Order CYPRINODONTIFORMES (part 3 of 4)

Suborder CYPRINODONTOIDEI

Family PANTANODONTIDAE Spine Killifishes
3 genera · 8 species

Aliteranodon Meinema & Huber 2023

alis, other, and iter, a way or passage, i.e., “otherwise” or “in another way”; -odon, abridgement of Pantanodon, referring to its “previously unnoticed differences” with that “putatively closely related” genus

Aliteranodon buciner Meinema & Huber 2023
Latin for hornblower or trumpeter, referring to its superior mouth, reaching above the eye and partially above the dorsal area

Aliteranodon filimbi Meinema & Huber 2023
Swahili (national language of Tanzania, type locality) for whistle or flute, referring to its slightly superior mouth, resembling a swollen upper lip, less pronounced that the superior mouth of A. bucine (hence a flute rather than a horn or trumpet)

Aliteranodon ndioko Meinema & Huber 2023
Swahili (national language of Kenya, type locality) for hook, referring to its “extreme underbite, the dentary bent and curved upward like a hook”

Aliteranodon rostratus Meinema & Huber 2023
Latin for beaked, referring to its “bird-like” snout

Aliteranodon stuhlmanni (Ahl 1924)
in honor of Franz Ludwig Stuhlmann (1863-1928), German Colonial Service, who, with Emin Pascha, led the German East Africa Expedition (1889-1892), during which holotype was collected

Malagodon Meinema & Huber 2023
Malag-, from Malagasy, old name for Madagascar, where genus is endemic; odon, tooth, referring to presence of external teeth (vs. their absence on Aliteranodon and Pantanodon)

Malagodon madagascariensis (Arnoult 1963)
-ensis, suffix denoting place: Madagascar, where it is endemic [extinct due to habitat loss and exotic species]

Pantanodon Myers 1955
podus, foot (homologous to the anal fin); oxys, sharp or pointed, referring to its acuminate anal fin

Pantanodon podoxys Myers 1935
-ensis, suffix denoting place: Madagascar, where it is endemic

Pantanodon propinquus Meinema & Huber 2023
Latin for neighboring or similar to, referring to its resemblance to, and nearby distribution of, P. podoxys

Family CYPRINODONTIDAE Pupfishes
10 genera · 112 species/subspecies

Subfamily Cubanichthyinae Island Pupfishes

Cubanichthys Hubbs 1926
Cuba, where genus was thought to be endemic until generic placement of C. pengelleyi; ichthys, fish

Cubanichthys cubensis (Eigenmann 1903)
-ensis, suffix denoting place: Cuba, where it is endemic (including mainland and Isla de la Juventud, or Isle of Pines)

Cubanichthys pengelleyi (Fowler 1939)
in honor of Jamaican physician and medical officer Charles Edward Pengelley (1888-1966), who “obtained” type specimens and “sent interesting details of his experience with them as aquarium fishes”

Yssolebias Huber 2012
yssos, javelin, referring to elongate and narrow dorsal and anal fins with sharp borders; lebias, Greek name for a kind of small fish, first applied to killifishes (“Les Lebias”) by Cuvier (1816) and now a common root-name formation in the order
Yssolebias martae (Steindachner 1876)
of Santa Marta, Colombia, type locality (only one specimen known, perhaps extinct)

Subfamily Cyprinodontinae Pupfishes

Cualac Miller 1956
derived from a Mexican place name of Nahautl origin meaning “where there is good water,” referring to type locality (La Media Luna, San Luis Potosí, México), a “spectacular spring area”

Cualac tessellatus Miller 1956
tessellated, i.e., inlaid with small squares, referring to “mosaic-like or checkered pattern so prominently displayed on the dorsal fin of the male”

Cyprinodon Lacepède 1803
cyprinus, carp or minnow; odon, tooth, i.e., a carp- or cyprinid-like fish but with teeth (hence “tooth carps,” another name for the order)

Cyprinodon albivelis Minckley & Miller 2002
albus, white; velum, sail, referring to white color covering at least \( \frac{1}{3} \) of outer dorsal and anal fins of nuptial males

Cyprinodon alvarezi Miller 1976
in honor of Mexican ichthyologist José Álvarez del Villar (1903–1986), who collected this species in 1952 and intended to describe it but turned it over to Miller to study [extinct in the wild]

Cyprinodon arcuatus Minckley & Miller 2002
arched or shaped or bent like a bow, referring to highly convex dorsal body profile [extinct in 1971 due to habitat alteration and introduced Largemouth Bass]

Cyprinodon artifrons Hubbs 1936
artus, narrow; frons, forehead, proposed as a subspecies of C. variegatus with a narrower bony interorbital compared with C. v. ovinus

Cyprinodon atrorus Miller 1968
atra, black; ora, border, referring to “conspicuous” black terminal band on caudal fin of males

Cyprinodon beltrani Álvarez 1949
in honor of Mexican biologist Enrique Beltrán Castillo (1903–1994) on the occasion of his 25th anniversary as a biologist

Cyprinodon bifasciatus Miller 1968
bi-, two; fasciatus, striped, referring to two prominent lateral stripes: one along midside from head to base of caudal fin, the other from base of pectoral fin to end of anal-fin base

Cyprinodon bobmilleri Lozano-Vilano & Contreras-Balderas 1999
in honor of Robert Rush Miller (1916–2003), University of Michigan, known as “Bob” to his colleagues, for his lifelong devotion to Mexican fishes and his “friendly support” of the authors’ studies

Cyprinodon bondi Myers 1935
in honor of biologist Richard Marshall Bond (1903–1976), who collected types during an ecological investigation of Hispaniolan lakes

Cyprinodon bovinus Meek 1909
like a bull, allusion not explained, perhaps referring to robust body shape of males

Cyprinodon brontotheroides Martin & Wainwright 2013
−oides, having the form of: referring to resemblance of protruding nasal region to the “bizarre” horn–like skull appendages of the extinct odd–toed ungulate family Brontotheriidae

Cyprinodon ceciliae Lozano-Vilano & Contreras-Balderas 1993
in honor of Cecilia Contreras Lozano, the senior author’s daughter and the junior author’s niece, who helped in the 1988 trip during which type was collected [extinct when spring nearly dried in 1991]

Cyprinodon dearborni Meek 1909
in honor of American ornithologist Ned Dearborn (1865–1948), who collected type

Cyprinodon desquamator Martin & Wainwright 2013
de-, remove; squamator, scaler, referring to its scale–eating behavior

Cyprinodon diabolis Wales 1930
devilish or of the devil, referring to Devils Hole, Ash Meadows, Nevada, only area of occurrence (believed to be the smallest natural range of any known vertebrate species)

Cyprinodon elegans Baird & Girard 1853
elegant, allusion not explained, perhaps referring to more elongate shape compared to other Cyprinodon described
in same publication

**Cyprinodon eremus** Miller & Fuiman 1987
lonely or alone, referring to isolated type locality (spring-fed pond, Organ Pipe Cactus National Monument, Pima County, Arizona, USA)

**Cyprinodon esconditus** Strecker 2002
hidden, referring to prior failure to detect this species among specimens not assignable to one of the other pupfish species in Laguna Chichancanab (Yucatán, México)

**Cyprinodon eximius** Girard 1859
exceptional, allusion not explained, perhaps referring to its being the largest *Cyprinodon* species “so far observed in North America” at the time

**Cyprinodon fontinalis** Smith & Miller 1980
living in or near springs, referring to its occurrence in five springs and their outflows in Bolsón de los Muertos, Chihuahua, Mexico

**Cyprinodon higuey** Rodriguez & Smith 1990
named for the Higüey people who originally inhabited eastern Hispaniola, where this species occurs (a coastal lake in eastern Dominican Republic)

**Cyprinodon inmemoriam** Lozano-Vilano & Contreras-Balderas 1993
in memory, referring to its being described after it went extinct shortly after its discovery in 1983 due to dewatering of spring habitat

**Cyprinodon julimes** De la Maza-Benignos & Vela-Valladares 2009
named for municipality of Julimes, Chihuahua, México, where this pupfish is known from a single thermal spring

**Cyprinodon labiosus** Humphries & Miller 1981
large-lipped, referring to its “enlarged and convoluted” lips

**Cyprinodon laciniatus** Hubbs & Miller 1942
laciniate (divided into deep narrow irregular segments), referring to “strongly and diagnostically laciniate scale margins”

**Cyprinodon latifasciatus** Garman 1881
latus, broad; fasciatus, banded, presumably referring to much wider caudal band compared to *C. variegatus* [extinct due to habitat destruction, last seen in 1903]

**Cyprinodon longidorsalis** Lozano-Vilano & Contreras-Balderas 1993
longus, long; dorsalis, of the back, referring to long dorsal fin of mature males, reaching caudal fin when depressed [extinct in wild]

**Cyprinodon macrolepis** Miller 1976
macro-, large; lepis, scales, referring to its distinctively large scales, 23 or 24 along lateral line

**Cyprinodon macularius** Baird & Girard 1853
spotty, referring to color pattern of females and non-breeding males

**Cyprinodon maya** Humphries & Miller 1981
named for the Maya, indigenous peoples of Mesoamerica in pre-Columbian times, who occupied the region (Yucatán, México) where this pupfish occurs

**Cyprinodon meeki** Miller 1976
in honor of ichthyologist Seth Eugene Meek (1859-1914), who “pioneered in exploring the Mexican freshwater fish fauna”

**Cyprinodon nazas** Miller 1976
named for the Río Nazas basin of northern México (Durango, Zacatecas, Coahuila), where it is endemic

**Cyprinodon nevadensis nevadensis** Eigenmann & Eigenmann 1889
-ensis, suffix denoting place: referring to type locality, Saratoga Spring, Death Valley, Inyo County, California, USA, which the authors erroneously placed in Nevada

**Cyprinodon nevadensis amargosae** Miller 1948
of the Armagosa River, San Bernardino County, California, USA, where it is endemic

**Cyprinodon nevadensis calidae** Miller 1948
of a calida, warm spring, referring to Tecopa Hot Springs, Inyo County, California, USA, where it occurred [extinct due to modification of springs for bathhouses; last seen in 1970]

**Cyprinodon nevadensis mionectes** Miller 1948
Greek for “one who has less,” referring to its reduced size and lower number of fin rays and scales compared to other *C. nevadensis* subspecies
Cyprinodon nevadensis pectoralis Miller 1948
pectoral, referring to increased number of pectoral-fin rays compared to other C. nevadensis subspecies

Cyprinodon nevadensis shoshone Miller 1948
Native American word meaning “warm water,” referring to Shoshone Spring outflow, Inyo County, California, USA, where it is endemic

Cyprinodon nichollsi Smith 1989
in honor of Kenneth W. Nicholls (no other information available), for “support of fieldwork”

Cyprinodon pachycephalus Minckley & Minckley 1986
pachy, thick; cephalus, head, referring to greatly enlarged head, its length >1/3 and width >1/4 SL, with “broad and massive” jaws

Cyprinodon pecosensis Echelle & Echelle 1978
-ensis, suffix denoting place: Pecos River system of Texas and New Mexico, USA, where it is endemic

Cyprinodon pisteri Miller & Minckley 2002
in honor of fisheries biologist Edwin Philip ("Phil") Pister (b. 1929); “For almost four decades, Phil Pister has unerringly and effectively performed the daunting task of preserving the integrity of natural aquatic habitats and biotas in North American deserts, along the way teaching others to do the same. His infectious and tireless persistence, enthusiasm, optimistic outlook, and unique capability to redirect conflicting views toward common goals have led to significant and enviable successes in equating science and a strong environmental ethic with political reality.”

Cyprinodon radiosus Miller 1948
rayed, referring to higher average number of dorsal-, anal- and pelvic-fin rays compared to congeners from Death Valley (California, USA) system (macularius, nevadensis, diabolis, salinus)

Cyprinodon riverendi (Poey 1860)
in honor of Cuban naturalist Luis Le Riverend, who provided type; he “added to the knowledge of natural history” in Cuba (type locality) “through his collections and his aquariums” (translation)

Cyprinodon rubrofluviatilis Fowler 1916
rubro-, red; fluviatilis, of a river, referring to the Red River drainage of Texas and Oklahoma, the “most northern inland region” in which the genus naturally occurs

Cyprinodon salinus salinus Miller 1943
of salt, named for Salt Creek, Death Valley, California, USA, where it is endemic

Cyprinodon salinus milleri LaBounty & Deacon 1972
in honor of Robert Rush Miller (1916–2003), University of Michigan, who described the nominate form in 1943

Cyprinodon salvadori Lozano-Vilano 2002
in honor of Salvador Contreras-Balderas (1936–2009), for his “life-long dedication” to the study and teaching about Mexican fishes, and his “friendly support” of the author’s studies over many years [note: Lozano-Vilano is married to Contreras-Balderas’ brother]

Cyprinodon simus Humphries & Miller 1981
snub-nosed, referring to its short, blunt snout

Cyprinodon suavium Strecker 2005
kiss, referring to distinctive protruded appearance of its lips
Cyprinodon tularosa Miller & Echelle 1975
named for the endorheic Tularosa basin on New Mexico, USA, where it is endemic

Cyprinodon variegatus variegatus Lacepède 1803
variegated, referring to variable color patterns of brown spots and bands on sides

Cyprinodon variegatus baconi Breder 1932
in honor of Daniel Bacon, sponsor of the Bacon–Andros Expedition in the Caribbean, during which type was collected; Bacon was also Breder's host in Long Cay, Bahamas

Cyprinodon variegatus hubbsi Carr 1936
in honor of ichthyologist Carl L. Hubbs (1894-1979), who suggested this form of C. variegatus be described as a new species

Cyprinodon variegatus ovinus (Mitchill 1815)
of sheep, referring to Sheep's–Head Killifish, local name of C. variegatus in New York, USA (now widely known as Sheepshead Minnow)

Cyprinodon verecundus Humphries 1984
mysterious or shy, referring to how it was overlooked in previous investigations of pupfishes of the Yucatán Peninsula of México

Cyprinodon veronicae Lozano-Vilano & Contreras-Balderas 1993
in honor of Verónica Contreras Arqueita, the junior author's daughter and the senior author's niece, for her help in the 1984 trip during which type was collected [extinct in wild]

Floridichthys Hubbs 1926
Florida (USA), where Hubbs stated the genus “appears to be wholly confined” (but Hubbs later found F. polyommus to occur along the Yucatán Peninsula of México); ichthys, fish

Floridichthys carpio (Günther 1866)
carp (Cyprinus carpio), allusion not explained, probably referring to its carp-like shape, especially since it is larger than most of its presumed congeners in Cyprinodon

Floridichthys polyommus Hubbs 1936
poly, many; omma, eye, referring to numerous ocellated spots on posterior body of adult males

Garmanella Hubbs 1936
-ella, diminutive connoting endearment: “dedicated to the respected memory” of Harvard ichthyologist–herpetologist Samuel Garman (1843-1927), with “special regard” to his 1895 monograph on cyprinodontiform fishes; “In a prospected second revision of this group, left unfinished by his death, Garman recognized the genotype of Garmanella as a undescribed species” [treated as a junior synonym of Jordanella by many workers]

Garmanella pulchra Hubbs 1936
lovely or beautiful, described as a “very pretty species” and “handsomely marked” [placed in Jordanella by many workers]

Jordanella Goode & Bean 1879
-ella, diminutive connoting endearment: in honor of ichthyologist David Starr Jordan (1851-1931)

Jordanella floridae Goode & Bean 1879
of Florida, USA, where it is endemic (but introduced elsewhere)

Megupsilon Miller & Walters 1972
mega, large; upsilon, the Greek letter Y, referring to exceptionally large Y chromosome in males

Megupsilon aporus Miller & Walters 1972
a-, without; porus, pores, referring to lack of pores in sensory cephalic canal system [extinct; last surviving captive specimens perished in 2014]

Subfamily Orestiinae Andean Pupfishes

Orestias Valenciennes 1839
named for the Greek mythological figure Orestes, the “nymph of the mountains” (translation), referring to their occurrence in the Andes [genus is feminine, so all adjectival names, originally ending in -us (e.g., albus, robustus), have been emended (e.g., alba, robusta) per Cruz-Jofré et al. (2013)]

Orestias agassii Valenciennes 1846
in honor of zoologist-geologist Louis Agassiz (1807-1873), who collected type, but was specifically honored (along with O. F. Müller, see O. mulleri) for his contributions to science [three spellings appear in the publication: agassii, agassizii, agasiisii; Parenti (1994), as the first reviser to analyze all three spellings, chose “agassii” since it appears above the original description and is used by most modern workers; according to Huber (2014), Valenciennes may have deleted the “z” in order to create a phonetic spelling that was easier for non-French readers to pronounce]
**Orestias alba** Valenciennes 1846
white, one of two species from Lake Titicaca locally known by their colors, a yellow species (see *O. lutea*) and this one, described as “gilded green” in alcohol but probably “whiter” in life (translation)

**Orestias ascotanensis** Parenti 1984
-ensis, suffix denoting place: Lago Ascotan, a salt basin in northwestern Chile, where it is endemic

**Orestias chungarensis** Vila & Pinto 1987
-ensis, suffix denoting place: Lake Chungará, Chilean Altiplano, where it is endemic

**Orestias crawfordi** Tchernavin 1944
in honor of malacologist George I. Crawford (1910-2011), British Museum (Natural History), Deputy Leader of Percy Sladen Trust Titicaca Expedition (1937), during which type was collected

**Orestias ctenolepis** Parenti 1984
ctenos, comb; lepis, scale, referring to ctenoid scales over most of body of adult males

**Orestias cuvieri** Valenciennes 1846
in honor of French naturalist and zoologist Georges Cuvier (1769-1832); Valenciennes was Cuvier’s pupil and successor as author of the 22-volume *Histoire Naturelle des Poissons* (1828-1850)

**Orestias elegans** Garman 1895
elegant, fine or select, allusion not explained, perhaps referring to more elongate shape compared to the similar *O. agassii*

**Orestias empyraeus** Allen 1942
named for Empyrean, the highest heaven in ancient cosmologies, referring to its “extremely elevated habitat” (3048–4267 m)

**Orestias forgeti** Lauzanne 1981
in honor of Lauzanne's friend J. M. Forget (no other information available)

**Orestias frontosa** Cope 1876
with a broad head, presumably referring to wider head compared to *O. ortonii* (=agassii)

**Orestias gilsoni** Tchernavin 1944
in honor of botanist Hugh Cary Gilson (1910-2000), Leader of Percy Sladen Trust Titicaca Expedition (1937), during which type was collected

**Orestias imarpe** Parenti 1984
abbreviation for Instituto del Mar del Peru, which “helped to inspire a cooperative study of the Titicaca Basin”

**Orestias jussiei** Valenciennes 1846
in honor of Joseph de Jussieu (1704-1779), French botanist and explorer in South America, who illustrated this species and *O. pentlandi*; according to Huber (2014), Valenciennes may have deleted the “u” in order to create a phonetic spelling that was easier for non-French readers to pronounce

**Orestias laucaensis** Arratia 1982
-ensis, suffix denoting place: Río Lauca, Parinacota, Chile, elevation ~4300 m, type locality

**Orestias lutea** Valenciennes 1846
yellow, one of two species from Lake Titicaca locally known by their colors, a white species (see *O. alba*) and this
one, pale in alcohol but with a yellowish background that indicates the fish is more yellow in life (and indeed it is)

**Orestias minima** Tchernavin 1944
least, at 36 mm SL, the smallest *Orestias* known

**Orestias minuta** Tchernavin 1944
minute or very small, referring to maximum size (37 mm SL) of type specimens, both ripe females

**Orestias mooni** Tchernavin 1944
in honor of biologist Harold Philip Moon (1919-1982), Freshwater Biological Association (UK), member of Percy Sladen Trust Titicaca Expedition (1937), during which type was collected

**Orestias mulleri** Valenciennes 1846
patronym identified only as “Muller,” one of three *Orestias* species Valenciennes named after famous biologists of the day, including *O. agassii* (see above) and *O. owenii* (Richard Owen, now a junior synonym of *O. jussiei*); probably in honor of Danish naturalist Otto Friedrich Müller (1730-1784), whose *Fauna Danica* (also known as *Zoologica Danica*) is cited three times in the volume, and who was earlier praised by Cuvier & Valenciennes (1828) as “one of the most painstaking and accurate observers of the 18th century, made famous by his microscopic discoveries” (translation) [Huber (2001) states that name honors Johann Friedrich “Fritz” Theodor Müller (1822-1897), but he was still at university and medical school in 1846 and had not yet emigrated to Brazil where he conducted his famous studies on mimicry in butterflies]

**Orestias multiporis** Parenti 1984
multi-, many; *porus*, pore, referring to multiple series of neuromasts along median dorsal ridge and lateral series

**Orestias munda** Parenti 1984
neat or trim, referring to unadorned, nearly uniform color pattern from juvenile through adult males and females

**Orestias olivacea** Garman 1895
olive-colored, referring to “olive” color of larger specimens (7.6-11.3 cm) in and “olivaceous mottled with brownish” color of smaller specimens (5 cm)

**Orestias parinacotensis** Arratia 1982
-**ensis**, suffix denoting place: Parinacota, northern Chile, where type locality, a bofedales (wetland) at 4300 m, is situated

**Orestias pentlandii** Valenciennes 1846
in honor of Joseph Barclay Pentland (1796-1873), Irish explorer and diplomat in Bolivia, who collected several species of *Orestias* from Lake Titicaca, including type of this one

**Orestias piacotensis** Vila 2006
-**ensis**, suffix denoting place: Lake Piacota, Parinacota Province, Chilean Altiplano, where it is endemic

**Orestias polonorum** Tchernavin 1944
Poles (i.e., people of Poland), presumably referring to how “first specimens of this species were collected by a Polish zoologist, [Konstanty] Jelski, member of the Count K. Branicki Expedition to South America in 1866-1867, and the British Museum of Natural History obtained these specimens through the courtesy of the Warsaw University”

**Orestias punti** Tchernavin 1944
of Bahia de Puno, Lake Titicaca, Peru, type locality

**Orestias richersoni** Parenti 1984
in honor of limnologist (and later evolutionary anthropologist) Peter J. Richerson (b. 1943), University of California, Davis, who provided the impetus for a multidisciplinary and international study of Lake Titicaca

**Orestias robusta** Parenti 1984
strong or robust, referring to its “overall robust appearance”
Orestias rotundipinnis Parenti 1984

*rotundus*, round; *pinnis*, fin, referring to rounded margin of pectoral fins

Orestias silustani Allen 1942

of Silustan, “nearby Inca ruin on the shore of Lake Umayo [Peru], overlooking the weedy habitat” from which type was collected

Orestias taquiri Tchernavin 1944

named for Taquiri Island, Lesser Lake Titicaca, Bolivia, only known area of occurrence

Orestias tchernavini Lauzanne 1981

patronym not identified but clearly in honor of Russian ichthyologist Vladimir V. Tchernavin (1887-1949), author of 1944 revision of the subfamily (he earlier achieved fame as one of the few prisoners of the Soviet Gulag to escape and live abroad, eventually settling at the Natural History Museum of London)

Orestias tschudii Castelnau 1855

in honor of Swiss naturalist and “learned traveler” (translation) Johann Jakob von Tschudi (1818-1889), author of *Faune du Pérou* and other works

Orestias tutini Tchernavin 1944

in honor of botanist Thomas Gaskell Tutin (1908-1987), member of Percy Sladen Trust Titicaca Expedition (1937), during which type was collected

Orestias uruni Tchernavin 1944

named for Uruni Bay, north side of Capachica Peninsula, Lake Titicaca, Peru, only known area of occurrence

Orestias ututo Parenti 1984

named for Lago Ututo, Peru, type locality

Pseudorestias Arratia, Vila, Lam, Guerrero & Quezada-Romegialli 2017

*pseudo*-, false, i.e., although this genus may have “overall similarities” with *Orestias*, such an appearance is false

*Pseudorestias lirimensis* Arratia, Vila, Lam, Guerrero & Quezada-Romegialli 2017

*-enis* suffix denoting place: Lirima, a small village in northern Chile that is irrigated by Charvinto Creek, type locality

**Family PROFUNDULIDAE** Middle American Killifishes

2 genera · 14 species

Profundulus Hubbs 1924

*pro*-, in front of or before, allusion not explained but clearly reflecting Hubbs’ belief (“it seems not improbable that *Profundulus*, of all American genera, diverges least from a general ancestral cyprinodont type”) that this genus is ancestral compared with *Fundulus*, its congeneric at the time (name does not mean “deep” as stated by FishBase and others)

Profundulus balsanus Ahl 1935

*anus*, belonging to: Río Balsas system, Guerrero, México, where Ahl believed type locality (Malinaltepec River) was situated; in actuality, that river is a tributary of the Papagayo River and does not occur in the Balsas system

Profundulus chimalapensis Del Moral-Flores, López-Segovia & Hernández-Arellano 2020

*enis*, suffix denoting place: Selva de Los Chimalapas, geographic area in Oaxaca, México, type locality (Chimalapa means “jicara [cup or bowl made from the fruit of a calabash tree] of gold” in Castilian)

Profundulus emilioi Calixto-Rojas, Lira-Noriega, Rubio-Godoy, Pérez-Ponce de Léon & Pinacho-Pinacho 2023

in honor of Emilio Martínez Ramírez, professor of ichthyology, colleague and friend, “always willing to study fishes” in Oaxaca, México, and who “kindly opened the doors of his lab” to the first and fourth authors “in their early student days”

Profundulus guatemalensis (Günther 1866)

*enis*, suffix denoting place: Guatemala, where it occurs (also occurs in Ecuador)

Profundulus kreiseri Matamoros, Schaefer, Hernández & Chakrabarty 2012

in honor of biologist Brian R. Kreiser, University of Southern Mississippi (USA), doctoral advisor and friend of the first author

Profundulus mixtlanensis Ornelas-García, Martínez-Ramírez & Doadrio 2015

*enis*, suffix denoting place: Mixtlan (*mixtli*, cloud and *-tlan*, place, i.e., “the place of the clouds”), Nahuatl name used in Tenoch culture for the Mixteca region of Oaxaca, México, where this killifish occurs
**Profundulus oaxacae** (Meek 1902)  
of Oaxaca, México, where it is endemic to the Verde River basin

**Profundulus parentiae** Matamoros, Domínguez-Cisneros, Velázquez-Velázquez & McMahan 2018  
in honor of Lynne R. Parenti (b. 1954), Smithsonian Institution, for "many important contributions to our knowledge of the systematics, biogeography, biology, and morphology of cyprinodontiforms as well as numerous other groups of fishes"

**Profundulus punctatus** (Günther 1866)  
spotted, described as having a vertical dark-purple or violet spot at center of each scale (especially on the tail), and 3–4 series of blackish dots on dorsal fin

**Profundulus rei** Calixto-Rojas, Lira-Noriega, Rubio-Godoy, Pérez-Ponce de Léon & Pinacho-Pinacho 2023  
named for the first author’s pet cat Rei, his "companion for 11 years, during which his academic formation took place (BSc, MSc and almost all PhD), and was his constant attendant while measuring all the fish specimens for this work"; the cat’s name was inspired by the fictional character Rei Ayanami from the Japanese animation series *Neon Genesis Evangelion*

**Tlaloc Álvarez & Carranza 1951**  
named for Tlaloc, god of water in Aztec mythology, presumably referring to occurrence of *T. mexicanus* (=*labialis*) in Chiapas, México

**Tlaloc candalarious** (Hubbs 1924)  
-ius, pertaining to: Candalaria, a limestone spring near the Mexican boundary of Guatemala, type locality (also occurs in Chiapas, México)

**Tlaloc hildebrandi** (Miller 1950)  
in memory of Samuel F. Hildebrand (1883-1949), for his "significant contributions to our understanding of the ichthyology of Central America"

**Tlaloc labialis** (Günther 1866)  
of the lips, referring to “well developed, broad” lips, extending to angle of mouth

**Tlaloc portillorum** (Matamoros & Schaefer 2010)  
-orum, commemorative suffix, plural: in honor of Honduran brothers Hector (b. 1963, ecologist and environmental consultant) and Danilo (b. 1965) Portillo, life-long fieldwork collaborators who guided senior author to type locality and provided valuable natural history information about the area

**Family GOODEIDAE** Goodeids  
19 genera/subgenera  53 species/subspecies

**Subfamily Empetrichthyinae** Springfishes

**Crenichthys** Hubbs 1932  
creno-, spring, referring to occurrence in desert springs; *ichthys*, fish

**Crenichthys baileyi baileyi** (Gilbert 1893)  
in honor of American naturalist and ethnographer Vernon Orlando Bailey (1864-1942), who collected type with C. Hart Merriam (see *Empetrichthys merriami*)

**Crenichthys baileyi albivallis** Williams & Wilde 1981  
albus, white; vallis, valley, referring to White River Valley of Nevada (USA), where it is endemic

**Crenichthys baileyi grandis** Williams & Wilde 1981  
large, the largest subspecies of *C. baileyi*

**Crenichthys baileyi moapae** Williams & Wilde 1981  
of the Moapa River system (specifically, headwater streams), Clark County, Nevada (USA), where it is endemic

**Crenichthys baileyi thermophilus** Williams & Wilde 1981  
themos, heat; philo, to love, referring to its occurrence in warm spring waters

**Crenichthys nevadae** Hubbs 1932  
of Nevada (USA), where it is endemic to thermal spring systems of Railroad Valley in Nye County

**Empetrichthys** Gilbert 1893  
em-, within and *petra*, rock, referring to stone-like pharyngeal teeth of *E. merriami*; *ichthys*, fish

**Empetrichthys latos latos** Miller 1948  
latus, wide; os, mouth, referring to wider mouth compared to *E. merriami*

**Empetrichthys latos concavus** Miller 1948  
concave, referring to marked concavity of top of head [extinct by 1960 due to introduced carp and bullfrogs]
**Empetrichthys latos pahrump** Miller 1948

named for Pahrump Ranch in Pahrump Valley, Nevada, USA, where it was endemic [extinct in 1958 due to introduced carp and bullfrogs and excessive spring pumping]

**Empetrichthys merriami** Gilbert 1893

in honor of American naturalist and physician C. Hart Merriam (1855-1942), who led Death Valley (California, USA) expedition during which he collected type with Vernon O. Bailey (see *Crenichthys baileyi*) [extinct in the early 1950s due to introduced bullfrogs and crayfish]

Subfamily Goodeinae  
Goodeids or Splitfins

**Allodontichthys** Hubbs & Turner 1939

*Allos*, different and *odon*, tooth, referring to distinctly shaped jaw teeth of *A. zonistius*, “instead of being regularly conic (everywhere evenly round in cross section) are definitely compressed and shouldered within the slender conic tip and are keeled (rather weakly) at either edge of the anterior face”;

**Allodontichthys hubbsi** Miller & Uyeno 1980

in honor of ichthyologist Carl L. Hubbs (1894-1979), “whose early studies on goodeids set the stage for subsequent understanding of this compact but highly diversified family”

**Allodontichthys polylepis** Rauchenberger 1988

*poly*, many; *lepis*, scales, referring to greater number of scales along lateral line compared to congeners

**Allodontichthys tamazulae** Turner 1946

of Tamazula, a town in Jalisco, México, where type locality is situated

**Allodontichthys zonistius** (Hubbs 1932)

*zon*(us), band; *istius*, sail, referring to jet-black bands on dorsal fin

**Alloophorus** Hubbs & Turner 1939

*Allos*, different; *oön*, egg; *phoras*, bearing, referring to its distinctive ovarian structure, e.g., ovarian septum entire and trophotaeniae (see *Allotoca*) not rosette-shaped

**Alloophorus robustus** (Bean 1892)

stout, allusion not explained, perhaps referring to chunky appearance compared to presumed congeners in *Fundulus* (*Fundulidae*)

**Allotoca** Hubbs & Turner 1939

*Allos*, different; *tokos*, offspring, referring to the trophotaeniae, ribbon-like extensions that hang from anal region of developing goodeine embryos and absorb nutrients from the mother’s ovarian fluid

**Allotoca catarinae** (de Buen 1942)

of Laguna Santa Catarina, Michoacán, México, type locality

**Allotoca diazi** (Meek 1902)

in honor of José de la Cruz Porfirio Díaz Mori (1830-1915), President of México from 1877-1880 and 1884-1911

**Allotoca dugesii** (Bean 1887)

in honor of French physician Alfredo Dugès (1826-1910), often called the father of Mexican herpetology, who collected type

**Allotoca goslinei** Smith & Miller 1987

in honor of ichthyologist William A. Gosline (1915-2002), University of Michigan, for his work on sensory canals in cyprinodontoid fishes [possibly extinct in wild]

**Allotoca maculata** Smith & Miller 1980

spotted, referring to black spot at base of caudal fin

**Allotoca meeki** (Álvarez 1959)

in honor of ichthyologist Seth Eugene Meek (1859-1914), who authored the first review of Mexican fishes in 1904

**Allotoca regalis** (Álvarez 1959)

regal, referring to Los Reyes (the kings), Michoacán, México, near type locality [placed in a monotypic *Neoophorus* by some workers, but that genus is a junior synonym of *Allotoca* based on placement of type species, *A. diazi*; if *A. regalis* warrants its own genus, then a new one needs to be proposed for it]

**Allotoca zacapuensis** Meyer, Radda & Domínguez-Domínguez 2001

*-ensis*, suffix denoting place: Laguna de Zacapu, Michoacán, México, type locality

**Ameca** Miller & Fitzsimons 1971

named for upper Río Ameca basin (primarily in the Río Teuchitlán springs), Jalisco, México, where it is endemic
Ameca splendens Miller & Fitzsimons 1971
bright, shining or glowing, referring to its “striking” colors in life

Ataeniobius Hubbs & Turner 1939
\(\sigma\)-, without; \(taenia\), band; \(bios\), means of living, referring to lack of functional trophotaeniae (see Allotoca) in newborn fish

Ataeniobius toweri (Meek 1904)
in honor of its discoverer, William L. Tower (1872-1955), evolutionary biologist, University of Chicago (USA)

Chapalichthys Meek 1902
named for Lago de Chapal, near Ocotlan, Jalisco, México, type locality of \(C.\ encaustus\); \(ichthys\), fish

Chapalichthys encaustus (Jordan & Snyder 1899)
branded, referring to nine vertical bands on median part of body

Chapalichthys pardalis Álvarez 1963
leopard, referring to its circular black spots, like those of a leopard

Characodon Günther 1866
\(charax\), Greek word meaning “palisade of pointed sticks”; \(odon\), tooth, presumably referring to “about twenty smallish teeth in each jaw” of \(C.\ lateralis\)

Characodon audax Smith & Miller 1986
bold or daring, referring to its aggressive behavior

Characodon garmani Jordan & Evermann 1898
in honor of Harvard ichthyologist-herpetologist Samuel Garman (1843-1927), for his “valuable studies” of cyprinodontoid fishes [extinct]

Characodon lateralis Günther 1866
of the sides, referring to darker (than brownish-olive body) band running from eye to caudal-fin root, sometimes broken up into a series of brownish black spots (band most evident in preserved specimens)

Girardinichthys Bleeker 1860
named for ichthyologist-herpetologist Charles Girard (1822-1895), whose 1859 work on cyprinodontoid fishes mentioned a form that Bleeker believed represented a new genus and species, now a junior synonym of \(G.\ viviparus\); \(ichthys\), fish

Subgenus Girardinichthys

Girardinichthys multiradiatus (Meek 1904)
\(multi\)-, many; \(radiatus\), rayed, referring to its long (>20 rays) dorsal and anal fins

Girardinichthys viviparus (Bustamante 1837)
livebearer (as are all members of the subfamily), but at the time believed to be a cyprinid that gave birth to live young [note: the first Mexican fish scientifically described by a Mexican]

Subgenus Hubbsina de Buen 1940
\(-\text{ina}\), belonging to: ichthyologist Carl L. Hubbs (1894-1979); when paired with the specific epithet of \(G.\ turneri\), the combined name honors the biologists who collaborated on a seminal revision of the goodeids in 1939

Girardinichthys ireneae Radda & Meyer 2003
in honor of Radda’s wife Irene

Girardinichthys turneri (de Buen 1940)
in honor of zoologist Clarence Lester Turner (1890-1969); when paired with the genus-level epithet of Hubbsina,
the combined name honors the biologists who collaborated on a seminal revision of the goodeids in 1939 [probably extinct; not seen since the 1980s]

**Goodea** Jordan 1880  
- *ea*, belonging to: ichthyologist George Brown Goode (1851–1896), Director, U.S. National Museum, and “one of the most scholarly of modern writers on fishes” (per Jordan & Evermann 1896)

**Goodea atripinnis** Jordan 1880  
*ater*, black; *pinna*, fin, referring to “chiefly black” vertical fins, especially on distal half

**Ilyodon** Eigenmann 1907  
*i-yes, ooze; edon*, tooth, allusion not explained, perhaps referring to how single series of bicuspid teeth of *I. paraguayense* (*‘furcident’), along with its alimentary canal (described as three times as long as entire fish) are adaptations for grazing on *afwuchs* and detrital matter

**Ilyodon cortesae** Paulo-Mayá & Trujillo-Jiménez 2000  
in honor of María Teresa Cortés, for her “outstanding” (translation) contributions to the development of Mexican ichthyology [treated as a synonym of *I. whitei* by some workers]

**Ilyodon fuscatus** (Jordan & Gilbert 1882)  
*fuscatus*, forked; *dens*, teeth, referring to anterior teeth, all bicuspid or Y-shaped

**Ilyodon lennoni** Meyer & Förster 1983  
in honor of singer-songwriter John Lennon (1940–1980), formerly of The Beatles [treated as a synonym of *I. whitei* by some workers]

**Ilyodon whitei** (Meek 1904)  
in honor of E. A. White, Interocceanic Railway of Mexico (Mexico City), who took a “personal interest” in Meek’s work, for “many favors received through his courtesy,” which “resulted in considerable substantial aid”

**Neotoca** Hubbs & Turner 1939  
*neo*, new; *tokos*, offspring, i.e., a new type of embryo, presumably a general reference to trophotaeniæ (see *Allotoca*)

**Neotoca bilineata** (Bean 1887)  
*bi-*, two; *lineatus*, lined, referring to two vertical lines on body of females

**Skiffia** Meek 1902  
- *ia*, belonging to: Frederick J. V. Skiff (1851–1921), Director of the Field Columbian Museum (now the Field Museum, Chicago, USA), where Meek was Assistant Curator of Zoology at the time

**Skiffia francésae** Kingston 1978  
in honor of Frances H. Miller (1919–1987), daughter of Carl L. Hubbs (see *Hubbsina*) and wife and collecting partner of Mexican fish expert Robert Rush Miller, for her “help in furthering our understanding of Mexican fishes” [extinct in wild]

**Skiffia lermae** Meek 1902  
of the Río Lerma system, where type locality (Patzcuaro Lake at Parzvuaro, Michoacan, México) is situated

**Skiffia multiplicata** (Pellegrin 1901)  
*multi-*, many; *punctatus*, spotted, referring to dark spot on posterior margin of each scale on upper half of body

**Xenoophorus** Hubbs & Turner 1939  
*xenos*, strange; *oön*, egg; *phorus*, bearing, referring to distinctive structure of ovary; e.g., ovarian flaps thick and trophotaeniæ (see *Allotoca*) “very considerably elongated, when fully developed about reaching end of caudal fin, not lobate, asymmetrical”

**Xenoophorus captivus** (Hubbs 1924)  
captive, allusion not explained, probably referring to Hubbs’ hypothesis that it derived from *Goodea atripinnis* (presumed closest relative) after isolation following stream capture

**Xenotaenia** Turner 1946  
*xenos*, strange; *taenia*, ribbon or band, but in this case possibly short for trophotaeniæ (see *Allotoca*); since its trophotaeniæ “are unlike any others in the subfamily, the genus is named for [this] character”

**Xenotaenia resolanae** Turner 1946  
of Río Resolana, ~40 km southwest of Autlan, Jalisco, México, type locality

**Xenotoca** Hubbs & Turner 1939  
*xenos*, strange; *toca*, offspring (i.e., embryo), presumably a general reference to trophotaeniæ (see *Allotoca*)

**Xenotoca doadrioi** Domínguez-Domínguez, Bernal-Zuñiga & Piller 2016  
in honor of the “prestigious” ichthyologist Ignacio Doadrio (b. 1957), Museo Nacional de Ciencias Naturales (Spain), who has “strongly contributed to the study and knowledge of Mesoamerican fish diversity”
Xenotoca eiseni (Rutter 1896)
in honor of Gustav Eisen (1847-1940), Curator of Marine Invertebrates, California Academy of Sciences (San Francisco, USA), who collected type

Xenotoca lyonsi Domínguez-Domínguez, Bernal-Zuñiga & Piller 2016
in honor of the "prominent" ichthyologist John Lyons, Wisconsin Department of Natural Resources (now retired), for "substantial contributions to our understanding of the distribution, ecology, diversity, and conservation status of fishes in Mexico, and to goodeids in particular"

Xenotoca melanosoma Fitzsimons 1972
melano-, black; soma, body, referring to "nearly jet-black" adult males and "dark-bodied" females

Xenotoca variata (Bean 1887)
spotted, referring to numerous dark spots on lower half of body

Zoogoneticus Meek 1902
-icus, having the nature of: zoon, animal; gonos, offspring, i.e., live young, referring to its viviparity, which Meek used to distinguish it from the superficially similar Fundulus (Fundulidae)

Zoogoneticus purhepechus Domínguez-Domínguez, Pérez-Rodríguez & Doadrio 2008
derived from Purhepecha, name of indigenous ethnic group who inhabited part of the distribution range of this species, including type locality (Zamora, Michiacán, México)

Zoogoneticus quitzeoensis (Bean 1898)
-enis, suffix denoting place: Lake Quitzeo (now known as Cuitzeo), Michoacán, México, type locality

Zoogoneticus tequila Webb & Miller 1998
named for Volcan Tequila (2920 m), which “looms north” of type locality (Río Teuchitlán, Río Ameca drainage, at eastern edge of Teuchitlán, Jalisco, México)

Family FUNDULIDAE Topminnows
6 genera/subgenera · 46 species/subspecies

Fundulus Lacepède 1803
fundus, bottom; -ulus, a diminutive suffix, i.e., a “small burrower,” referring to “mudfish,” local name for F. heteroclitus in South Carolina (USA), perhaps referring to their occurrence in muddy pools, creeks and ditches, and/or to how they bury 15–20 cm into the mud during winter

Subgenus Fundulus

Fundulus albolineatus Gilbert 1891
albus, white; lineatus, lined, referring to rows of scales on males with “interrupted whitish streaks, most conspicuous on hinder half of body” [extinct by 1900 due to habitat modification, dewatering and exotics]

Fundulus bifax Cashner & Rogers 1988
two-faced, referring to strong resemblance with F. catenatus

Fundulus catenatus (Storer 1846)
chained, allusion not explained, probably referring to series of dots and dashes that form lines on flanks

Fundulus confluentus Goode & Bean 1879
flowing together, allusion not explained, perhaps referring to confluence of salt and fresh water at type locality (Lake Monroe, Florida, USA), which is 161 miles from the sea; Wildekamp (1996) says name refers to “partial interconnection of the cross-bars on the sides of the body” but provides no source for this explanation

Fundulus diaphanus diaphanus (Lesueur 1817)
transparent, referring to its semi-translucent (“diaphanous”) body (probably a male)

Fundulus diaphanus menona Jordan & Copeland 1877
named for Lake Menona, Wisconsin (USA), type locality (but occurs throughout Mississippi River and Great Lakes basins)

Fundulus grandis Baird & Girard 1853
large, probably referring to its “stout” body and/or length (described at 12.7 cm)

Fundulus grandissimus Hubbs 1936
very large, referring to larger size compared to the similar F. grandis

Fundulus herminiamatildarum García-Ramírez, Lozano-Vilano & De la Maza Benignos 2022
in honor of Herminia Ramírez and Matilde García, the senior author’s parents, “who were important pillars in the professional [sic] and personal growth of the author, and who have a great respect for nature” [originally spelled herminiamatildae, emended to herminiamatildarum since name honors more than one woman; first published online in 2021 but without ZooBank registration, so name dates to printed version, which appeared in 2022]
**Fundulus heteroclitus heteroclitus** (Linnaeus 1766)
heteros, different; clinus, leaning or inclining, i.e., deviating, abnormal or different, allusion not explained, perhaps referring to Linnaeus' uncertainty (“Genus nondun certam”) in placing it in the loach genus *Cobitis*, from which it clearly differs; Wildekamp (1996) states that name refers to “differences between the sexes,” but sexual dimorphism is not included in Linnaeus' brief description (based on notes from South Carolina naturalist Andrew Garden, who sent Linnaeus right half-skins of two specimens, pressed in a botanical press, varnished, and glued to a sheet of herbarium paper)

**Fundulus heteroclitus macrolepidotus** Walbaum 1792
macro-, large; lepidotus, scaled, referring to larger scales on head and preorbital region compared to nominate form

**Fundulus jenkinsi** (Evermann 1892)
in honor of Oliver Peebles Jenkins (1850–1935), physiology professor, Stanford University, for his work on fishes of the Sandwich (Hawaiian) Islands

**Fundulus julisia** Williams & Etnier 1982
derived from the Cherokee (Native American) words amjulisi, watercress, and atsat, fish, referring to its association with aquatic vegetation, typically watercress

**Fundulus majalis** (Walbaum 1792)
pertaining to May, based on “Mayfish,” local name recorded by Schöpf (1788), who collected specimens from New York City’s East River

**Fundulus persimilis** Miller 1955
per, through or by, referring to its “evolution through *F. similis* or the precursor of that species”

**Fundulus philpisteri** García-Ramírez, Contreras-Balderas & Lozano-Vilano 2007
in honor of fisheries biologist Edwin Philip (“Phil”) Pister (b. 1929), for his dedication to the study and teaching of ichthyology, and for promoting the conservation of the desert fishes and their ecosystems

**Fundulus pulvereus** (Evermann 1892)
powdery, referring to small mother-of-pearl spots on sides of males

**Fundulus rathbuni** Jordan & Meek 1889
in honor of Richard Rathbun (1852–1918), Chief of the Division of Scientific Inquiry, U.S. Fish Commission

**Fundulus saguanus** Rivas 1948
-anus, belonging to: Sagua La Grande, Las Villas Province, Cuba, type locality (also known from southern peninsular Florida and the Florida Keys)

**Fundulus seminolis** Girard 1859
-is, genitive singular of: allusion not explained, probably referring to the Seminole Indians, originally from Florida (USA), where this killifish is endemic

**Fundulus similis** (Baird & Girard 1853)
similar, allusion not explained, perhaps referring to similarity with *F. majalis*; Jordan & Evermann (1896) say name refers “sexes being nearly alike,” perhaps referring to “Transverse narrow black bands in both sexes” as noted in original description

**Fundulus stellifer** (Jordan 1877)
stell, star; fero, to bear, probably referring to sparkles on nuptial males and/or large pale yellow blotch on back in front of dorsal fin, “very distinct in life, so that the fish may be recognized in the water as far as it can be seen”

**Fundulus waccamensis** Hubbs & Raney 1946
-ensis, suffix denoting place: Lake Waccamaw, North Carolina, USA, where it is endemic

Subgenus *Plancterus* Garman 1895
wandering, allusion not explained, possibly referring to “convolutions of the intestine and the reduction of the pharyngeals [which] indicate habits [‘mud-eating’] differing from those of the majority of the genus”

**Fundulus kansae** Garman 1895
of Kansas, USA, type locality (but occurs elsewhere in central USA, including Wyoming, Nevada, Colorado, Iowa, Missouri, New Mexico, Oklahoma and Texas)

**Fundulus zebrinus** Jordan & Gilbert 1883
zebra-like, replacement name for *Hydrargyra zebra* Girard 1859, secondarily preoccupied by *Fundulus zebra* DeKay 1842 (=*F. heteroclitus*), originally referring to its "numerous transverse lateral bars"

Subgenus *Wileyichthys* Ghedotti & Davis 2013
in honor of Edward O. Wiley (b. 1944), University of Kansas (USA), for his many contributions to our understanding of fundulid fishes, North American biogeography, and to phylogenetic systematics; ichthus, fish
Fundulus parvipinnis parvipinnis Girard 1854
*parvus*, small; *pinnis*, fin, “All the fins are of small dimensions”

Fundulus parvipinnis brevis Osburn & Nichols 1916
short, referring to “noticeably shorter and deeper body” compared to nominate form

Fundulus lima Vaillant 1894
file, referring to scale ctenii, which form elongate spines in breeding males

Subgenus Zygonectes Agassiz 1854
zygos, yoke (i.e., in pairs; *nectes*, swimmer, allusion not explained; according to Jordan (1882), referring to “supposed habit of swimming at the surface of the water in pairs”

Fundulus blairae Wiley & Hall 1975
in honor of Blair Knies (no other information available), for her assistance in the field

Fundulus chrysotus (Günther 1866)
based on manuscript name coined by physician-naturalist John E. Holbrook (1796-1871); scholars have offered two etymologies: gilded, referring to gold flecks on sides, and *chrysos*, gold and *otos*, ear, referring to gold iridescence on opercle (neither character mentioned by Günther, who remarked “it is impossible to know whether the specimens described are identical with those for which Holbrook intended this name”)

Fundulus cingulatus Valenciennes 1846
banded, referring to vertical bars on sides of both sexes

Fundulus dispar (Agassiz 1854)
dissimilar, allusion not explained, perhaps referring to differences between the sexes (“Longitudinal lines of minute dots particularly distinct in the anterior part of the body, alternating backwards with continuous lines in the males, which are besides transversely barred, whilst the female has only continuous serrated lines upon the sides”)

Fundulus escambiae (Bollman 1887)
of the Escambia River, Alabama (USA), type locality; also occurs in Georgia and Florida

Fundulus euryzonus Suttkus & Cashner 1981
eury, broad; *zonus*, band, referring to wide purple-brown stripe on sides of both sexes

Fundulus lineolatus (Agassiz 1854)
lined, presumably referring to black stripes on sides of females (vertical bars on males)

Fundulus luciae (Baird 1855)
in honor of Baird’s daughter, Lucy Hunter Baird (1848-1913)

Fundulus notatus (Rafinesque 1820)
marked, referring to white spot (pineal eye) on top of head

Fundulus nottii (Agassiz 1854)
in honor of Josiah Clark Nott (1804-1873), surgeon-anthropologist from Mobile, Alabama (USA), who sent type to Agassiz (footnote: a slave owner, Nott claimed that “the negro achieves his greatest perfection, physical and moral, and also greatest longevity, in a state of slavery”)

Fundulus olivaceus (Storer 1845)
olive-colored, referring to coloration of upper body, “sprinkled with minute black dots”

Fundulus rubrifrons (Jordan 1880)
ruber, red; *frons*, forehead, “Jaws and space in front of eyes bright orange-red”

Fundulus sciadicus Cope 1865
shady or belonging to the shade, allusion not explained nor evident; perhaps referring to coloration (described as “olive slate” above, “brownish yellow” below) or to habitat (occurs in heavy vegetation, but this is not mentioned by Cope)

Fundulus xenicus (Jordan & Gilbert 1882)
strange, foreign or exotic, allusion not explained, perhaps referring to deep, diamond-shaped body, like that of Cyprinodon (Cyprinodontidae), unusual for Fundulus; Huber (2013) says name refers to its “rare or discontinuous occurrence,” but the species occurs along Gulf Coast from southern Florida to Corpus Christi, Texas, and was described as “locally very abundant” (as Adinia multifasciata) by Jordan and Evermann in 1896 [previously placed in its own genus, *Adinia*]

Leptolucania Myers 1924
leptos, slender, compared to the deeper-bodied Lucania

Leptolucania ommata (Jordan 1884)
eyed, referring to ocellus on mid-caudal peduncle of both sexes
**Lucania Girard 1859**
a Native American word chosen presumably because Girard liked the sound of it

**Lucania goodi Jordan 1880**
in honor of ichthyologist George Brown Goode (1851-1896), who collected type

**Lucania interioris Hubbs & Miller 1965**
interior, being an “isolated endemic species of an interior-drainage basin far inland in northeastern México”

**Lucania parva (Baird & Girard 1855)**
small, referring to its “diminutive size” (up to 6.2 cm TL)

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**Family FLUVIPHYLACIDAE** American Lampeyes

1 genus · 7 species

**Fluviphylax Whitley 1965**
*fluvius*, river; *phylax*, guard or guardian, replacement name for *Potamophylax* Myers & Carvalho 1955 (*potamos*, river), preoccupied in caddisflies, allusion not explained by the original authors, possibly referring to occurrence of *F. pygmaeus* in the middle Amazon basin and metaphorical all-seeing or guardian nature of its “enormous eyes”

**Fluviphylax gouldingi Bragança 2018**
in honor of conservation ecologist Michael Goulding (b. 1950), for his collection efforts in the Amazon, especially in the Rio Negro, and for his many ecological studies on neotropical fishes

**Fluviphylax obscurus Costa 1996**
dark, referring to how larger specimens preserved in alcohol seem to be darker than congeneres known at the time

**Fluviphylax palikur Costa & Le Bail 1999**
named for the Palikur Indians, who live in the coastal part of the lower Oiapoque drainage of northern Brazil, where this species occurs

**Fluviphylax pygmaeus (Myers & Carvalho 1955)**
dwarf, a “very tiny” species (up to 19.3 mm SL)

**Fluviphylax simplex Costa 1996**
simple, referring to open cephalic sensory canals of adults

**Fluviphylax wallacei Bragança 2018**
in honor of English naturalist Alfred Russel Wallace (1823-1913), for his collection effort in the Amazon, especially in the Rio Negro drainage (where this species occurs); unfortunately, when he was returning to Europe, an accidental fire resulted in the sinking of the ship and all specimens were lost (only some drawings of the fishes survived)

**Fluviphylax zonatus Costa 1996**
banded, referring to 6-12 dark bars on sides of males

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*Fluviphylax wallacei*, a) male, b) juvenile male. From: Bragança, P. H. N. 2018. *Fluviphylax gouldingi* and *F. wallacei*, two new miniature killifishes from the middle and upper Rio Negro drainage, Brazilian Amazon. *Spixiana* (München) v. 41 (no. 1): 133-146.