, white; *punctatus*, spotted, referring to numerous white spots on body and unpaired fins

**Saxatilia alta (Eigenmann 1912)**

high, allusion not explained, perhaps referring to higher placement of humeral spot (centered on lateral line except in very young) compared with *S. saxatilis* (entirely below lateral line) [*Crenicichla vaillanti* Pellegrin 1903 is a senior synonym but has not been used as valid for over 50 years]

***Saxatilia anthurus* (Cope 1872)**

*anthos*, flower; *urus*, tail, referring to caudal fin, “deep crimson, fading to purple at base, with a longitudinal dark shade in the centre, and series of small oval pink spots, one between each pair of rays”

***Saxatilia brasiliensis* (Bloch 1792)**

-*ensis*, suffix denoting place: Brazil, type locality (and where it is endemic)

***Saxatilia britskii* (Kullander 1982)**

in honor of Heraldo A. Britski (Universidade de São Paulo), for his “valuable” help during Kullander’s stay in São Paulo (e.g., arranging excursion during which holotype was collected)

***Saxatilia copenamensis* (Ploeg 1987)**

-*ensis*, suffix denoting place: Coppename River system, Suriname, type locality (also occurs in Saramacca River system)

***Saxatilia frenata* (Gill 1858)**

bridled, presumably referring to black band extending from jaw to opercular spine (but interrupted at the eye)

***Saxatilia hummelincki* (Ploeg 1991)**

in honor of zoologist Pieter Wagenaar Hummelinck (1907-2003), founder of the Foundation for Scientific Research in Suriname and the Netherlands Antilles, on the occasion of his 83rd birthday

***Saxatilia inpa* (Ploeg 1991)**

named after INPA, acronym for Instituto Nacional de Pesquisas da Amazônia (Manaus, Brazil), whose staff supplied Ploeg with “enormous amounts of material” which served partially as the basis for his revision of the genus

***Saxatilia isbrueckeri* (Ploeg 1991)**

in honor of ichthyologist Isaïc J.H. Isbrücker (b. 1944), Zoölogisch Museum (Amsterdam), Ploeg’s “colleague, friend and teacher”

***Saxatilia labrina* (Spix & Agassiz 1831)**

derived from *labrum*, lip, referring to its thick lips (“labris crassissimis”)

***Saxatilia lepidota* (Heckel 1840)**

scaled, allusion not explained, perhaps referring to larger and/or “more uniform” (translation) scales compared to *Crenicichla macrophthalmia*, its presumed congener at the time

***Saxatilia lucius* (Cope 1870)**

*lucius*, pike (Esocidae), referring to its pike-like shape

***Saxatilia nickeriensis* (Ploeg 1987)**

-*ensis*, suffix denoting place: Nickerie River system, Suriname, type locality

***Saxatilia pellegrini* (Ploeg 1991)**

in honor of French ichthyologist Jacques Pellegrin (1873-1944), for his contribution to the knowledge of the genus *Crenicichla* (original genus) and cichlids in general

***Saxatilia ploegi* (Varella, Loeb, Lima & Kullander 2018)**

in honor of Dutch ichthyologist Alex Ploeg, whose Ph.D. thesis dealt with the taxonomic revision, biogeography and phylogeny of *Crenicichla* (original genus) and who published papers on systematics of the genus from 1986 to 1991, describing a total of 23 species, 18 of which still considered valid; since then, he worked as interlocutor between the ornamental fish industry and other institutions worldwide, before losing his life (along with his wife and son and son’s friend) when Malaysia Airlines flight MH17 was shot down by a missile over the Ukraine on 17 July 2014

***Saxatilia proteus* (Cope 1872)**

Proteus, a sea god capable of changing his form, referring to how this species is “represented by numerous specimens, which vary in many respects [e.g., color and shape] from an average standard, constituting several varieties”

***Saxatilia pydanielae* (Ploeg 1991)**

in honor of Lúcia H. Rapp Py-Daniel, Curator of Fishes, Instituto Nacional de Pesquisas da Amazônia, for her hospitality when Ploeg visited Manaus in November 1987 and July 1989

***Saxatilia santosi* (Ploeg 1991)**

in honor of Ploeg’s friend Geraldo Mendes dos Santos, Instituto Nacional de Pesquisas da Amazônia, who collected this cichlid during a survey of Rondônia rivers (1984-1988)

***Saxatilia saxatilis* (Linnaeus 1758)**

among rocks, allusion not explained and perhaps a misnomer as this cichlid generally occurs in swampy, black-water habitats and in forest streams above the first rapids; since Linnaeus placed it in the bream genus *Sparus* and before that (1754) in the drum genus *Sciaena*, perhaps he believed it was a marine fish that occurred among rocks or reefs (the only locality information he provided was “Surinam”)

***Saxatilia semicincta* (Steindachner 1892)**

*semi-*, half; *cinctus*, belt or girdle, referring to 8-9 dark crossbands on upper half of body

***Saxatilia sipaliwini* (Ploeg 1987)**

named for the Sipaliwini River, Corantijn River system, Suriname, where it appears to be endemic

***Saxatilia sveni* (Ploeg 1991)**

in honor of “Swedish cichlidologist” Sven O. Kullander (b. 1952), Swedish Museum of Natural History, for his contributions to the knowledge of *Crenicichla* (original genus)

***Symphysodon* Heckel 1840**

*symphysis*, grown together (*sym*, together; *physis*, growth, body form or appearance); *odous*, tooth, referring to presence of teeth located over area where the two jaw halves meet (the symphysis)

***Symphysodon aequifasciatus* Pellegrin 1904**

*aequus*, same or equal; *fasciatus*, banded, referring to equally wide dark stripes across sides, different from the pattern with a dominant middle bar in *S. discus*

***Symphysodon discus* Heckel 1840**

flat or circular plate, referring to its body shape

***Symphysodon tarzoo* Lyons 1959**

contraction of “Tarpon Zoo,” an ornamental fish export firm in Tarpon Springs, Florida, USA, with a fish collecting station in Leticia, Colombia, from which Lyons’ specimens originated

***Taeniacara* Myers 1935**

*taenia*, band or stripe, referring to broad black lateral band down middle of sides; *acará*, Tupí-Guaraní word for cichlids but in this case possibly referring to *Nannacara*, from which it differs in its elongate form and absence of a lateral line

***Taeniacara candidi* Myers 1935**

in honor of Ed. A. Candidus (Morsemere, New Jersey, USA), whose “aquarium collection is famed for the ichthyological rarities it contains,” including type of this cichlid

***Tahuantinsuyoa* Kullander 1986**

Quechua name (pronounced *tab-wanteen-soo-you-ab*) for the Inca Empire

***Tahuantinsuyoa chipi* Kullander 1991**

Shipibo word for sister, referring to “close, next-river, geographic relationship” with *T. macantzatza*, its only known congener

***Tahuantinsuyoa macantzatza* Kullander 1986**

Shipibo words for stone (*macan*) and fish (*tzatza*), referring to predominantly stony bed of the Río Huacamayo, Peru, type locality [combined with the generic name, our choice for the most unpronounceable binomen in fishes]

***Talamancaheros* Řičan & Novák 2016**

named for the Talamanca mountains of lower Central America (Costa Rica and western Panama), where it occurs; *Heros*, old neotropical cichlid name meaning “hero,” used here to mean “hero of the Talamanca mountains”

***Talamancaheros sieboldii* (Kner 1863)**

in honor of friend and colleague Karl (or Carl) Theodor Ernst von Siebold (1804-1885), physiologist and zoologist, Bavarian State Collection of Zoology (München, Germany), who invited Kner to study a collection of Central American fishes made by German explorer and geographer Moritz Wagner (1813-1887), including holotype of this one

***Talamancaheros underwoodi* (Regan 1906)**

in honor of British naturalist-taxidermist Cecil F. Underwood (1867-1943), who collected natural history specimens in Costa Rica, including type of this cichlid

***Teleocichla* Kullander 1988**

*Teleo-*, referring to the African cichlid genus *Teleogramma*, reflecting parallel morphology (elongate shape and continuous lateral line); *cichla*, referring to the closely related South American cichlid genus *Crenicichla*

***Teleocichla centisquama* Zuanon & Sazima 2002**

*centum*, a hundred; *squama*, scale, referring to 113-129 scales along continuous (unbroken) lateral line, the most in the genus

***Teleocichla centrarchus* Kullander 1988**

*kentron*, spine; *archus*, anus, only species in genus (except for *T. wajapi*) with four anal-fin spines

***Teleocichla cinderella* Kullander 1988**

diminutive of *cinis*, ashes, referring to gray and black coloration, producing an ashy appearance

***Teleocichla gephyrogramma* Kullander 1988**

*gephyra*, bridge; *gramme*, line, referring to its “nearly united, or bridged” lateral lines

***Teleocichla monogramma* Kullander 1988**

*monos*, only; *gramme*, line, referring to its single lateral line

***Teleocichla preta* Varella, Zuanon, Kullander & López-Fernández 2016**

Portuguese word for black, referring to diagnostic dark overall coloration of body (and its common name among aquarists and Rio Xingu fishermen)

***Teleocichla prionogenys* Kullander 1988**

*prion*, saw; *genys*, cheek, referring to serrated preoperculum

***Teleocichla proselytus* Kullander 1988**

Greek for stranger or newcomer, referring to lack of distinctive diagnostic characters compared to congeners

***Teleocichla wajapi* Varella & Moreira 2013**

named for the Wajãpi (also known as Waiapi or Oyampi) people, numbering less than 2000 people distributed in several tribes in Amapá, Brazil (where this cichlid occurs), and in French Guiana

***Theraps* Günther 1862**

slave or attendant, allusion not explained, perhaps referring to fry-guarding behavior (although Günther did not mention this); a more likely explanation is a superficial resemblance to *Terapon theraps* (Perciformes: Terapontidae)

***Theraps irregularis* Günther 1862**

irregular, referring to seven “rather irregular” transverse blackish bands on sides, some of which extend to dorsal fin

***Thorichthys* Meek 1904**

*throsko*, to leap and *ichthys*, fish; according to Meek, *T. helleri* are “attracted by anything which enters the water and will jump out of it in an apparently playful mood. When abundant they are easily caught in the hand, for as soon as your finger touches the water, they will come leaping towards you.”

***Thorichthys affinis* (Günther 1862)**

related, described as “very closely allied” to *T. aureus*

***Thorichthys aureus* (Günther 1862)**

gold, presumably referring to its “Yellowish-olive” coloration

***Thorichthys callolepis* (Regan 1904)**

*callo-*, beautiful; *lepis*, scale, presumably referring to small, light-blue spot at base of each scale on body

***Thorichthys helleri* (Steindachner 1864)**

in honor of Austrian botanist Karl Bartholomaeus Heller (1824-1880), who collected type while exploring México (1845-1848)

***Thorichthys maculipinnis* (Steindachner 1864)**

*maculi-*, spotted; *pinnis*, fin, referring to yellow-blue spots on anal, dorsal and caudal fins

***Thorichthys meeki* Brind 1918**

in honor of ichthyologist Seth Eugene Meek (1859-1914), who proposed the genus *Thorichthys* in 1904

***Thorichthys panchovillai* Del Moral-Flores, López-Segovia & Hernández-Arellano 2017**

in honor of José Doroteo Arango Arámbula (1878-1923), better known as Francisco Villa and “Pancho Villa,” the “historical, chief and fundamental pillar of the Mexican Revolution” (translation)

***Thorichthys pasionis* (Rivas 1962)**

*-is*, genitive singular of: Río de la Pasión at Sayaxche, El Petén, Guatemala, type locality (also occurs in México)

***Thorichthys socolofi* (Miller & Taylor 1984)**

in honor of Ross Socolof (1925-2009), aquarium fish exporter, breeder and wholesaler, “who was instrumental in making the first collections of the new species and who, over the years, has enthusiastically collected cichlids and other fishes from Middle America and generously made them available for study”

***Tomocichla* Regan 1908**

*tomo*, etymology not explained nor evident, perhaps from *tomos*, Greek for part, book or volume, allusion not evident; *cichla*, from the Greek *kichle*, historically applied to both thrushes (Aves) and wrasses (Labridae, once thought to be related to cichlids), now applied only to cichlids, perhaps referring here to *Cichla*, type genus of family

***Tomocichla asfraci* Allgayer 2002**

coined from the initial letters of l'Association France Cichlid, for its promotion of the family Cichlidae

***Tomocichla tuba* (Meek 1912)**

local name for this cichlid in Victoria, Costa Rica, type locality (per Meek 1914; also occurs in Nicaragua and Panama); according to Caldwell et al. (1959), *tuba* is a Mosquito indian name word meaning “friend,” referring to the “almost universal availability of the fish in the area, and the indian along the river feels that as long as he



has his ever-carried handline and some sort of bait (usually some of the shrimps which abound in the roots of the water hyacinths) he will not starve.”

**Trichromis McMahan & Chakrabarty 2015**

*tri-*, three, referring to the three vibrant colors defining this genus (red, yellow, blue); *chromis*, a name dating to Aristotle, possibly derived from *chroemo* (to neigh), referring to a drum (Sciaenidae) and its ability to make noise, later expanded to embrace cichlids, damselfishes, dottybacks and wrasses (all perch-like fishes once thought to be related), often used in the names of African cichlid genera following *Chromis* (now *Oreochromis*) *mossambicus* Peters 1852, but used here, per the authors, as a Greek word for “fish”

**Trichromis salvini (Günther 1862)**

in honor of English herpetologist-ornithologist Osbert Salvin (1835-1898), who collected type with Frederick DuCane Godman (see *Chuco godmanni*, Cichliformes part 6)

**Uaru Heckel 1840**

from *Uarù urà* (*Uarù*=toad), local name of *A. amphiacanthoides* along the río Negro of Brazil

**Uaru amphiacanthoides Heckel 1840**

*-oides*, having the form of: *Amphiacanthus*, allusion not explained, perhaps a misspelling of *Amphacanthus* (= *Siganus*), referring to their similarity to rabbitfishes

**Uaru fernandezyepezi Stawikowski 1989**

in honor of the late Venezuelan ichthyologist Agustín Fernández-Yépez (1916-1977), named at the request of Hans J. Köpke, a fish exporter and tour organizer in Venezuela, who collected type and considered Fernández-Yépez a helpful and “fatherly” friend and an “excellent connoisseur” of Venezuelan fishes (translations)

**Vieja Fernández-Yépez 1969**

Spanish for “old woman,” vernacular for cichlids in parts of South America and labrids in the West Indies, originally applied (according to Jordan & Evermann 1896) to larger and plainly colored fishes (compare with *Loricariichthys anus*, Siluriformes part 3, and *Guianacara owroewefi*, above)

**Vieja bifasciata (Steindachner 1864)**

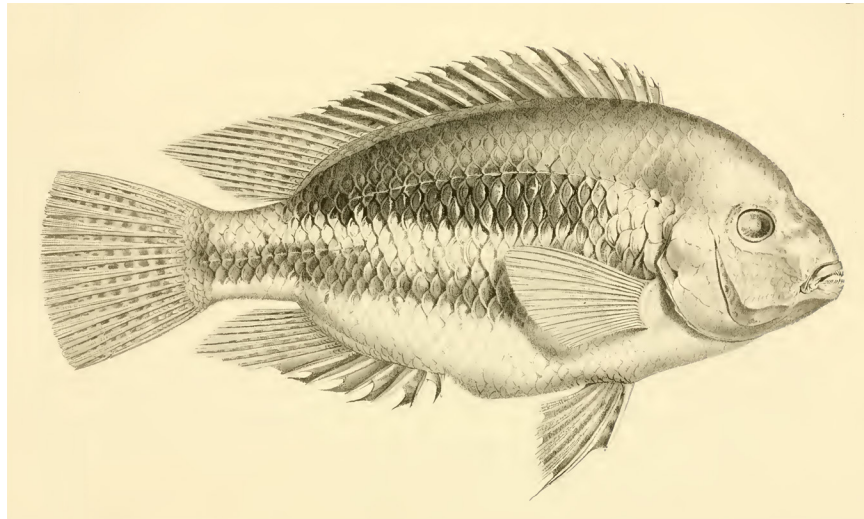
*bi-*, two; *fasciatus*, banded, referring to two longitudinal bands on sides of adults

**Vieja breidohri (Werner & Stawikowski 1987)**

in honor of the authors’ collecting partner Hans-Günther Breidohr (1938-2015), German cichlid aquarist responsible for the discovery and first import of many New World cichlids

**Vieja fenestrata (Günther 1860)**

windowed, referring to “six black vertical bands, crossing a deep black longitudinal band,” i.e., creating a window- or lattice-like pattern



*Vieja bifasciata*. From: Steindachner, F. 1864. Beiträge zur Kenntniss der Chromiden Mejico's und Central-Amerika's. *Denkschriften der Kaiserlichen Akademie der Wissenschaften in Wien, Mathematisch-Naturwissenschaftliche Classe* v. 23 (no. 2): 57-74, Pls. 1-5.

***Vieja guttulata* (Günther 1864)**

diminutive of *guttata*, dotted, presumably referring to fine dappling of dark spots on body and fins

***Vieja hartwegi* (Taylor & Miller 1980)**

in honor of the late Norman E. Hartweg (1904-1964), former Curator of Reptiles at the University of Michigan's Museum of Zoology, who had a broad interest in Mexican biology and made valuable fish collections during his field studies in México (where this cichlid is endemic)

***Vieja maculicauda* (Regan 1905)**

*maculi*-, spot; *cauda*, tail, referring to large dark blotch on caudal peduncle

***Vieja melanurus* (Günther 1862)**

*melano*-, black; *oura*, tail, referring to “deep-black” band along middle of caudal fin [often incorrectly declined as an adjective, *melanura*]

***Vieja zonata* (Meek 1905)**

banded, presumably referring to a broad black band from opercle to caudal fin

***Wajpamheros* Říčan & Piálek 2016**

derived from Maya Chol dialect word *wajpam* meaning “to have mud on one’s face,” referring to how it feeds by inserting mouth and lips into soft substrates (hence mud on the face); *Heros*, an old name for neotropical cichlids, meaning “hero” (see *Heros*, above)

***Wajpamheros nourissati* (Allgayer 1989)**

in honor of Jean Claude Nourissat (1942-2003), founder and long-time president of l'Association France Cichlid, who collected type (note: Nourissat died from malaria three days after returning from a collecting trip to Madagascar)

***Wallaciia* Varella, Kullander, Menezes, Oliveira & López-Fernández 2023**

named for its type species, *W. wallacii*

***Wallaciia anamiri* (Ito & Rapp Py-Daniel 2015)**

*Anāmiri*, Tupí-Guaraní word for dwarf, referring to small size (up to 47.8 mm SL)

***Wallaciia compressiceps* (Ploeg 1986)**

*compressus*, pressed together; *ceps*, head, referring to strongly compressed head

***Wallaciia heckeli* (Ploeg 1989)**

in honor of Austrian ichthyologist Johann Jakob Heckel (1790-1857), who proposed *Crenicichla* (original genus) in 1840 and described its first 10 species (eight, in three genera, still valid today)

***Wallaciia notophthalmus* (Regan 1913)**

*notos*, back; *ophthalmus*, eye, referring to large black ocellus on dorsal fin between 16th and 20th spines

***Wallaciia regani* (Ploeg 1989)**

in honor of Charles Tate Regan (1878-1943), Natural History Museum (London), the last ichthyologist to revise *Crenicichla* (original genus, 1913) before Ploeg

***Wallaciia urosema* (Kullander 1990)**

*oura*, tail; *sema*, signal, referring to its only conspicuous marking, a prominent dark spot at base of caudal fin

***Wallaciia virgatula* (Ploeg 1991)**

striped, referring to straight longitudinal black band from snout tip to caudal-fin blotch, consisting of a preorbital stripe, postorbital blotch, pectoral blotch, and a stripe from operculum to caudal-fin blotch

***Wallaciia wallacii* (Regan 1905)**

in honor of English naturalist Alfred Russel Wallace (1823-1913), who collected (but lost during transport) and illustrated a similar species (probably *W. notophthalmus*), which Regan thought might be identical to this one, in his expedition to the Rio Negro and Rio Uaupés region (1850-1852)