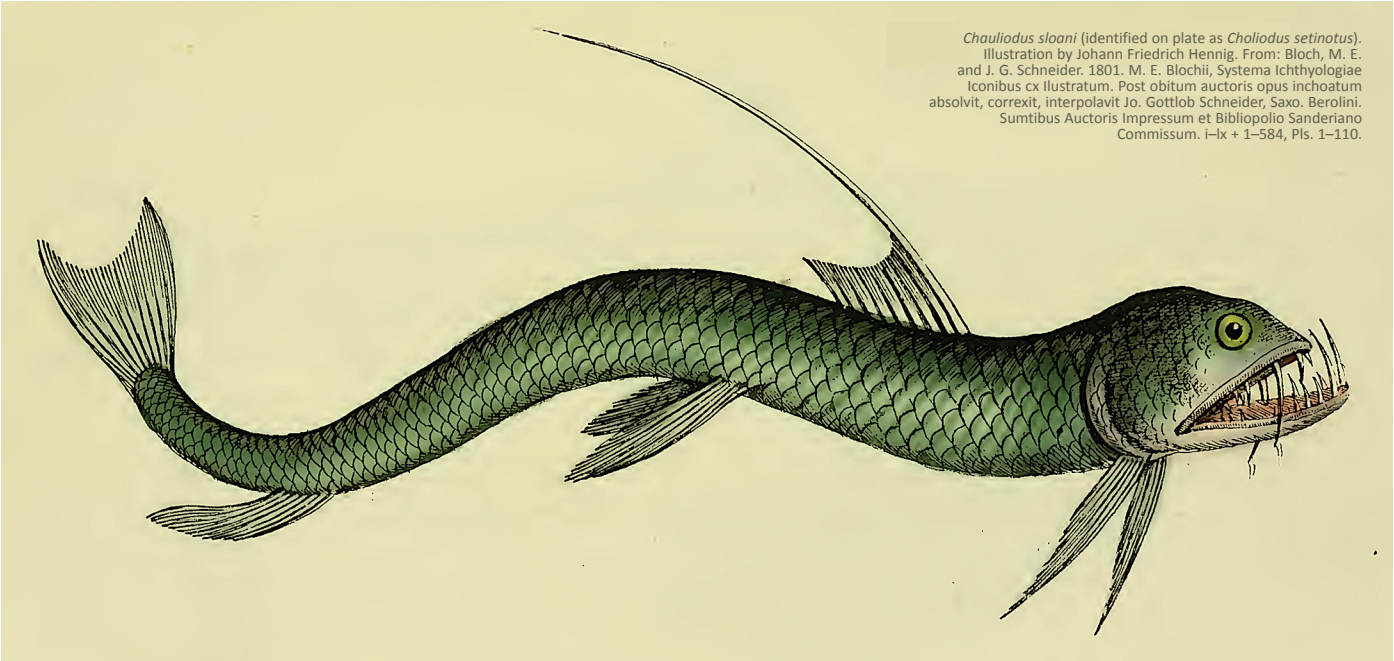
Order STOMIIFORMES

Dragonfishes

Family **STOMIIDAE**

Bleeker 1859



Chauliodus sloani (identified on plate as *Choliodus setinotus*). Illustration by Johann Friedrich Hennig. From: Bloch, M. E. and J. G. Schneider. 1801. M. E. Blochii, Systema Ichthyologiae Iconibus cx Ilustratum. Post obitum auctoris opus inchoatum absolvit, correxit, interpolavit Jo. Gottlob Schneider, Saxo. Berolini. Sumtibus Auctoris Impressum et Bibliopolio Sanderiano Commissum. i–lx + 1–584, Pls. 1–110.

Viperfishes

Subfamily CHAULIODONTINAE

Bonaparte 1845

Chauliodus

Bloch & Schneider 1801

chaúlios (χαύλιος), gaping (but here used in the sense of protruding); *odoús* (ὀδούς), tooth, referring to long, exserted teeth on both jaws of *C. sloani*

***Chauliodus barbatus* Garman 1899** Latin for bearded, referring to "more developed" barbel compared with *C. sloani*

***Chauliodus danae* Regan & Trewavas 1929** in honor of the Danish fishery research vessel *Dana*, which collected holotype

***Chauliodus dentatus* Garman 1899** Latin for toothed, referring to "stouter and more erect" maxillary teeth compared with *C. sloani*

***Chauliodus macouni* Bean 1890** in honor of Irish-born explorer-naturalist John C. Macoun (1831–1920), Geological Survey of Canada

***Chauliodus minimus* Parin & Novikova 1974** Latin for least, referring to its small size (up to 14.5 cm SL) compared with congeners

***Chauliodus pammelas* Alcock 1892** *pammélas* (παμμέλας), all black, referring to its "uniform jet-black" coloration

***Chauliodus schmidti* Ege 1948** patronym not identified, probably in honor of Danish biologist Johannes Schmidt (1877–1933), who led the *Dana* fishery research cruise during which holotype was collected

***Chauliodus sloani* Bloch & Schneider 1801** in honor of Hans Sloane (1660–1753), British physician and naturalist, whose 1725 *Voyage to Jamaica* is cited several times by Bloch and Schneider (and whose collection formed the foundation of the British Museum) [see essay below]

***Chauliodus vasnetzovi* Novikova 1972** in honor of the late Vladimir Viktorovich Vasnetsov (1889–1953), "eminent" Russian ichthyologist (translation)

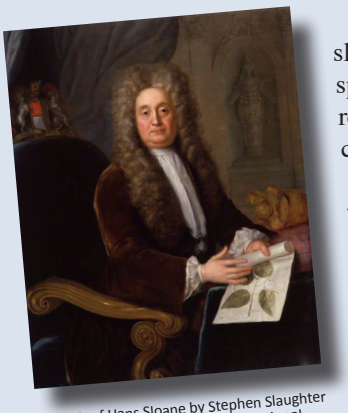
Chocolate milk, slavery, and *Chauliodus sloani*

Do you drink chocolate milk? *Chauliodus sloani* is named for the man said to be its inventor, Hans Sloane.

Sloane (1660–1753) was an Irish physician-naturalist who sailed to Jamaica, then an English colony, in 1687. There and throughout the Caribbean, he collected or purchased more than 71,000 natural history specimens and artefacts. His *Natural History of Jamaica* (1725) is cited by many early ichthyologists, including Bloch & Schneider.

While in Jamaica, Sloane "invented" chocolate milk or, more likely, learned the practice of adding milk to "drinking" (melted) chocolate from local Jamaicans. He considered it an easier way to consume cocoa, *continued on next page*

then a common medicine. Upon his return to London, he sold his chocolate milk recipe to an apothecary, who in turn sold it to a little outfit called Cadbury, now the second largest confectionery brand in the world (after Mars).



Portrait of Hans Sloane by Stephen Slaughter (1697–1765). Oil on canvas. National Portrait Gallery (London).

Today, historians are confronting Sloane's role in what's been termed the "scientific-slavery-industrial complex," that is, the role slaves played in collecting natural history specimens from far-flung colonies, and how European naturalists, including Linnaeus, relied on slave ships for the transport of these specimens for their museums and private collections.

In Jamaica, Sloane worked as a doctor on sugar plantations. It was enslaved men, women and children, mostly from present-day Ghana and Cote d'Ivoire, who made these plantations profitable. Sloane documented the punishments these slaves endured without a trace of sympathy or regret. For rebellion, slaves were usually punished "by nailing them down to the ground ... and then applying the fire by degrees from the feet and hands, burning them gradually up to the head, whereby their pains are extravagant." For lesser crimes, castration or mutilation ("chopping off half the foot") was the norm. And as for negligence, slaves "are usually whipt ... after they are whipt till they are raw, some put on their skins pepper and salt to make them smart; at other times their masters will drip melted wax on their skins, and use very exquisite torments."

Female slaves collected plants for Sloane. Some "cunning" (Sloan's word) slave women used these plants to induce abortions in order to save their unborn children lives of bondage.

Sloane eventually married into the business and became a wealthy slave-owner himself. Using that wealth, he bought collections from other naturalists, and eventually amassed the largest collection of natural history specimens in the world, including human body parts (e.g., the "foetus of a negro from Virginia"). His collection formed the foundation of the British Museum. On the strength of his collection he became President of the Royal Society, the UK's national academy of sciences, in 1727, taking over from no less a scientist than Isaac Newton.

In 2020, many expressed their outrage when the British Museum moved a bust of Hans Sloane off a literal pedestal and into a new display that explained his links to slavery. They charged the museum with "rewriting" and "erasing" history. But as British historian and broadcaster David Olusoga contends, it's not Sloane who's been erased from history. It's the slaves, and the role slavery played in shaping the modern world, including modern science.

"Taking Sloane off his pedestal and setting him within historical reality is not an act of erasure," Olusoga said, "it is a small act of recognition."

https://www.theguardian.com/commentisfree/2020/aug/30/it-is-not-hans-sloane-who-has-been-erased-from-history-but-his-slaves

Barbled Dragonfishes
Subfamily STOMIINAE[1]
Bleeker 1859

Aristostomias

Zugmayer 1913
etymology not explained, perhaps *áristos* (ἄριστος), best or noblest, a fitting adjective for a genus whose type species, *A. grimaldii*, is named after royalty; *Stomias*, type genus of family

***Aristostomias grimaldii* Zugmayer 1913** in honor of Albert Honoré Charles Grimaldi (1848–1922), Albert I, Prince of Monaco, who founded his country's Institut Océanographique, which published this fish's description

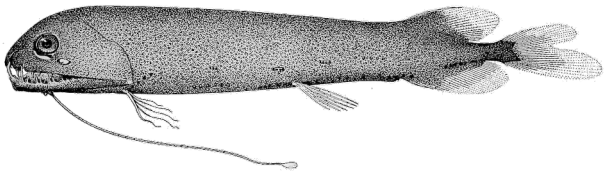
***Aristostomias lunifer* Regan & Trewavas 1930** *luna* (L.), moon; *-ifer*, from *fera* (L.), to have or bear, presumably referring to "semicircular strip of luminous tissue" behind eye

***Aristostomias polydactylus* Regan & Trewavas 1930** *polý* (πολύ), many; *dáktylos* (δάκτυλος), finger, referring to 14–17 pectoral-fin rays, the most in the genus

***Aristostomias scintillans* (Gilbert 1915)** Latin for shiny or bright, presumably referring to its "very numerous minute, luminous organs"

***Aristostomias tittmanni* Welsh 1923** in honor of Otto Hilgard Tittmann (1850–1938), former Superintendent of the United States Coast and Geodetic Survey, who authorized the use of the survey steamer *Bache* for the South Atlantic expedition, during which holotype was collected (Tittmann was also co-founder of the National Geographic Society)

***Aristostomias xenostoma* Regan & Trewavas 1930** *xénos* (ξένος), strange or foreign (i.e., different); *stóma* (στόμα), mouth, allusion not explained, perhaps referring to the unique jaw structure diagnostic of the subfamily (floor of lower jaw lacks membranes, which allows jaws to swing widely while feeding)



Aristostomias scintillans, holotype. From: Gilbert, C. H. 1915. Fishes collected by the United States Fisheries steamer "Albatross" in southern California in 1904. Proceedings of the United States National Museum 48 (2075): 305–380, Pls. 14–22.

[1] Recognition of two subfamilies instead of six per DeArmon, E. S., W. L. Smith and M. P. Davis. 2026. Dragons of the deep (Stomiiformes: Stomiidae): evolutionary relationships and taxonomy of the barbeled dragonfishes (Stomiinae) and viperfishes (Chauliodontinae). Zootaxa 5759 (1): 1–25. • Family includes Phosichthyidae Weitzman 1974 "Lightfishes" (*Ichthyococcus*, *Phosichthys*, *Pollichthys*, *Polymetme*, *Vinciguerria*, *Woodsia*, *Yarrella*) and *Triplophos* (previously in Gonostomatidae) per Smith, W. L., M. G. Girard, H. J. Walker, Jr. and M. P. Davis. 2024. The phylogeny of bristlemouths, lightfishes, and portholefishes with a revised family-level classification of the dragonfishes (Teleostei: Stomiiformes). Professional Paper NMFS (National Marine Fisheries Service) No. 24: 167–184. • Chang et al. (2025) propose a different classification, retaining Phosichthyidae for two genera (*Phosichthys*, *Woodsia*), and erecting three new families: Ichthyococcidae (*Ichthyococcus*), Vinciguerriidae (*Pollichthys*, *Vinciguerria*), and Yarrellidae (*Polymetme*, *Yarrella*). However, the new families were proposed in an electronic publication without ZooBank registration and thus are unavailable per ICZN 8.5.3. See: Chang, S., Z. Heiple, D. Hays, F. Melendez-Vazquez, C. Lee, B. W. Frable, J. Pogonoski, C. M. Martinez, R. Betancur-R and D. Arcila. 2025. Genome-wide phylogeny reshapes our understanding of the evolution of deep-sea dragonfishes, bristlemouths, viperfishes, and allies (Stomiiformes). BMC Ecology and Evolution 25:111: 1–17.

Astronesthes

Richardson 1845

astro-, from *astḗr* (ἀστήρ), star; *esthḗs* (ἐσθής), dress, clothing or raiment, i.e., clothed in stars, allusion not explained, presumably referring to skin of *A. nigra* "thickly studded" with white "microscopical papillæ" and/or ~22 luminous spots, "conspicuous to the naked eye, and very ornamental," between chin and ventral, which, on black skin, can be said to appear like stars in a black sky [historically treated as a masculine name based on incorrect translation of *esthes* as "to eat"; gender is feminine and spellings of adjectival names have been adjusted]

Subgenus *Astronesthes*

Astronesthes atlantica **Parin & Borodulina 1996** *-ica* (L.), belonging to: Atlantic Ocean, where it is endemic to equatorial warm waters

Astronesthes barbata **Kner 1860** Latin for bearded, referring to longer barbel compared with *A. nigra*, its length nearly equal to half of its TL

Astronesthes bilobata **Parin & Borodulina 1996** *bi-*, from *bis* (L.), twice; *lobata* (L.), lobed, referring to two flattened lobes at distal part of barbel

Astronesthes boulengeri **Gilchrist 1902** in honor of Belgian-born British ichthyologist-herpetologist George A. Boulenger (1858–1937), British Museum (Natural History), "for his ready assistance and advice"

Astronesthes caulophorus **Regan & Trewavas 1929** etymology not explained, presumably *caulis* (L.), stalk or stem, and *phorus*, from *phoreús* (φορεύς), bearer or carrier, possibly referring to "stout" barbel, as long as head

Astronesthes cyanea **(Brauer 1902)** Latin for dark blue, presumably referring to its bluish-black coloration (with a slightly metallic sheen)

Astronesthes decorata **Parin & Borodulina 2002** Latin for adorned, referring to greater development of spots of luminous tissue on body compared to other closely related species

Astronesthes dupliglandis **Parin & Borodulina 1997** *duplex* (L.), double or two-fold; *glandis* (L.), acorn (but here meaning a small gland), referring to spot of luminous tissue on gill cover, formed by two vertical and closely attached glands

Astronesthes exsul **Parin & Borodulina 2002** Latin for wanderer or exile, the only species of the *A. nigra* species group that does not occur in the Atlantic (it occurs in the Indian Ocean)

Astronesthes formosana **Liao, Chen & Shao 2006** *-ana* (L.), belonging to: Formosa, or Taiwan, referring to its restricted distribution off the coast of that island

Astronesthes galapagensis **Parin, Borodulina & Hulley 1999** *-ensis*, Latin suffix denoting place: referring to numerous collection records east and west of the Galapagos Islands

Astronesthes gemmifer **Goode & Bean 1896** Latin for producing gems, referring to numerous "gem-like dots" on lower part of body

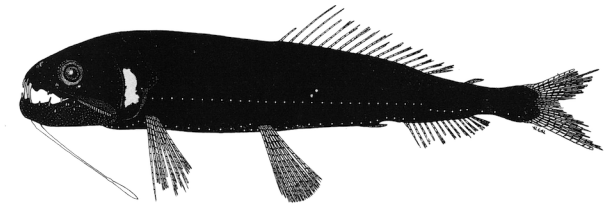
Astronesthes gibbsi **Borodulina 1992** in honor of American ichthyologist Robert H. Gibbs, Jr. (1929–1988), for "outstanding" (translation) contributions to our knowledge of stomiid fishes, and for being the first to recognize this species as undescribed

Astronesthes gudrunae **Parin & Borodulina 2002** in honor of Gudrun Schulze, a technician of the fish collection of the Institut für Seefischerei (Hamburg), in "sincere gratitude for all her help" in the authors' study (translation)

Astronesthes haplophos **Parin & Borodulina 2002** *haplós* (ἁπλός), single or simple; *phṓs* (φῶς), light, referring to weak development of aggregations of luminous tissue

Astronesthes illuminata **Parin, Borodulina & Hulley 1999** Latin for brightened or adorned, possessing more luminous patches than other species in the *A. boulengeri* species group

Astronesthes indica **Brauer 1902** *-ica* (L.), belonging to: western Indian Ocean, type locality



Astronesthes lamellosa, holotype, 76.4 mm SL. Illustration by Howard E. Hamman. From: Goodyear, R. H. and R. H. Gibbs, Jr. 1970. Ergebnisse der Forschungsreisen des FFS `Walther Herwig' nach Südamerika. X. Systematics and zoogeography of stomiatoid fishes of the *Astronesthes cyaneus* species group (family Astronesthidae), with descriptions of three new species. Archiv für Fischereiwissenschaft 20 (2/3): 107–131.

Astronesthes indopacifica **Parin & Borodulina 1997** *-ica* (L.), belonging to: warm-water regions of Indian and Pacific oceans, where it occurs

Astronesthes karsteni **Parin & Borodulina 2002** in honor of Karsten E. Hartel (b. 1944), curator of the fish collection at Harvard's Museum of Comparative Zoology, which housed many specimens used in the authors' study

Astronesthes kiyofujii **Nakayama, Ohashi & Tanaka 2021** in honor of fisheries scientist Hidetada Kiyofuji, who encouraged and supported the authors' study as group leader of the Skipjack and Albacore Group, Tuna and Skipjack Resources Division, National Research Institute of Far Seas Fisheries (Shizuoka, Japan)

Astronesthes kreffti **Gibbs & McKinney 1988** in honor of German ichthyologist Gerhard Krefft (1912–1993), Institut für Seefischerei (Hamburg), who enabled Gibbs to participate in the cruise whereupon this species was first recognized

Astronesthes lamellosa **Goodyear & Gibbs 1970** *-osa* (L.), suffix indicating abundance: *lamella* (L.), thin, plate-like structure, referring to numerous gill lamellae

Astronesthes lampara **Parin & Borodulina 1998** *Lampara*, nickname of the ichthyological laboratory aboard the 4th (1968) cruise of the research vessel *Akademik Kurchatov*, during which holotype was collected; name refers to the lampara seine, a net used to catch Peruvian anchovies

Astronesthes leucopogon **Regan & Trewavas 1929** *leuco-*, from *leukós* (λευκός), white; *pṓgōn* (πώγων), beard, referring to white barbel

Astronesthes lucibucca **Parin & Borodulina 1996** *luci-*, from *lucidus* (L.), bright or shining; *bucca* (L.), cheek, referring to luminous patches in cheek region

Astronesthes luetkeni **Regan & Trewavas 1929** in honor of Danish zoologist Christian Frederik Lütken (1827–1901), who reported this species as distinct from *A. richardsoni* in 1892 but did not name it

Astronesthes lupina **Whitley 1941** presumably a diminutive of *lupus* (L.), wolf, described from a larval specimen that Whitley called "Little Wolf")

Astronesthes macropogon **Goodyear & Gibbs 1970** *macro-*, from *makrós* (μακρός), long or large; *pṓgōn* (πώγων), beard, referring to longer barbel compared with the other Atlantic species, *A. micropogon*

Astronesthes micropogon **Goodyear & Gibbs 1970** *micro-*, from *mikrós* (μικρός), small; *pṓgōn* (πώγων), beard, referring to shorter barbel compared with the other Atlantic species, *A. macropogon*

Astronesthes neopogon **Regan & Trewavas 1929** *néos* (νέος), new; *pṓgōn* (πώγων), beard, allusion not explained, perhaps referring in some way to its barbel, described as "thick, laterally compressed, white, without any slender proximal part"

Astronesthes nigra **Richardson 1845** Latin for black or dark, referring to "pitch black" color of head and body [often misspelled *niger*]

Astronesthes nigroides **Gibbs & Aron 1960** *-oides*, Neo-Latin from *eī́dos* (εἶδος), form or shape: *A. nigra*, which it resembles in structure of barbel

Astronesthes oligoa **Parin & Borodulina 2002** *olígos* (ὀλίγος), few or

scanty; *oa*, abbreviation (OA) used for lateral photophores, referring to fewer number of OA photophores in lateral row compared with *A. nigra*

Astronesthes psychrolutes **(Gibbs & Weitzman 1965)** *psychrós* (ψυχρός), cold; *lutes*, from *loúo* (λούω), to wash or bathe oneself, i.e., a cold bather, named for its "midwater" (up to 1500 m) habitat, presumably referring to where the temperature can drop to 5°C

Astronesthes quasiindica **Parin & Borodulina 1996** *quasi* (L.), appearing as if, referring to close similarity to *A. indica*

Astronesthes richardsoni **(Poey 1852)** in honor of Scottish surgeon-naturalist John Richardson (1787-1865), who proposed the genus in 1845 [placed in *Astronesthes* in text, but name, as *Chauliodus richardsoni*, dates to a plate published 5–6 months earlier]

Astronesthes similus **Parr 1927** probably a variant or misspelling of *similis* (L.), like or resembling, described as "very closely related" to *A. lucifera* [since etymology is unclear, name is treated as an indeclinable noun]

Astronesthes spatulifera **Gibbs & McKinney 1988** *spatula* (L.), paddle, spoon or broad blade used for stirring, from *spáthē* (σπᾰθη); *-fera* (L.), having or bearing, referring to flat tip of barbel

Astronesthes splendida **Brauer 1902** Latin for bright or shining, allusion not explained, presumably referring to luminescent barbel and/or luminescent organs on head and body

Astronesthes tanibe **Parin & Borodulina 2001** named for Tat'yana Nikolaevna Belyanina (fish named formed by the first two letters of each of her names), P. P. Shirshov Institute of Oceanology (Moscow), a "well-known specialist" (translation) in oceanic fishes

Astronesthes tatyanae **Parin & Borodulina 1998** in honor of Tatyana Borisovna Agafonova, All-Russian Research Institute of Fisheries and Oceanography (VNIRO), who collected holotype during 1989 cruise of the Fishery Research Vessel *Vozrozhdenie*

Astronesthes tchuvasovi **Parin & Borodulina 1996** in honor of Vladimir Mikhailovich Chuvasov, lead technician of the Laboratory of Oceanic Fauna, P. P. Shirshov Institute of Oceanology (Moscow), and the authors' companion on many research cruises

Astronesthes trifibulata **Gibbs, Amaoka & Haruta 1984** *tri-* (L.), three; *fibulata* (L.), etymology not explained, presumably brooch-like or fitted with clasps, "alluding to the three filaments characteristically present on the barbel bulb"

Astronesthes zetgibbsi **Parin & Borodulina 1997** *zeta*, the letter Z; *gibbsi*, in honor of American ichthyologist Robert H. Gibbs, Jr. (1929–1988), "one of the most authoritative investigators" (translation) of the family and other stomiiform fishes, who called this taxon "species Z" in his unpublished materials

Astronesthes zharovi **Parin & Borodulina 1998** in honor of ichthyologist Viktor L. Zharov (1932–1998), one of the first Russian researchers of the epipelagic fishes of the World Ocean and a specialist in scombroid fishes

Subgenus ***Stomianodon***

Bleeker 1849

etymology not explained, possibly *stóma* (στόμα), mouth; [*ur*]*ano-*, from *ouranískos* (οὐρανίσκος), roof of mouth; *odon*, from *odoús* (ὀδούς), tooth, referring to small teeth on palatines of *A. chrysophekadion*

Astronesthes chrysophekadion **(Bleeker 1849)** *chrysós* (χρυσός), gold or golden; *phekadion*, presumably from *phakoeidḗs* (φακοειδής), lentiform (shaped like a lentil), allusion not explained, probably referring to four series of golden spots on belly

Astronesthes fedorovi **Parin & Borodulina 1994** in honor of ichthyologist Vladimir Vladimirovich Fedorov (1939–2011), Russian Academy of Sciences, who first reported this species as new in 1968

Astronesthes ijimai **Tanaka 1908** in honor of zoologist Isao Ijima (also spelled Iijima, 1861–1921), Science College, Imperial University of Tokyo

Astronesthes lucifera **Gilbert 1905** *lux* (L.), light; *-fera* (L.), having or bearing, presumably referring to numerous photophores on body [often spelled *lucifer*; name is an adjective and not a reference to the Prince of Darkness]

Astronesthes martensii **Klunzinger 1871** patronym not identified but probably in honor of German zoologist Karl Eduard von Martens (1831–1904)

Bathophilus

Giglioli 1882

bathýs (βαθύς), deep, and *phílos* (φίλος), friend or fond of, referring to deep-sea habitat of *B. nigerrimus*

Subgenus ***Bathophilus***

Bathophilus abarbatus **Barnett & Gibbs 1968** *á-* (ἄ), privative, i.e., not; *barbatus* (L.), bearded, only known member of genus without a barbel

Bathophilus altipinnis **Beebe 1933** *altus* (L.), high or deep; *pinnis*, Neo-Latin adjective of *pinna* (L.), fin, i.e., finned, presumably referring to pelvic fins inserted "extremely high" on sides, "about equidistant from dorsal and ventral profiles"

Bathophilus ater **(Brauer 1902)** Latin for black, referring to body colorations (fins and barbel are white)

Bathophilus cwyanorum **Barnett & Gibbs 1968** *-orum* (L.), commemorative suffix, plural: "the surnames of two very capable colleagues who were largely responsible for the success of the midwater trawling program" that collected holotype in the Indian Ocean, Edward Cwynar (b. 1942) of Hawai'i and Shigeru Yano, a long-line fisherman (name includes both Cwynar and Yano)

Bathophilus digitatus **(Welsh 1923)** Latin for having fingers or toes, referring to its having more pectoral-fin rays compared with the similar *B. ater*

Bathophilus filifer **(Garman 1899)** *filum* (L.), thread; *-ifer*, from *fero* (L.), to have or bear, presumably referring to single "slender, filamentary" ray of pectoral fin

Bathophilus flemingi **Aron & McCrery 1958** in honor of Canadian-born oceanographer Richard H. Fleming (1909–1989), University of Washington (USA), for his contributions to "biological oceanography"

Bathophilus indicus **(Brauer 1902)** *-icus* (L.), belonging to: Indian Ocean, where it occurs

Bathophilus irregularis **Norman 1930** Latin for irregular, probably referring to the "peculiar" arrangement of its lateral photophores

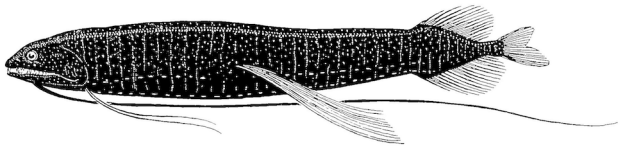
Bathophilus kingi **Barnett & Gibbs 1968** in honor of Joseph E. King (1914–?), U.S. Fish and Wildlife Service, whose studies of central Pacific midwater fishes resulted in the first known specimens of this species

Bathophilus longipinnis **(Pappenheim 1914)** *longus* (L.), long; *pinnis*, scientific Neo-Latin adjective of *pinna* (L.), fin, i.e., finned, allusion not explained, perhaps referring to its extended pelvic-fin rays, which are said to extend past beginning of anal fin (but subsequent accounts do not show the pelvics reaching this far), or to its having longer fins (which ones not specified) compared with *Melanostomias melanops*, its presumed congener at the time

Bathophilus metallicus **(Welsh 1923)** Latin for metallic, referring to its color in alcohol, "head and body dark greenish bronze with bright metallic reflections"

Bathophilus nigerrimus **Giglioli 1882** superlative of *niger* (L.), black or dark, i.e., very black, a "singular fish of deep black colour with small eyes, a naked skin, and a most abyssal physiognomy"

Bathophilus novicki **Barnett & Gibbs 1968** in honor of American physician and biologist Alvin Novick (1925–2005), "who taught the senior author how to see in the dark" (Barnett attended Yale University where Novick was a specialist in the sonar systems of bats)



Bathophilus pawneei. Illustration by Wilfrid Swancourt Bronson. From: Parr, A. E. 1927. The Stomiatoid fishes of the suborder Gymnophotodermi (Astronesthidae, Melanostomiatidae, Idiacanthidae) with a complete review of the species. Scientific results of the third oceanographic expedition of the "Pawnee" 1927. Bulletin of the Bingham Oceanographic Collection Yale University 3 (2): 1–123.

Bathophilus pawneei **Parr 1927** named for *Pawnee II*, yacht (specially designed for deep-sea trawling and research) from which holotype was collected, owned by businessman Harry Payne Bingham (1887–1955), who sponsored expedition and founded the Bingham Oceanographic Collection at Yale University

Bathophilus proximus **Regan & Trewavas 1930** Latin for nearest or next, presumably referring to its similarity to *B. nigerrimus*

Bathophilus schizochirus **Regan & Trewavas 1930** *schizo-*, from *schízō* (σχίζω), to part or divide; *chirus*, from *cheirós* (χειρός), genitive of *cheír* (χείρ), hand (homologous to the pectoral fin), referring to its pectoral-fin rays, which comprise two "well-separated" groups

Bathophilus vaillanti **(Zugmayer 1911)** in honor of French zoologist Léon Vaillant (1834–1914), Muséum national d'Histoire naturelle (Paris)

Subgenus ***Notopodichthys***
Regan & Trewavas 1930
nŏtos (νῶτος), back, and *podós* (ποδός), genitive of πούς, foot (homologous to the pelvic fin), referring to pelvic fins inserted much closer to dorsal than ventral profile; *ichthýs* (ἰχθύς), fish

Bathophilus brevis **Regan & Trewavas 1930** Latin for short, referring to much shorter, deeper body compared with congeners

Borostomias

Regan 1908
borós (βορός), gluttonous, referring to very wide mouth of *B. braueri* (=*elucens*); *Stomias*, type genus of family

Borostomias abyssorum **(Köhler 1896)** *-orum* (L. suffix), belonging to: *ábyssos* (ἄβυσσος), the deep seas, collected at a depth of 800 m

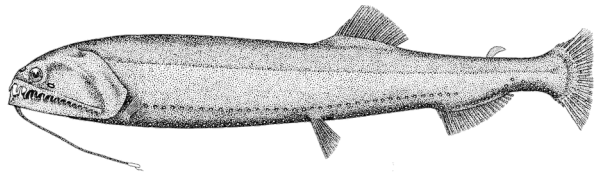
Borostomias antarcticus **(Lönnberg 1905)** *-icus* (L.), belonging to: the *Antarctic*, ship that collected type (and was destroyed in 1903 when it was crushed in the ice)

Borostomias elucens **(Brauer 1906)** Latin for shining out, presumably referring to photophores on body and tail

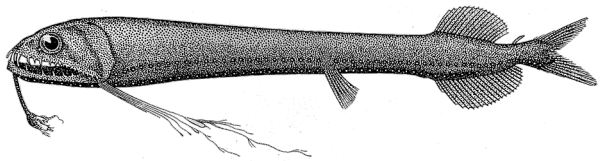
Borostomias mononema **(Regan & Trewavas 1929)** *mono-*, from *mónos* (μόνος), one or single; *nḗma* (νῆμα), thread or yarn, referring to one filament (vs. two) near end of barbel

Borostomias pacificus **(Imai 1941)** *-icus* (L.), belonging to: Pacific Ocean, the first Pacific representative of a genus (originally described in *Diploly-chnus*, now a synonym) known only from the Atlantic

Borostomias panamensis **Regan & Trewavas 1929** *-ensis*, Latin suffix denoting place: Gulf of Panama, type locality



Borostomias panamensis, holotype, 208 mm SL. Illustration by William P. C. Tenison. From: Regan, C. T. and E. Trewavas. 1929. The fishes of the families Astronesthidae and Chauliodontidae. Danish Dana Expedition 1920-22 in the North Atlantic and the Gulf of Panama, Oceanographical Reports 2 (5): 1–39, Pls. 1–7.



Chirostomias pliopterus. From: Regan, C. T. and E. Trewavas. 1930. The fishes of the families Stomiatidae and Malacosteidae. Danish Dana Expedition 1920-22 in the North Atlantic and the Gulf of Panama, Oceanographical Reports 2 (6): 1–143, Pls. 1–14.

Chirostomias

Regan & Trewavas 1930
chiro, from *cheirós* (χειρός), genitive of *cheír* (χείρ), hand (homologous to the pectoral fin), presumably referring to its pectoral fins, "far forward and close together; sixth ray longest, sometimes more than twice as long as head, with a club-shaped luminous swelling"; *Stomias*, type genus of family

Chirostomias pliopterus **Regan & Trewavas 1930** *plio*, from *pleíōn* (πλείων), more; *pterus*, from *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, possibly referring to presence of small adipose fin, unique in family

Echiostoma

Lowe 1843
échis (ἔχις), viper or adder; *stóma* (στόμα), mouth, presumably referring to snake-like appearance of wide mouth cleft and/or fang-like teeth

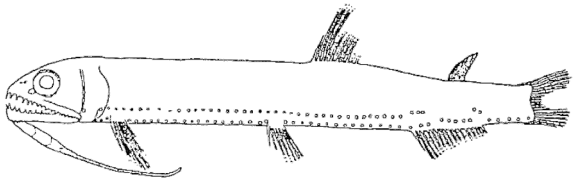
Echiostoma barbatum **Lowe 1843** Latin for bearded, referring to its chin barbel, "thick or broad and subcartilaginous, equalling in length the depth of the head"

Possibly first-published image of *Echiostoma barbatum*. Illustration by Robert Mintern. From: Günther, A. 1887. Report on the deep-sea fishes collected by H. M. S. Challenger during the years 1873-76. Report on the Scientific Results of the Voyage of H. M. S. Challenger 22 (57): i-lxv + 1–268, Pls. 1–66.

Eupogonesthes

Parin & Borodulina 1993
eŭ- (εὖ), well or very, and *pōgōn* (πώγων), beard, referring to long barbel with a markedly elongated glandular bulb at anterior portion of shaft; *esthes*, suffix referring to *Astronesthes*

Eupogonesthes xenicus **Parin & Borodulina 1993** *xenikós* (ξενικός), strange or foreign (i.e., different), referring to unique structure of barbel (see genus) and intermediate position of genus between *Borostomias* and *Astronesthes*



Eupogonesthes xenicus, holotype, 133.5 mm SL. From: Parin, N. V. and O. D. Borodulina. 1993. A new mesobenthic fish, *Eupogonesthes xenicus* (Astronesthidae), from the eastern Indian Ocean. Voprosy Ikhtiologii 33 (3): 442–445. English translation in Journal of Ichthyology 33 (8) [1994] :111–116.

Eustomias

Vaillant 1884
eŭ- (εὖ), an intensive prefix, e.g., good, well or very, said by Vaillant (1888)[1] to mean "tout à fait," a French term that means absolutely, exactly or completely; *stomías* (στομίας), a hard-mouthed horse but often used for any large-mouthed animal, probably referring to jaws of *E. obscurus* "strongly armed with teeth" (translation) and/or its affinity to *Stomias*, type genus of family

Subgenus ***Eustomias***

Eustomias obscurus **Vaillant 1884** Latin for dark, referring to its "deep velvety black" (translation) coloration per Vaillant (1888)[2]

Subgenus ***Biradiostomias***
Gomon & Gibbs 1985
bi-, from *bis* (L.), twice, and *radius* (L.) ray, referring to two separate pectoral-fin rays, characteristic of the subgenus; *Stomias*, nominate genus

Eustomias brevibarbatus **Parr 1927** *brevis* (L.), short; *barbatus* (L.), bearded, referring to its short barbel, 33% longer than head or less

Eustomias contiguus **Gomon & Gibbs 1985** Latin for adjacent or bordering, referring to two juxtaposed bulbs near end of barbel

Eustomias digitatus **Gomon & Gibbs 1985** Latin for having fingers or toes, referring to long projections from barbel bulb

Eustomias dispar **Gomon & Gibbs 1985** Latin for unlike or dissimilar, referring to contrasting shapes of terminal barbel bulbs

Eustomias dubius **Parr 1927** Latin for doubtful or uncertain, allusion not explained (described from one specimen with lower jaw "torn away")

Eustomias globulifer **Regan & Trewavas 1930** *globus* (L.), ball or sphere; *-ifer*, from *fero* (L.), to have or bear, presumably referring to "small oval bulb" on barbel

Eustomias hulleyi **Gomon & Gibbs 1985** in honor of colleague and shipmate Percy Alexander Hulley (b. 1941), Curator of Fishes, Iziko South African Museum, "who so appreciated the shapes and colors of *Eustomias* [barbel] bulbs"

Eustomias hypopsilus **Gomon & Gibbs 1985** *hypó* (ὑπό), less than, under or beneath; *psilós* (ψιλός), bare, uncovered or smooth, referring to absence, or virtual absence, of filaments on barbel bulbs

Eustomias ignotus **Gomon & Gibbs 1985** Latin for unknown, referring to its uncertain taxonomic status (with growth, elongate barbel bulb of *E. leptobolus* could divide in two, making the two species difficult to distinguish)

Eustomias ioani **Parin & Pokhil'skaya 1974** in honor of IOAN, acronym for Institut Okeanologii Akademii Nauk (Institute of Oceanology, Academy of Sciences of the USSR), which published the description and where the authors worked

Eustomias leptobolus **Regan & Trewavas 1930** *leptós* (λεπτός), thin or slender; *bŏlos* (βῶλος), lump or morsel, referring to elongate barbel bulb

Eustomias macrophthalmus **Parr 1927** big-eyed, from *makrós* (μακρός), long or large, and *ophthalmós* (ὀφθαλμός), eye, referring to its "very large" eyes, diameter ~¼ length of head

Eustomias micropterygius **Parr 1927** *micro-*, from *mikrós* (μικρός), small; *pterygius*, from *pterygion*, diminutive of *ptéryx* (πτέρυξ), wing or fin, referring to "very small" paired fins, the ventrals less than half length of head

Eustomias metamelas **Gomon & Gibbs 1985** *metá* (μετά), between; *mélas* (μέλας), black, referring to darkly pigmented axis between barbel bulbs

Eustomias polyaster **Parr 1927** *polý* (πολύ), many; *astḗr* (ἀστήρ), star, presumably referring to three or more conspicuous luminous bodies (bulbs) on barbel

Eustomias precarius **Gomon & Gibbs 1985** Latin for uncertain, referring to the "uncertainty involved in basing a new species on a single specimen" (*E. hulleyi*, *pyrifer* and *xenobolus* resemble this species in one way or another)

Eustomias pyrifer **Regan & Trewavas 1930** *pyrum* (Medieval Latin), pear; *-ifer*, from *fera* (L.), to have or bear, referring to pear-shaped barbel bulb

Eustomias quadrifilis **Gomon & Gibbs 1985** *quadri-*, from *quattuor* (L.), four; *filis* (scientific Neo-Latin), thread-like or filiform, referring to two pairs of filaments at end of barbel

Eustomias schiffi **Beebe 1932** in memory of American banker Mortimer L. Schiff (1877–1931), "whose interest in the work of this expedition [to Bermuda] was very deep and sincere"

Eustomias securicula **Prokofiev & Orlov 2022** diminutive of *securis* (L.), hatchet, i.e., a small hatchet, referring to characteristic shape of barbel bulb, narrowed ventrally, with a sharp lower edge

Eustomias variabilis **Regan & Trewavas 1930** Latin for variable, referring to distal bulb of barbel, which is either elongate, ovate or pear-shaped

Eustomias xenobolus **Regan & Trewavas 1930** *xénos* (ξένος), strange or foreign (i.e., different); *bŏlos* (βῶλος), lump or morsel, referring to barbel bulb divided into a proximal slender half and a broadly rounded distal half

Subgenus ***Dinematochirus***
Regan & Trewavas 1930
di-, from *dýo* (δύο), two; *nḗmatos* (νήματος), threaded; *chirus*, from *cheirós* (χειρός), genitive of *cheír* (χείρ), hand (homologous to the pectoral fin), referring to two pectoral rays on most species (authors did not mention that these rays are closely bound together in a black membrane[3])

Eustomias achirus **Parin & Pokhil'skaya 1974** *á-* (ἄ), privative, i.e., without; *chirus*, from *cheirós* (χειρός), genitive of *cheír* (χείρ), hand (homologous to the pectoral fin), referring to absence of pectoral-fin rays

Eustomias aequatorialis **Clarke 1998** Neo-Latin for equatorial, referring to its occurrence in the eastern equatorial Atlantic

Eustomias albibulbus **Clarke 2001** *albus* (L.), white; *bulbus*, from *bolbós* (βολβός), bulb, referring to completely unpigmented barbel bulb

Eustomias bigelowi **Welsh 1923** in honor of marine biologist Henry B. Bigelow (1879–1967), Museum of Comparative Zoology, Harvard University

Eustomias binghami **Parr 1927** in honor of American businessman and philanthropist Harry Payne Bingham (1887–1955), who sponsored expedition that collected holotype and founded the Bingham Oceanographic Collection at Yale University

Eustomias borealis **Clarke 2000** Latin for northern, referring to its distribution in the western North Atlantic north of 30˚N

Eustomias bulbiramis **Clarke 2001** *bulbus*, from *bolbós* (βολβός), bulb; *ramis* (L.), branch, referring to similar bulblets on all three branches of barbel

Eustomias cryptobulbus **Clarke 2001** *cryptos*, from *kryptós* (κρυπτός), hidden; *bulbus*, from *bolbós* (βολβός), bulb, referring to terminal bulb of barbel partially hidden by dorsal pigment patch and semi-opaque sheath

Eustomias curtifilis **Clarke 2000** *curtus* (L.), short; *filis* (scientific Neo-Latin), thread-like or filiform, referring to "short and simple" terminal filaments

Eustomias danae **Clarke 2001** in honor of the Danish fishery research vessel *Dana*, "whose collections continue to advance knowledge of pelagic organisms and provided the only confirmed specimens of this species"

Eustomias dendriticus **Regan & Trewavas 1930** Latin for branching (adjective), referring to branch of barbel stem, which in turn comprises several secondary branches

Eustomias dendrobium **Koeda & Ho 2019** *Dendrobium*, genus of orchids, referring to branches of chin barbel with many dendritic appendages of tiny luminous swellings, resembling the flowers of an orchid

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from previous page

[2] Vaillant, L. L. 1888. Expéditions scientifiques du "Travailleur" et du "Talisman" pendant les années 1880, 1881, 1882, 1883. Poissons. Paris. 1–406, Pls. 1–28.

[3] Gomon, J. R. and R. H. Gibbs, Jr. 1985. Taxonomy and distribution of the stomioid fish genus *Eustomias* (Melanostomiidae), II: *Biradiostomias*, new subgenus. Smithsonian Contributions to Zoology 409: 1–58.

Eustomias dinema **Clarke 1999** *di-*, from *dýo* (δύο), two; *nḗma* (νῆμα), thread or yarn, referring to pair of simple, thread-like filaments near end of barbel

Eustomias elongatus **Clarke 2001** Latin for prolonged, referring to elongate terminal bulb of barbel, the "relatively longest barbel" known within the subgenus

Eustomias fissibarbis **(Pappenheim 1912)** *fissus* (L.), cloven (i.e., split in two); *barbis* (scientific Neo-Latin), barbel, referring to how barbel bifurcates into two equally strong branches

Eustomias flagellifer **Clarke 2001** *flagellum*, diminutive of *flagrum* (L.), whip; *-ifer*, from *fera* (L.), to have or bear, referring to whip-like branches off main stem of barbel

Eustomias insularum **Clarke 1998** Latin for of islands, referring to its occurrence near the Cape Verde Islands

Eustomias intermedius **Clarke 1998** Latin for intermediate, referring to branches of barbel, intermediate in relative length between long-branched species (*E. achirus, aequatorialis*, *tomentosis*) and short-branched species (*E. insularum*, *woollardi*)

Eustomias interruptus **Clarke 1999** Latin for interrupted, referring to break in stem pigment between branch and bulb of barbel

Eustomias lanceolatus **Clarke 1999** Latin for lance-like, referring to lancet-like swelling on branch of barbel

Eustomias lipochirus **Regan & Trewavas 1930** *lipo-*, from *leípō* (λείπω), lacking or wanting; *cheirós* (χειρός), genitive of *cheír* (χείρ), hand (homologous to the pectoral fin), referring to absence of pectoral fins

Eustomias longiramis **Clarke 2001** *longus* (L.), long; *ramis* (L.), branch, referring to "extremely long" medial branch of barbel

Eustomias macronema **Regan & Trewavas 1930** *makrós* (μακρός), long or large; *nḗma* (νῆμα), thread or yarn, referring to "long and stout" terminal filament of barbel stem

Eustomias magnificus **Clarke 2001** Latin for great, referring to "large and ornate" terminal bulb with numerous branches

Eustomias minimus **Clarke 1999** Latin for least, referring to "shortness, slimness, and simplicity" of its barbel's branch and terminal filaments

Eustomias monoclonoides **Clarke 1999** *-oides*, Neo-Latin from *eī́dos* (εἶδος), form or shape: referring to similarity of bulb shape and pigmentation to those of *E. monoclonus*

Eustomias monoclonus **Regan & Trewavas 1930** *mono-*, from *mónos* (μόνος), one or single; *clonus*, from *chlóē* (χλόη), twig, grass, or first green shoot of plants in spring, referring to one slender, simple branch of barbel stem

Eustomias natalisa **Prokofiev 2020** a coined name without significance; Prokofiev (pers. comm.) had grown weary of finding available, unique yet suitable names for such a diverse genus, so he opted to coin an arbitrary name instead, one that sounded nice to the ear

Eustomias parini **Clarke 2001** in honor of ichthyologist Nikolai Vasil'evich Parin (1932–2012), Russian Academy of Sciences, who collected half the known specimens of this species, for his contributions to the biology of mesopelagic fishes

Eustomias paucifilis **Parr 1927** *paucus* (L.), few or scanty; *filis* (scientific Neo-Latin), thread-like or filiform, proposed as a subspecies of *E. bigelowi*, presumably referring to fewer (4) filaments at end of barbel compared to the nominate form (7)

Eustomias paxtoni **Clarke 2001** in honor of American-born Australian ichthyologist John R. Paxton (1938–2023), Australian Museum (Sydney), for contributions to the knowledge of pelagic fishes

Eustomias pinnatus **Clarke 1999** Latin for winged or feathered, referring to pinnate pattern of side filaments on terminal filaments of barbel

Eustomias problematicus **Clarke 2001** *problēmatikós* (προβληματικός), problematical, referring to the "initial enigma posed" by the short branches of its barbel; variability in their relative lengths "may well reflect damage undetectable in these tiny structures"

Eustomias satterleei **Beebe 1933** in honor of American lawyer Herbert L. Satterlee (1863–1947), a patron of the New York Zoological Society, where Beebe worked

Eustomias schmidti **Regan & Trewavas 1930** in honor of Danish biologist Johannes Schmidt (1877–1933), who led the *Dana* fishery research cruise that collected holotype

Eustomias silvescens **Regan & Trewavas 1930** *silva-*, from *sylva* (L.), wood or forest; *-escens* (L.), becoming, presumably referring to three tree-like filamentous branches at end of barbel, some of which are beaded or bear oval bulbs on short stalks

Eustomias similis **Parin 1978** Latin for like or similar, referring to its similarity to "some species, e.g., *E. fissibarbus*" (translation)

Eustomias tomentosis **Clarke 1998** Latin for having a mass of rough hairs, referring to numerous hair-like filaments on branches of barbel

Eustomias triramis **Regan & Trewavas 1930** *tri-* (L.), three; *ramis* (L.), branch, referring to three relatively simple branches arising from stem of barbel

Eustomias uniramis **Clarke 1999** *uni-*, from *unus* (L.), one; *ramis* (L.), branch, referring to single, mostly unadorned branch of barbel

Eustomias vulgaris **Clarke 2001** Latin for common or simple, referring to its branchless barbel

Eustomias woollardi **Clarke 1998** in honor of the late George P. Woollard (1908–1979), who, as director of the Hawaii Institute of Geophysics, "had a vision that extended well beyond his own discipline and did much to foster growth of all aspects of oceanography in the Pacific"

Eustomias zygolampas **Prokofiev 2019** *zygón* (ζυγόν), yoke, but here meaning a pair; *lampás* (λαμπάς), lamp, i.e., a paired lamp, referring to three appendages of barbel trunk, each of which carries a pair of luminous bulbs

Subgenus ***Furcostomias***
Prokofiev 2018
furca (L.), two-pronged fork, referring to stem of chin barbel bifurcate in the middle; *Stomias*, type genus of family

Eustomias crucis **Gibbs & Craddock 1973** genitive of *crux* (L.), cross (wooden frame for execution), referring to the Southern Cross, "the constellation that watches over the waters inhabited by this fish" (i.e., Southeastern Pacific)

Eustomias diplomastiga **Prokofiev 2018** *diplo-*, from *diplóos* (διπλόος) or *diploū́s* (διπλοῦς), twofold or double; *mástiga* (μάστιγα), accusative of *mástix* (μάστιξ), whip, referring to very long chin barbel that divides in the middle into two main branches

Subgenus ***Haploclonus***
Regan & Trewavas 1930
haplós (ἁπλός), single or simple; *clonus*, from *chlóē* (χλόη), twig, grass, or first green shoot of plants in spring, referring to barbel with a "simple tapering branch proximal to bulb"

Eustomias acinosus **Regan & Trewavas 1930** Latin for grape-like, referring to appendage on distal half of barbel bulb that resembles a bunch of grapes

Eustomias antea **Villarins, Fischer, Prokofiev & Mincarone 2023** named for *Antea*, the research vessel of the French oceanographic fleet, which conducts many deep-sea exploratory surveys around the world, including the ABRACOS (Acoustics along the BRAzilian COaSt) expedition during which holotype was collected

Eustomias bifilis **Gibbs 1960** *bi-*, from *bis* (L.), twice; *filis* (scientific Neo-Latin), thread-like or filiform, referring to main stem of barbel branching into a separate stem with distal bulb and branched terminal filament

Eustomias enbarbatus **Welsh 1923** *en-*, presumably an intensive prefix, i.e., very; *barbatus* (L.), bearded, "calling attention" to its "remarkable" barbel: "long, filamentous, an ovoid bulb at tip; near the base of this bulb arises a long filament containing at intervals yellowish ovoid bodies; from the distal portion of the bulb arise five short filaments, four of which are simple, two of them containing ovoid bodies; the fifth terminates in an ovoid body from which spring two longer filaments, tridentlike, both of which bifurcate; each of these latter contains in its proximal half several yellow bodies, the distal half being threadlike"

Eustomias lucenae **Villarins, Fischer, Prokofiev & Mincarone 2023** in honor of Flávia Lucena-Frédou, Universidade Federal Rural de Pernambuco (Brazil), for her "tireless efforts in supervising and supporting many students in the field of marine biology and conservation"

Eustomias mavka **Prokofiev 2018** a type of female spirit in scary Russian fairy tales, usually the souls of girls who had died unnatural, tragic or premature deaths, referring to the fact that stomiids are scary-looking fishes for people who don't appreciate or understand them (Prokofiev, pers. comm.)

Eustomias simplex **Regan & Trewavas 1930** Latin for simple or uncomplicated, referring to barbel "ending in a simple oblong bulb"

Eustomias stamen **Koeda & Ho 2019** botanical term for pollen-producing reproductive organ of a flower, referring to simple, thin, stamen-like appendage of branch arising near base of terminal chin-barbel bulb

Eustomias trewavasae **Norman 1930** in honor of British ichthyologist Ethelwynn Trewavas (1900–1993), British Museum of Natural History, for her work on the stomiid fishes of the *Dana* Expedition

Subgenus ***Neostomias***
Gilchrist 1906

néos (νέος), new, proposed as a new genus very close to *Eustomias*

Eustomias filifer **(Gilchrist 1906)** *filum* (L.), thread; *-ifer*, from *fera* (L.), to have or bear, presumably referring to its pectoral fins, which are "reduced (apparently) to single filaments"

Eustomias jimcraddocki **Sutton & Hartel 2004** in honor of James E. Craddock (1937–2009), Woods Hole Oceanographic Institution, for his many contributions to our knowledge of deep-sea fishes

Eustomias monodactylus **Regan & Trewavas 1930** *mono-*, from *mónos* (μόνος), one or single; *dáktylos* (δάκτυλος), finger, referring to one pectoral-fin ray

Eustomias tetranema **Zugmayer 1913** *tetrá* (τετρά), four; *nḗma* (νῆμα), thread or yarn, referring to four filaments (three branches and one main stem) at end of barbel

Subgenus ***Nominostomias***
Regan & Trewavas 1930

etymology not explained and allusion not evident, possibly *nomino* (L.), to call by name, perhaps a nominal (existing or being something in name only) genus of *Stomias* (or nominal subgenus of *Eustomias*)

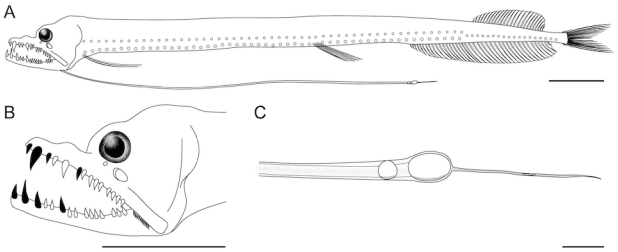
Eustomias appositus **Gibbs, Clarke & Gomon 1983** Latin for contiguous, referring to contiguous terminal bulbs of barbel

Eustomias arborifer **Parr 1927** *arbor* (L.), fig-tree (but often used to mean a tree in general); *-ifer*, from *fera* (L.), to have or bear, referring to "richly branched" terminal appendage of barbel, "more or less filled with strings of microscopical bodies of luminous tissue"

Eustomias australensis **Gibbs, Clarke & Gomon 1983** *-ensis*, Latin suffix denoting place: Australia, known only from the Tasman Sea off southeastern Australia

Eustomias austratlanticus **Gibbs, Clarke & Gomon 1983** *-icus* (L. suffix), belonging to: *auster* (L.), the south wind, referring to its occurrence in the South Atlantic Ocean

Eustomias bertelseni **Gibbs, Clarke & Gomon 1983** in honor of Danish ichthyologist Erik Bertelsen (1912–1993), for his contributions to deep-sea biology and his long service to ichthyologists, especially those who have worked with the *Dana* Expedition collections under his care



Eustomias bertrandi, holotype. A: whole specimen (scale bar: 10 mm). B: dentition (fixed teeth in black; scale bar: 10 mm). C: terminal portion of chin barbel (scale bar: 1 mm). From: Villarins, B. T., L. G. Fischer, A. M. Prokofiev and M. M. Mincarone. 2023. Four new species of dragonfish genus *Eustomias* (Stomiiformes: Stomiidae: Melanostomiinae) from the western tropical Atlantic, with remarks on *Eustomias minimus* Clarke, 1999. Zoological Journal of the Linnean Society. 202 (1): 1–17. [Published online in 2023, in print 2024.]

Eustomias bertrandi **Villarins, Fischer, Prokofiev & Mincarone 2023** in honor of Arnaud Bertrand, Senior Researcher at the Institut de Recherche pour le Développement (France), for his "commitment, enthusiasm, and leadership" in conducting the ABRACOS (Acoustics along the BRAzilian COaSt) expeditions and many other marine biology-related projects

Eustomias bibulboides **Gibbs, Clarke & Gomon 1983** *-oides*, Neo-Latin from *eī́dos* (εἶδος), form or shape: *E. bibulbosus*, both of which possess a "similarly simple" barbel filament

Eustomias bibulbosus **Parr 1927** *bi-*, from *bis* (L.), twice; *bulbosus* (L.), bulbous, referring to two conspicuous luminous bodies (bulbs) on barbel

Eustomias bimargaritatus **Regan & Trewavas 1930** *bi-*, from *bis* (L.), twice; *margaritatus* (L.), adorned with pearls, presumably referring to two bulbs on barbel

Eustomias bimargaritoides **Gibbs, Clarke & Gomon 1983** *-oides*, Neo-Latin from *eī́dos* (εἶδος), form or shape: *E. bimarginatus*, referring to the similarity of their terminal barbel filaments

Eustomias bituberatus **Regan & Trewavas 1930** *bi-*, from *bis* (L.), twice; *tuberatus* (L.), covered with knobs, referring to two bulbs on barbel, "the distal the larger, separated by a distance greater than the diameter of either"

Eustomias bituberoides **Gibbs, Clarke & Gomon 1983** *-oides*, Neo-Latin from *eī́dos* (εἶδος), form or shape: *E. bituberatus*, referring to the "similarly very long" barbel of both species

Eustomias bulbornatus **Gibbs 1960** *bulbus* (L.), a swelling; *ornatus* (L.), decorated or adorned, referring to single terminal bulb bearing an ornate assemblage of terminal appendages

Eustomias cancriensis **Gibbs, Clarke & Gomon 1983** *-ensis*, Latin suffix denoting place: along the Tropic of Cancer, where it occurs

Eustomias cirritus **Gibbs, Clarke & Gomon 1983** Latin for having filaments, referring to delicate filaments at end of barbel

Eustomias crossotus **Gibbs, Clarke & Gomon 1983** *krossōtós* (κροσσωτός), tasseled or fringed, referring to branched filament of barbel

Eustomias curtatus **Gibbs, Clarke & Gomon 1983** Latin for shortened, referring to short barbel and "diminutive projection" of its single terminal bulb

Eustomias deofamiliaris **Gibbs, Clarke & Gomon 1983** *deus* (L.), a god; *familiaris* (L.), of a house or household (but used here to mean "knowing intimately"), an "allusion to the fact that we mortals are uncertain whether this specimen represents a valid species or a wildly different anomalous condition of some other species," i.e., only God knows if this species is really a species

Eustomias gibbsi **Johnson & Rosenblatt 1971** in honor of American ichthyologist Robert H. Gibbs, Jr. (1929–1988), for his many contributions to the biology and systematics of stomiatoid fishes

Eustomias grandibulbus **Gibbs, Clarke & Gomon 1983** *grandis* (L.), large; *bulbus*, from *bolbós* (βολβός), bulb, referring to large distal bulb of barbel

Eustomias inconstans **Gibbs, Clarke & Gomon 1983** Latin for variable or inconsistent, referring to the variable presence or absence of a second terminal bulb on barbel

Eustomias kreffti **Gibbs, Clarke & Gomon 1983** in honor of German ichthyologist Gerhard Krefft (1912–1993), Institut für Seefischerei (Hamburg), "whose scientific contributions have enriched our knowledge, and whose inspiration and leadership of the 'Walther Herwig' expeditions and sharing of the resulting materials have revolutionized studies of the systematics and zoogeography of deep-sea fishes"

Eustomias kukuevi **Prokofiev 2018** in honor of Russian ichthyologist Efim Izrailevich Kukuev (1947–2022, also spelled Kukujev and Kukuyev), Atlantic Scientific Research Institute of Marine Fisheries & Oceanography (AtlantNIRO), associate, friend and occasional coauthor, who has made a "large contribution" (translation) to the study of mesobathypelagic fishes of the Atlantic Ocean

Eustomias longibarba **Parr 1927** *longus* (L.), long; *barba* (L.), beard, referring to its "very long" barbel, ~⅔ length of body

Eustomias medusa **Gibbs, Clarke & Gomon 1983** named for Medusa, one of the three Gorgons in Greek mythology, with living snakes in place of hair, name of a gorgon with snaky locks, referring to the numerous filaments arising from its distal barbel bulb

Eustomias melanonema **Regan & Trewavas 1930** *mélanos* (μέλανος), genitive of *mélas* (μέλας), black; *nḗma* (νῆμα), thread or yarn, referring to six "pigmented" filaments that arise together, but separately, from end of distal barbel bulb

Eustomias melanostigma **Regan & Trewavas 1930** *mélanos* (μέλανος), genitive of *mélas* (μέλας), black; *stígma* (στίγμα), mark or spot, referring to spot of pigment at base of distal barbel bulb

Eustomias melanostigmoides **Gibbs, Clarke & Gomon 1983** *-oides*, Neo-Latin from *eî́dos* (εἶδος), form or shape: *E. melanostigma*, referring to the "basic similarity" of their barbels

Eustomias mesostenus **Gibbs, Clarke & Gomon 1983** *mésos* (μέσος), middle; *sténos* (στένος), narrow, referring to terminal barbel bulb, which is constricted in the middle

Eustomias micraster **Parr 1927** *mikrós* (μικρός), small; *astḗr* (ἀστήρ), star, presumably referring to "whitish" luminous bodies on barbel, with "scattered, microscopical dots" on terminal filament

Eustomias multifilis **Parin & Pokhil'skaya 1978** *multi-* (L.), many; *filis* (scientific Neo-Latin), thread-like or filiform, referring to multiple filaments or appendages at terminal bulb of barbel

Eustomias ophioglossa **Villarins, Fischer, Prokofiev & Mincarone 2023** *óphis* (ὄφις), serpent; *glṓssa* (γλῶσσα), tongue, referring to terminal filament splitting at the tip

Eustomias orientalis **Gibbs, Clarke & Gomon 1983** Latin for eastern, referring to its distribution in the part of world known as the Orient (from the westernmost Pacific north of New Guinea to Suruga Bay, Japan)

Eustomias pacificus **Gibbs, Clarke & Gomon 1983** *-icus* (L.), belonging to: Pacific Ocean, where it is endemic

Eustomias patulus **Regan & Trewavas 1930** Latin for open, spread out or broad, presumably referring to branched terminal filament at end of barbel

Eustomias perplexus **Gibbs, Clarke & Gomon 1983** Latin for interwoven, entangled or intricate (authors say puzzling), referring to its "perplexing combination" of characters of *E. longibarba* and *E. curtatus*

Eustomias posti **Gibbs, Clarke & Gomon 1983** in honor of German zoologist Alfred Post (b. 1935), Institut für Seefischerei (Hamburg), for his contributions to the knowledge of deep-sea fishes and his continuing services to the ichthyological community

Eustomias robertsi **Stewart, Kenaley & Sutton 2024** in honor of Clive Roberts (b. 1952), former Curator of Fishes at the Museum of New Zealand Te Papa Tongarewa; he "conceived, secured funding for, and directed a 20-year project to describe the fish fauna of New Zealand, culminating in publication of the award-winning multi-volume 2,000 page *The Fishes of New Zealand*" (2015)

Eustomias spherulifer **Gibbs, Clarke & Gomon 1983** *spherula* (L.), little sphere or ball; *-ifer*, from *fera* (L.), to have or bear, referring to spherical or granular inclusions in distal half of barbel stem

Eustomias suluensis **Gibbs, Clarke & Gomon 1983** *-ensis*, Latin suffix denoting place: Sulu Sea, off the Philippine Islands, type locality

Eustomias teuthidopsis **Gibbs, Clarke & Gomon 1983** *teuthidos* (τευθῖδος), genitive of *teuthís* (τευθίς), squid; *ópsis* (ὄψις), appearance, referring to terminal filaments of barbel, which resemble the arms and enlarged pair of tentacles of a squid

Eustomias tritentaculatus **Koeda & Ho 2019** *tri-* (L.), three; *tentaculatus* (L.), with feelers (i.e., small tentacles), referring to three terminal filaments of chin barbel

Eustomias vitiazi **Parin & Pokhil'skaya 1974** in honor of the research vessel *Vitiaz* (also spelled *Vityaz*), from which holotype was collected

Subgenus ***Rhynchostomias***
Regan & Trewavas 1930
rhýnchos (ῥύγχος), snout, allusion not explained, perhaps referring to "somewhat swollen filament" at end of barbel bulb; *Stomias*, type genus of family (or an abridgement of *Eustomias*)

Eustomias parri **Regan & Trewavas 1930** in honor of Norwegian-born marine biologist Albert Eide Parr (1900–1991), for his work on the Bingham Collection of marine fishes, which included several stomiids

Subgenus ***Spilostomias***
Regan & Trewavas 1930
spílos (σπίλος), mark or spot, referring to small white spots above and below lateral photophores; *Stomias*, type genus of family (or an abridgement of *Eustomias*)

Eustomias ansiluminis **Villarins, Fischer, Prokofiev & Mincarone 2025** *ansa* (L.), handle or loop; *luminis*, genitive of *lumen* (L.), light, referring to its unique luminous barbel, with a distinctive loop-like filament that surrounds and highlights the bioluminescent nature of the bulb, i.e., a "loop of light"

Eustomias braueri **Zugmayer 1911** in honor of German zoologist August Brauer (1863–1917), Berlin Zoological Museum, at that time one of the world's leading authorities on deep-sea fishes

Subgenus ***Urostomias***
Regan & Trewavas 1930
uro, from *ourá* (οὐρά), tail, referring to long tail of *E. macrurus*; *Stomias*, type genus of family (or an abridgement of *Eustomias*)

Eustomias macrurus **Regan & Trewavas 1930** large-tailed, from *makrós* (μακρός), long or large, and *urus*, from *ourá* (οὐρά), tai, referring to its long tail (posterior portion of body is relatively elongate)

Eustomias mikhailini **Prokofiev 2020** in honor of Russian ichthyologist Sergey Vladimirovich Mikhailin (1943–1981), member of 1976 R/V *Fiolent* cruise during which holotype was collected, and who mentioned this species in his report [biographical footnote: Mikhailin died while saving people from a burning train]

Eustomias shunyo **Kimura, Tsuda & Nakayama 2023** named for the FRV (Fishery Research Vessel) *Shunyo-maru*, which collected the type specimens

Subgenus ***Triclonostomias***
Regan & Trewavas 1930
tri- (L.), three and *clonus*, from *chlóē* (χλόη), twig, grass, or first green shoot of plants in spring, referring to three branches that arise from barbel stem before bulb; *Stomias*, type genus of family (or an abridgement of *Eustomias*)

Eustomias clarkei **Kimura 2026** in honor of the late Thomas A. Clarke (1940–2013), for his "great" contributions to the knowledge of Hawaiian fishes, as well as the taxonomy of *Eustomias*

Eustomias decoratus **Gibbs 1971** Latin for adorned or embellished, referring to its "spectacular" barbel (with yellow bulbs in freshly caught specimens and multiple branches and filaments)

Eustomias drechseli **Regan & Trewavas 1930** in honor of Commodore Christian Frederik "Frits" Drechsel (1854–1927), President of the Dana Committee for the Study of the Sea, which managed *Dana* Expedition that collected the stomiiform species the authors described

Eustomias furcifer **Regan & Trewavas 1930** *furca* (L.), two-pronged fork; *-ifer*, from *fera* (L.), to have or bear, referring to forked median branch of barbel stem

Eustomias kikimora **Prokofiev 2015** named for Kikimora, "petty forest evil spirits of Russian fairy tales" (translation), because melanostomiins are "somewhat terrible in appearance" (A. Prokofiev, pers. comm.)

Eustomias oshoromaru **Kimura 2026** named for the T/S *Oshoro-maru* (Faculty of Fisheries Sciences, Hokkaido University), which collected holotype

Eustomias radicifilis **Borodin 1930** *radicis*, genitive singular of *radix* (L.), root; *filis* (scientific Neo-Latin), thread-like or filiform, referring to several long filaments on barbel, "some of them ending in minute bulbs resembling those on plant roots"

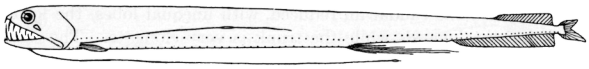
Eustomias tenisoni **Regan & Trewavas 1930** in honor of Lt.-Col. William Percival Cosnahan Tenison (1884–1983), British Army officer who was also a painter and scientific illustrator, whose "accurate and artistic drawings" are reproduced as plates in the authors' monograph

Flagellostomias

Parr 1927

flagellum, diminutive of *flagrum* (L.), whip, perhaps referring to its "isolated and strongly produced" pectoral-fin ray; *Stomias*, type genus family

Flagellostomias boureei **(Zugmayer 1913)** in honor of Lt. Henri Bourée (1873–?), French naval officer and aide-de-camp to Albert Honoré Charles Grimaldi (1848–1922), Albert I, Prince of Monaco, who founded his country's Institut Océanographique, which published this fish's description



Possibly first-published image of *Flagellostomias boureei* (as *F. tyrannus*, a junior synonym). See *Bathophilus pawneei* caption for source.

Grammatostomias

Goode & Bean 1896

grámmatos (γράμματος), genitive singular of *grámma* (γράμμα), that which is written or drawn (but here meaning line), referring to series of pigment cells along median line of body of *G. dentatus*, "so arranged as to simulate a lateral line"; *Stomias*, type genus of family

Grammatostomias circularis **Morrow 1959** Latin for round, referring to nearly circular shape of lateral loop of luminous tissue on sides above lateral row of serial photophores

Grammatostomias dentatus **Goode & Bean 1896** Latin for toothed, presumably referring to its "fang-like" teeth

Grammatostomias flagellibarba **Holt & Byrne 1910** *flagellum*, diminutive of *flagrum* (L.), whip; *barba* (L.), beard, referring to its long and slender barbel, about six times as long as body

Grammatostomias circularis, holotype, 135.6 mm SL. Illustration by Shirley Glaser. From: Morrow, J. E., Jr. 1959. A new species of *Grammatostomias* (family Melanostomiatidae) from the Western North Atlantic. Postilla 40: 1–4.

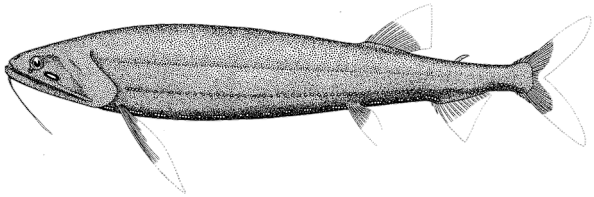
Grammatostomias ovatus **Prokofiev 2014** Latin for egg-shaped (i.e., oval), referring to typical ring-shaped pattern of luminous tissue on sides

Heterophotus

Regan & Trewavas 1929

héteros (ἕτερος), different; *photus*, from *phōtō-* (φωτω-), combining form of *phṓs* (φῶς), light, referring to ventral photophores mostly in linear groups as opposed to in a series spread out along the body

Heterophotus ophistoma **Regan & Trewavas 1929** *óphis* (ὄφις), serpent; *stóma* (στόμα), mouth, referring to "very wide" (and therefore snake-like) cleft of mouth



Heterophotus ophistoma, with damaged fins reconstructed. Illustration by William P. C. Tenison. See *Borostomias panamensis* caption for source.

Ichthyococcus

Bonaparte 1840

ichthýs (ἰχθύς), fish; *coccus*, Latinization of Cocco, referring to Italian naturalist-pharmacist Anastasio Cocco (1799–1854), who described three species of the family in 1838

Ichthyococcus australis **Mukhacheva 1980** Latin for southern, referring to its distribution in the Southern Hemisphere

Ichthyococcus elongatus **Imai 1941** Latin for prolonged, referring to its more elongate body compared with *I. ovatus*

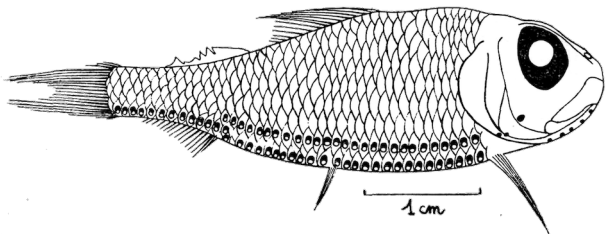
Ichthyococcus intermedius **Mukhacheva 1980** Latin for intermediate, described as in form between *I. ovatus* and *I. polli*

Ichthyococcus irregularis **Rechnitzer & Böhlke 1958** Latin for irregular, referring to irregular arrangement of ventral photophores in front of pectoral fin

Ichthyococcus ovatus **(Cocco 1838)** Latin for egg-shaped, referring to its body shape ("Il suo corpo è ovato")

Ichthyococcus parini **Mukhacheva 1980** in honor of Nikolai Vasil'evich Parin (1932–2012), Russian Academy of Sciences, for his work on oceanic fishes

Ichthyococcus polli **Blache 1964** in honor of Belgian ichthyologist Max Poll (1908–1991), for his "considérable" contributions to the science



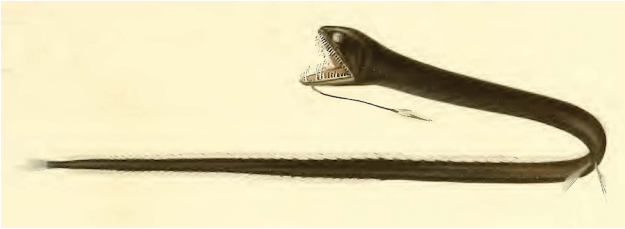
Ichthyococcus polli. From: Blache, J. 1964. *Ichthyococcus polli* nov. sp. (Gonostomidae) poisson téléostéen bathypélagique nouveau de l'Atlantique tropical africain. Bulletin du Muséum National d'Histoire Naturelle (Série 2) 35 (5) (for 1963): 468–472.

Idiacanthus

Peters 1877

ídios (ἴδιος), distinctive or peculiar; *acanthus* (L.), from *ákantha* (ἄκανθα), thorn, presumably referring to pair of short, pointed, bony projections anterior to and flanking each dorsal- and anal-fin ray of *I. fasciola*

Idiacanthus antrostomus **Gilbert 1890** etymology not explained, probably cave-mouthed, from *antrum* (L.), cavern, and *stóma* (στόμα),



Probably first-published image of *Idiacanthus fasciola*. Illustration by Fritz Winter. From: Brauer, A. 1906. Die Tiefsee-Fische. I. Systematischer Teil. *In*: C. Chun. Wissenschaftl. Ergebnisse der deutschen Tiefsee-Expedition "Valdivia," 1898-99. Jena. v. 15: 1–432, Pls. 1–18.

mouth, referring to its large (i.e., cavernous) mouth

Idiacanthus atlanticus **Brauer 1906** *-icus* (L.), belonging to: eastern Atlantic Ocean, type locality

Idiacanthus fasciola **Peters 1877** *fasciola*, diminutive of *fascia* (L.), band, presumably referring to its band- or ribbon-shaped ("bandförmigen") body

Leptostomias

Gilbert 1905

leptós (λεπτός), thin or slender, referring to "extremely elongate" body of *L. macronema*; *Stomias*, type genus of family

Leptostomias analis **Regan & Trewavas 1930** Latin for anal, referring to more anal-fin rays (28) compared to congeners at time of description

Leptostomias bermudensis **Beebe 1932** *-ensis*, Latin suffix denoting place: 7.5 miles southeast of Nonsuch Island, Bermuda, type locality

Leptostomias bilobatus **(Koefoed 1956)** *bi-*, from *bis* (L.), twice; *lobatus* (L.), lobed, referring to terminal barbel bulb divided into two lobes furnished with filaments

Leptostomias gladiator **(Zugmayer 1911)** a nickname for the English Bulldog; Zugmayer said its large head, with its flattened snout and prominent teeth, resembled the head of a "bouledogue"

Leptostomias gracilis **Regan & Trewavas 1930** Latin for thin or slender, referring to its elongate body, body depth about 13 times in the length

Leptostomias haplocaulus **Regan & Trewavas 1930** *haplós* (ἁπλός), single or simple; *caulus* (Late Latin), stem, referring to stem of barbel "without filaments or appendages"

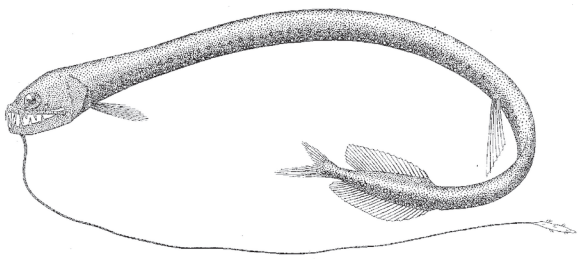
Leptostomias leptobolus **Regan & Trewavas 1930** *leptós* (λεπτός), thin or slender; *bŏlos* (βῶλος), lump or morsel, referring to elongate bulb of barbel

Leptostomias longibarba **Regan & Trewavas 1930** *longus* (L.), long; *barba* (L.), beard, referring to long barbel, nearly as long as the fish itself

Leptostomias macronema **Gilbert 1905** *makrós* (μακρός), long or large; *nḗma* (νῆμα), thread or yarn, referring to its long barbel (here called a "gular filament"), 60% of body length

Leptostomias macropogon **Norman 1930** *makrós* (μακρός), long or large; *pŏgōn* (πώγων), beard, referring to long barbel, nearly 75% total length

Leptostomias multifilis **Imai 1941** *multi-* (L.), many; *filis* (scientific Neo-Latin), thread-like or filiform, presumably referring to numerous short filaments on distal half of barbel bulb



Leptostomias longibarba. See *Chirostomias pliopterus* caption for source.

Leptostomias robustus **Imai 1941** Latin for of oak or oaken and, by extension, hard, firm or solid (but often used by ichthyologists to mean fat or stout), probably referring to middle section of body, deeper than that of *L. multifilis*, described in the same paper

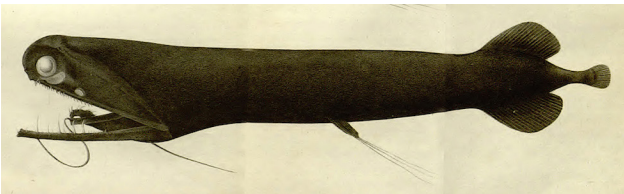
Malacosteus

Ayres 1848

malakós (μαλακός), soft; *osteus* (Neo-Latin), bony, from *ostéon* (ὀστέον), bone, referring to the "extreme softness" of the bones of *M. niger*, "which can be pierced even in their hardest parts by a needle, with the greatest ease"[4]

Malacosteus australis **Kenaley 2007** Latin for southern, referring to its geographical range (subtropical and temperate waters of the Southern Hemisphere and equatorial waters of the Indian Ocean and Indo-Australian Archipelago, south to New Caledonia)

Malacosteus niger **Ayres 1848** Latin for dark or black, referring to its color



First-published image of *Malacotseus niger*. Illustration by Oscar Wallis. From: Ayres, W. O. 1849. Description of a new genus of fishes, *Malacosteus*. Boston Journal of Natural History 6 (1): 53–64, Pl. 5.

Melanostomias

Brauer 1902

mélanos (μέλανος), genitive of *mélas* (μέλας), black, referring to overall black coloration of *M. melanops* and *M. valdiviae*; *Stomias*, type genus of family

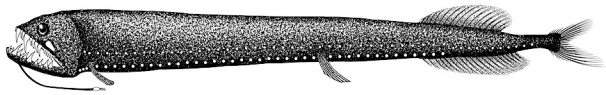
Melanostomias bartonbeani **Parr 1927** in honor of Barton A. Bean (1860–1947), Assistant Curator of Fishes, United States National Museum, where he worked with his brother, ichthyologist Tarleton H. Bean, and where Parr discovered the holotype

Melanostomias biseriatus **Regan & Trewavas 1930** *bi-*, from *bis* (L.), twice; *seriatus* (L.), in a row, referring to two rows of "white luminous bodies" on distal half of barbel

Melanostomias dio **Villarins, Fischer, Prokofiev & Mincarone 2023** in honor of the late Ronald James Padavona (1942–2010), professionally known as Ronnie James Dio, a heavy metal vocalist who popularized the hand gesture commonly referred to as "horns up," which resembles the shape of the terminal bulb on the chin barbel of this species

Melanostomias globulifer **Fowler 1934** *globulus*, diminutive of *globus* (L.), round mass or ball; *-ifer*, from *fera* (L.), to have or bear, referring to two sets of "globular or ovoid white bodies" along "median axis or midrib" of barbel

Melanostomias macrophotus **Regan & Trewavas 1930** *makrós* (μακρός), long or large; *photus*, from *phōtō-* (φωτω-), combining form of *phŏs* (φῶς), light, referring to large luminous bulb at end of barbel



Melanostomias dio, holotype, male, 180 mm SL. From: Villarins, B. T., L. G. Fischer, A. M. Prokofiev and M. M. Mincarone. 2023. A new species of the dragonfish genus *Melanostomias* (Stomiidae: Melanostomiinae) from the western tropical Atlantic. Ichthyology & Herpetology 111 (2): 254–263.

[4] In a more-detailed follow-up to his original description, Ayres wondered if a different generic name, one drawn from the "peculiarities" of its bizarre head, would be "more characteristic" than the one he proposed, but decided against it since the head was "so remarkably different from those of any other fish known that it is difficult to settle their relations, and it is very probable that in our conjectures as to their analogy we may err widely from the truth." (See caption of *Malacosteus niger* for reference.)

Melanostomias margaritifer **Regan & Trewavas 1930** *margarita* (L.), pearl; *-ifer*, from *fera* (L.), to have or bear, i.e., pearly, presumably referring to luminous bulb, described as a "large oval white body," on distal half of barbel stem

Melanostomias melanopogon **Regan & Trewavas 1930** *mélanos* (μέλανος), genitive of *mélas* (μέλας), black; *pōgōn* (πώγων), beard, referring to barbel in adults, which is "black right up to the bulb, except for a white spot near proximal end of swollen point"

Melanostomias melanops **Brauer 1902** *mélanos* (μέλανος), genitive of *mélas* (μέλας), black; *ōps* (ὦψ), eye or face (i.e., appearance), referring to velvety black body coloration and/or black iris

Melanostomias niger **Gilchrist & von Bonde 1924** Latin for dark or black, referring to its color

Melanostomias nigroaxialis **Parin & Pokhil'skaya 1978** *nigro-*, from *niger* (L.), dark or black; *axialis* (scientific Neo-Latin), of the axis, referring to black pigmentation of entire barbel axis (compared with partial pigmentation of *M. melanops*)

Melanostomias paucilaternatus **Parin & Pokhil'skaya 1978** *-atus* (L.), provided with: *paucus* (L.), few or scanty, and *laterna* (L.), lantern, lamp or torch, referring to single luminous bulb in expanded part of barbel

Melanostomias pauciradius **Matsubara 1938** *paucus* (L.), few or scanty; *radius* (L.), ray, referring to fewer pectoral-fin rays compared to "allied species"

Melanostomias pollicifer **Parin & Pokhil'skaya 1978** *pollicis*, genitive singular of *pollux* (L.), thumb; *-ifer*, from *fera* (L.), to have or bear, referring to how tip of barbel stem covers terminal bulb the way a thumb covers a fist

Melanostomias spilorhynchus **Regan & Trewavas 1930** *spílos* (σπίλος), mark or spot; *rhynchus*, from *rhýnchos* (ῥύγχος), snout (i.e., jaw), referring to bluish-white spot on middle of snout

Melanostomias stewarti **Fowler 1934** in honor of zoologist Norman H. Stewart (d. 1970), Bucknell University (Pennsylvania, USA), who "furnished [Fowler] with ichthyological material"

Melanostomias tentaculatus **(Regan & Trewavas 1930)** *-atus* (L.), provided with: *tentacule* (L.), feeler, i.e., small tentacle, referring to barbel with a "terminal fringe of 7 to 10 minute filaments"

Melanostomias valdiviae **Brauer 1902** of the Valdivia Expedition (1898–99), named for the research vessel *Valdivia*, the first German expedition to explore the deep sea, during which type was collected

Melanostomias vierecki **Fowler 1934** in honor of the late Henry L. Viereck (1881–1831), American entomologist who specialized in Hymenoptera, to whom Fowler was "indebted" for collections of fishes

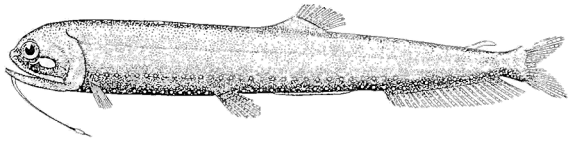
Neonesthes

Regan & Trewavas 1929

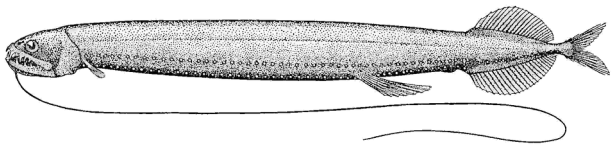
néos (νέος), new; *esthes*, suffix referring to *Astronesthes*, i.e., a new genus of *Astronesthes*

Neonesthes capensis **(Gilchrist & von Bonde 1924)** *-ensis*, Latin suffix denoting place: presumably referring to Cape Town, South Africa, where type locality (Table Bay) is situated

Neonesthes microcephalus **Norman 1930** small-headed, from *mikrós* (μικρός), small, and *kephalḗ* (κεφαλή), head, referring to smaller head and mouth compared with *N. macrolychnus* (=*capensis*)



Neonesthes microcephalus, holotype. Illustration by William P. C. Tenison. From: Norman, J. R. 1930. Oceanic fishes and flatfishes collected in 1925-1927. Discovery Reports 2: 261–369, Pl. 2.



Odontostomias masticopogon, holotype. From: Norman, J. R. 1930. Oceanic fishes and flatfishes collected in 1925-1927. Discovery Reports 2: 261–369, Pl. 2.

Odontostomias

Norman 1930

odonto, Neo-Latin combining form of *odoús* (ὀδούς), tooth, possibly referring to how fangs of lower jaw, unlike *Opostomias*, do not perforate premaxillaries when mouth is closed; *Stomias*, type genus of family

Odontostomias masticopogon **Norman 1930** *mastico-*, from *mástix* (μάστιξ), whip; *pōgōn* (πώγων), beard, referring to long barbel, 1⅓ times length of fish

Odontostomias micropogon **Norman 1930** *mikrós* (μικρός), small; *pōgōn* (πώγων), beard, referring to small barbel, ¼ to ⅔ length of head

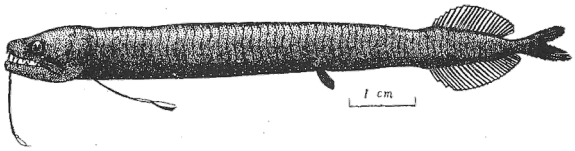
Opostomias

Günther 1887

opós (ὀπός), genitive of *óps* (ὄψ), eye, referring to luminous organ above maxillary, small and round "like a rudimentary eye" and/or to other numerous "eye-like" luminous organs on *O. micripnus*; *Stomias*, type genus of family

Opostomias micripnus **(Günther 1878)** *mikrós* (μικρός), small; *ipnós* (ἰπνός), lantern, referring to luminous organs, which, according to Günther 1887, "appear as innumerable minute tubercles more or less raised above the surface of the skin," covering sides of body

Opostomias mitsuii **Imai 1941** in honor of Takanaga Mitsui (1892–1962), founder, Mitsui Institute of Marine Biology, for "affording [Imai] the facility of the study"



Opostomias mitsuii, holotype, 81 mm SL. From: Imai, S. 1941. Seven new deep-sea fishes obtained in Sagami Sea and Suruga Bay. Japanese Journal of Zoology 9 (2): 233–250.

Pachystomias

Günther 1887

pachýs (παχύς), thick, presumably referring to head of *P. microdon*, "enveloped in rather thick skin"; *Stomias*, type genus of family

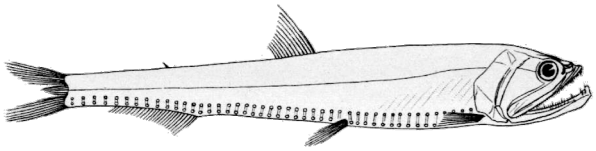
Pachystomias microdon **(Günther 1878)** *mikrós* (μικρός), small; *odon*, from *odoús* (ὀδούς), tooth, referring to its "rather small" teeth

Probably first-published image of *Pachystomias microdon*. Illustration by Robert Mintern. See *Echiostoma barbatum* caption for source.

Phosichthys

Hutton 1872

phōs (φῶς), light, referring to series of phosphorescent spots along lower side of body and tail; *ichthýs* (ἰχθύς), fish



First-published image of *Phosichthys argenteus*. From: Hutton, F. W. 1873. Contributions to the ichthyology of New Zealand. Transactions and Proceedings of the New Zealand Institute 5: 259–272, Pls. 7–12, 15.

Phosichthys argenteus **Hutton 1872** Latin for silvery, referring to silvery sides and/or numerous silvery bands on abdomen

Photonectes

Günther 1887

phōtō- (φωτω-), combining form of *phṓs* (φῶς), light, probably referring to suborbital phosphorescent organ, and two series of luminous dots along lower part of sides, with numerous rudimentary similar organs scattered over skin of body; *nḗktēs* (νήκτης), swimmer

Subgenus *Photonectes*

Photonectes achirus **Regan & Trewavas 1930** *á-* (ἄ), privative, i.e., without; *cheirós* (χειρός), genitive of *cheír* (χείρ), hand (homologous to the pectoral fin), referring to absence of pectoral fins (a diagnostic feature of the subgenus)

Photonectes albipennis **(Döderlein 1882)** *albus* (L.), white; *pennis*, Neo-Latin adjective of *penna*, fin, referring to "opaque white" (translation) anal and caudal fins

Photonectes banshee **Koeda & Ho 2019** named for female spirit in Irish mythology meaning "keening fairy or female" in Old Irish, referring to series of blue luminous tissue on ventral side of body that resemble the tears of the keening fairy

Photonectes barnetti **Klepadlo 2011** in honor of the late Michael Barnett (1945–1988), American marine biologist, Scripps Institution of Oceanography, who collected holotype in 1971 and recognized it as a new species

Photonectes braueri **(Zugmayer 1913)** in honor of German zoologist August Brauer (1863–1917), Berlin Zoological Museum, at that time one of the world's leading authorities on deep-sea fishes

Photonectes caerulescens **Regan & Trewavas 1930** Latin for bluish, referring to "luminous blue" mid-ventral stripe from chest to pelvics and small patches of blue luminous tissue on sides of isthmus, under lower jaw, and above end of maxillary

Photonectes coffea **Klepadlo 2011** from *Coffea arabica*, the dominant cultivar of coffee, referring to shape of terminal chin-barbel bulb, which resembles a coffee bean

Photonectes cornutus **Beebe 1933** Latin for horned, allusion not explained, possibly referring to thick, short, black, club-shaped appendage on barbel stem [*species inquirenda* because several key characters cannot be established due to poor condition of only known specimen]

Photonectes corynodes **Klepadlo 2011** *-odes*, Neo-Latin from *eī́dos* (εἶδος), form or shape: *korýnē* (κορύνη), club, mace or club, referring to mace- or club-shaped luminous terminal chin-barbel bulb

Photonectes cyanogrammicus **Prokofiev & Klepadlo 2019** *cyano-*, from *kýanos* (κύανος), dark blue (but here meaning blue in general); *grammicus*, linear (i.e., streaked), referring to transverse streaks of blue luminous tissue on ventral side of body

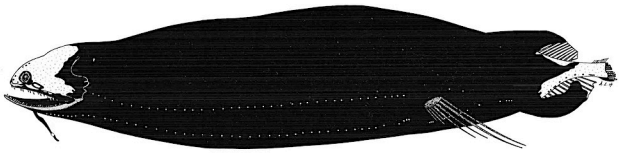
Photonectes dinema **Regan & Trewavas 1930** *di-*, from *dýo* (δύο), two; *nḗma* (νῆμα), thread or yarn, referring to pair of short filaments at end of second barbel bulb

Photonectes distichodon **Prokofiev 2019** *di-*, from *dýo* (δύο), two, and *stichus*, from *stíchos* (στίχος), line or row, i.e., of two rows; *odon*, from *odoús* (ὀδούς), tooth referring to biserial dentition of premaxillary

Photonectes gracilis **Goode & Bean 1896** Latin for thin or slender, referring to its "much more slender" body compared with *P. albipennis*

Photonectes klepadloae **Prokofiev & Frable 2021** in honor of Cynthia Klepadlo (1945–2020), former collection manager, Marine Vertebrates Collection, Scripps Institution of Oceanography (La Jolla, California, USA); she was an expert in midwater fishes, specializing in myctophids and stomiiforms with a particular interest in *Photonectes*, describing seven species (25% of all known species)

Photonectes leucospilus **Regan & Trewavas 1930** white-spotted, from



Photonectes munificus, holotype, female, 371 mm SL. Illustration by Ann Hoskins. From: Gibbs, R. H., Jr. 1968. *Photonectes munificus*, a new species of melanostomiatid fish from the south Pacific subtropical convergence, with remarks on the convergence fauna. Contributions in Science (Los Angeles) 149: 1–6.

leukós (λευκός), white, and *spílos* (σπίλος), mark or spot, referring to medial white spot on snout

Photonectes litvinovi **Prokofiev 2014** in memory of Prokofiev's comrade, ichthyologist Fedor Fedorovich Litvinov (1954–2011)

Photonectes mirabilis **Parr 1927** Latin for wonderful or strange, presumably referring to the "peculiar development of luminous tissue in the floor of the mouth inside the lower jaw"

Photonectes paxtoni **Flynn & Klepadlo 2012** in honor of American-born Australian ichthyologist John R. Paxton (1938–2023), Australian Museum (Sydney), for his many contributions to the study of mesopelagic fishes and for his encouragement to the authors

Photonectes phyllopogon **Regan & Trewavas 1930** *phýllon* (φύλλον), leaf; *pṓgōn* (πώγων), beard, referring to "leaf-like expansion" on distal appendage of barbel bulb

Photonectes sphaerolampas **Prokofiev & Klepadlo 2019** *sphaero-*, from *sphaī́ra* (σφαῖρα), ball; *lampás* (λαμπάς), lamp, referring to characteristic shape of the bulb of luminous mental barbel

Photonectes uncinatus **Prokofiev 2015** Latin for barbed or hooked, referring to its very short barbel, hooked at the top

Photonectes venetaenia **Prokofiev 2016** *venetus* (L.), blue; *taenia* (L.), from *tainía* (ταινία), band or ribbon, referring to stripes of blue luminous tissue on body

Photonectes waitti **Flynn & Klepadlo 2012** in honor of American businessman and philanthropist Theodore (Ted) Waitt (b. 1963), founder of the Waitt Family Foundation and the Waitt Institute, the latter of which sponsored and directed the expedition of the research vessel *Seward Johnson* to the equatorial western Pacific Ocean, during which type was collected

Subgenus *Trachinostomias*

Parr 1927

etymology not explained, presumably *trachýs* (τραχύς), jagged or rough, perhaps referring to thick, black skin covering anal and dorsal fins of *P. margarita*; *Stomias*, type genus of family

Photonectes filipendulus **Prokofiev 2019** *filis* (scientific Neo-Latin), thread-like or filiform; *pendulus* (L.), hanging down, referring to very small and weak (and sometimes possibly missing) pectoral-fin ray compared to rigid ray of *P. margarita*

Photonectes gorodinskii **Prokofiev 2015** in honor of Prokofiev's friend, naturalist-explorer Andrei Aleksandrovich Gorodinskii

Photonectes margarita **(Goode & Bean 1896)** Latin for pearl, referring to "pearl-colored" spot above maxilla

Photonectes munificus **Gibbs 1968** Latin for bountiful, referring to high meristic counts and large body size (371 mm) of holotype

Photonectes parvimanus **Regan & Trewavas 1930** *parvus* (L.), small; *manus* (L.), hand, referring to pectoral fins, which consist of two "minute" rays

Photonectes xenopogon **Prokofiev 2019** *xénos* (ξένος), strange or foreign (i.e., different); *pṓgōn* (πώγων), beard, referring to barbel structure resembling not related members of subgenus *Trachinostomias* but those of *P.* (*Photonectes*) *dinema*

Photostomias goodyeari, holotype, male, 174 mm SL. From: Kenaley, C. P. and K. E. Hartel. 2005. A revision of Atlantic species of *Photostomias* (Teleosei: Stomiidae: Malacosteinae), with a description of a new species. Ichthyological Research 52 (3): 251–263.

Photostomias

Collett 1889

phōtō- (φωτω-), combining form of *phṓs* (φῶς), light, referring to two light-producing postorbital (PO) photophores and/or serial ventral photophores; *Stomias*, type genus of family

***Photostomias atrox* (Alcock 1890)** Latin for savage or fierce, presumably referring to its "enormous" mouth, the cleft as long as the head

***Photostomias goodyeari* Kenaley & Hartel 2005** in honor of Richard Hugo Goodyear (1943–2013), Centre de Ciencias del Mar y Limnologia, Universidad de Panama, for his contributions to the systematics of stomiid fishes

***Photostomias guernei* Collett 1889** in honor of French zoologist and geographer Jules de Guerne (1855–1931), who served for three years as Prince Albert of Monaco's personal zoologist on the research cruises aboard the Prince's yacht *L'Hirondelle*

***Photostomias liemi* Kenaley 2009** in honor of Indonesian-born ichthyologist Karel F. Liem (1935–2009), for over three decades of curation and support of scientists, students, and staff as Curator of Ichthyology and Henry Bryant Bigelow Professor of Ichthyology at the Museum of Comparative Zoology, Harvard University

***Photostomias lucingens* Kenaley 2009** *luci-*, from *lucidus* (L.), bright or shining; *ingens* (L.), of remarkable size, referring to the extreme size of light-producing postorbital (PO) photophores in males

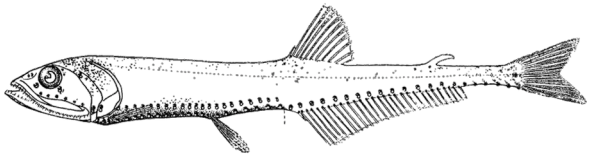
***Photostomias tantillux* Kenaley 2009** *tantillus* (L.), so little or so small; *lux* (L.), light, referring to small size of its light-producing postorbital (PO) photophores

Pollichthys

Grey 1959

Poll, in honor of Belgian ichthyologist Max Poll (1908–1991), who described *P. mauli* in 1953; *ichthýs* (ἰχθύς), fish

***Pollichthys mauli* (Poll 1953)** in honor of German ichthyologist-taxidermist Günther Edmund Maul (1909–1997), Museu Municipal do Funchal (Portugal), who described several deep-sea fishes



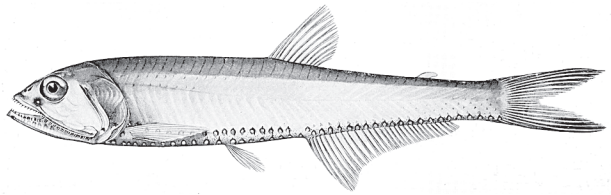
Pollichthys mauli, holotype. From: Poll, M. 1953. Poissons III. Téléostéens Malacoptérygiens. Résultats Scientifiques. Expédition Océanographique Belge dans les Eaux Côtières Africaines de l'Atlantique Sud (1948-1949). Bruxelles. 4 (2): 1–258, Pls. 1–8.

Polymetme

McCulloch 1926

polý (πολύ), many; *metme*, etymology not explained, perhaps derived from *méteimi* (μέτειμι), to include or be among, if so, allusion not evident; one possibility: McCulloch described the genus in Gonostomatidae, thought to include some of the most abundant vertebrate genera in the world (although McCulloch did not mention abundance of *P. illustris*)

***Polymetme andriashevi* Parin & Borodulina 1990** in honor of the "outstanding" (translation) Russian ichthyologist Anatoly Petrovich Andriashev (1910–2009), on the occasion of his 80th birthday



Polymetme illustris. From: McCulloch, A. R. 1926. Report on some fishes obtained by the F. I. S. "Endeavour" on the coasts of Queensland, New South Wales, Victoria, Tasmania, South and South-Western Australia. Part V. Biological Results Endeavour 5 (4): 157–216, Pls. 43–56.

***Polymetme corythaeola* (Alcock 1898)** *korythaíolos* (κορυθαίολος), with quivering helmet, possibly referring to how "whole crown of head (from the snout to the occiput) appears to have been luminous"

***Polymetme elongata* (Matsubara 1938)** Latin for prolonged, referring to its more elongate body compared with *P. illustris*

***Polymetme illustris* McCulloch 1926** Latin for lighted up, light or lustrous, presumably referring to numerous photophores on lower sides of body

***Polymetme surugaensis* (Matsubara 1943)** *-ensis*, Latin suffix denoting place: Suruga Bay, Sea of Japan, where type locality (Heta) is situated

***Polymetme thaeocoryla* Parin & Borodulina 1990** anagram of the specific name of *P. corythaeola*, its closest relative

Rhadinesthes

Regan & Trewavas 1929

rhadinós (ῥαδινός), slender, lithe or tapering; *esthes*, suffix referring to *Astronesthes*, i.e., a "much more elongate" genus compared with others in the subfamily

***Rhadinesthes decimus* (Zugmayer 1911)** Latin for tenth, believed to be the tenth species of its genus (originally *Astronesthes*) known with any certainty at time of description

First-published image of *Rhadinesthes decimus*. Illustration by Emma Kissling. From: Zugmayer, E. 1911. Poissons provenant des campagnes du yacht *Princesse-Alice* (1901-1910). Résultats des campagnes scientifiques accomplies sur son yacht par Albert 1er Monaco. Fasc. 35: 1–174, Pls. 1–6.

Stomias

Cuvier 1816

stomías (στομίας), a hard-mouthed horse but often used for any large-mouthed animall, referring to mouth cleft of *S. boa* "almost to the gills" (translation)

***Stomias affinis* Günther 1887** Latin for related, presumably referring to its similarity to *S. boa*

***Stomias atriventer* Garman 1899** *atri-*, rom *ater* (L.), black; *venter* (L.), belly, referring to its black belly

***Stomias boa* (Risso 1810)** Latin for a large serpent, described as having "the head of a reptile on the body of a pike" (translation)

> ***Stomias boa ferox* Reinhardt 1842** Latin for fierce, allusion not explained, probably referring to ferocious appearance of its mouth and sharp fangs

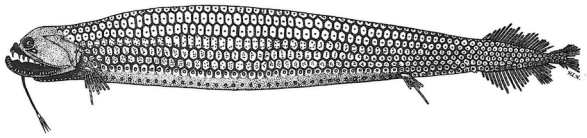
***Stomias brevibarbatus* Ege 1918** *brevis* (L.), short; *barbatus* (L.), bearded, referring to its short barbel, just 3.5 mm

***Stomias colubrinus* Garman 1899** Latin for snake-like, referring to its long, slender body (a characteristic of the genus)

***Stomias danae* Ege 1933** in honor of the Danish fishery research vessel *Dana*, which collected holotype

***Stomias gracilis* Garman 1899** Latin for thin or slender, presumably referring to its long, slender body (a characteristic of the genus)

***Stomias lampropeltis* Gibbs 1969** named for *Lampropeltis*, a genus of



Stomias lampropeltis, female. Illustration by Howard E. Hamman. From: Gibbs, R. H., Jr. 1969. Taxonomy, sexual dimorphism, vertical distribution, and evolutionary zoogeography of the bathypelagic fish genus *Stomias* (family Stomiatidae).Smithsonian Contributions to Zoology 31: 1–25.

colubrid snakes, presumably referring to its snake-like appearance (a characteristic of the genus)

***Stomias longibarbatus* (Brauer 1902)** *longus* (L.), long; *barbatus* (L.), bearded, referring to long barbel, seven times length of head and >⅓ of body length

***Stomias nebulosus* Alcock 1889** Latin for cloudy, presumably referring to a "salient white line" on abdomen, "which is resolved by the lens [of magnifying glass] into a linear cloud of thick-set white specks"

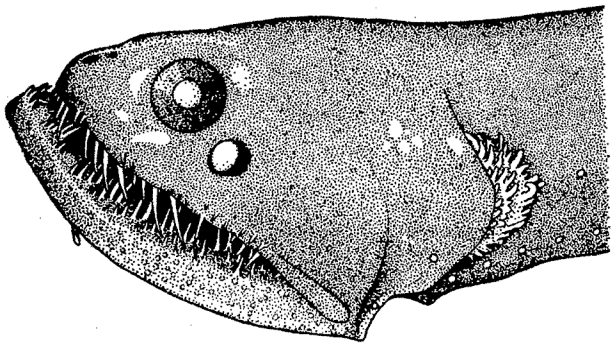
***Stomias pacificus* (Fedorov & Mel'chikova 1971)** *-icus* (L.), belonging to: first species of *Macrostomias* (genus at time of description, now a synonym of *Stomias*) known from the Pacific Ocean

Tactostoma

Bolin 1939

tacto-, from *taktos* (τακτός), ordered or arranged; *stóma* (στόμα), mouth, referring to teeth "arranged in linear groups" with each series "progressively increasing in length posteriorly"

***Tactostoma macropus* Bolin 1939** *makrós* (μακρός), long or large; *pus*, from *poús* (πούς), foot (homologous to the ventral fins), referring to its "strikingly increased number" (10) of ventral-fin rays



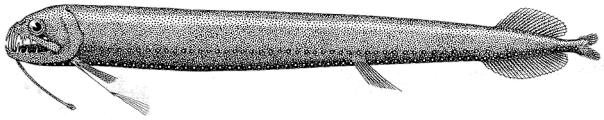
Tactostoma macropus, holotype, 71 mm SL. From: Bolin, R. L. 1939. A new stomiatoid fish from California. Copeia 1939 (1): 39–41.

Thysanactis

Regan & Trewavas 1930

thýsanos (θύσανος), tassel or fringe; *aktís* (ἀκτίς), ray, referring to isolated and produced pectoral-fin ray, with a "tassel of 5 or 6 long unpigmented filaments"

***Thysanactis dentex* Regan & Trewavas 1930** from *dens* (L.), tooth, referring to long anterior fangs on both upper and lower jaws



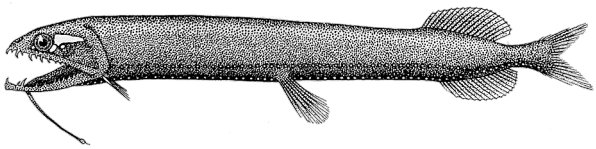
Thysanactis dentex. See *Chirostomias pliopterus* caption for source.

Trigonolampa

Regan & Trewavas 1930

trígōnos (τρίγωνος), triangular; *lampás* (λαμπάς), lamp, referring to large triangular luminous patch of skin extending backwards from eye

***Trigonolampa miriceps* Regan & Trewavas 1930** *mirus* (L.), wonderful or amazing; *-ceps* (Neo-Latin) headed, presumably referring to large luminous patch of skin on head behind eye



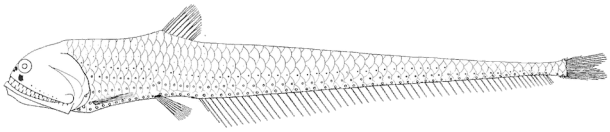
Trigonolampa miriceps. See *Chirostomias pliopterus* caption for source.

Triplophos

Brauer 1902

triplo (L.), threefold; *phós* (φῶς), light, referring to triple series of phosphorescent organs that run along the sides

***Triplophos hemingi* (McArdle 1901)** in honor of Thomas Henry Heming (1856–?), Commander of the Royal Indian Marine Survey steamer *Investigator*, which collected holotype, for his interest in and the "trouble he has invariably taken" during the vessel's zoological work



First-published image of *Triplophos hemingi* (as *T. elongatus*, a junior synonym). From: Brauer, A. 1906. Die Tiefsee-Fische. I. Systematischer Teil. *In*: C. Chun. Wissenschaftl. Ergebnisse der deutschen Tiefsee-Expedition "Valdivia," 1898-99. Jena. v. 15: 1–432, Pls. 1–18.

Vinciguerria

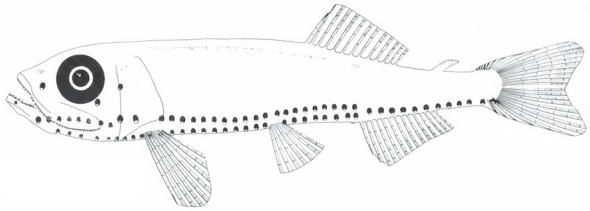
Jordan & Evermann 1896

-ia (L. suffix), belonging to: Italian physician-ichthyologist Decio Vinciguerra (1856–1934), "director of the Acquario Romano, and one of the most active and scholarly of the naturalists of Italy"

***Vinciguerria attenuata* (Cocco 1838)** Latin for drawn-out or tapered, referring to its thin, elongate body

***Vinciguerria lucetius* (Garman 1899)** named for Lucetius (also known as Lucerius), the giver of light in Roman mythology, referring to photophores on head and two lateral rows of pearl-like photophores on underside of body [often misspelled *lucetia*]

***Vinciguerria mabahiss* Johnson & Feltes 1984** named for the Egyptian research ship *Mabahiss*, "for her captain and crew, for the scientists aboard, for the organizing committee and supporters, and for scientists serving as authors of the 11 volumes (November 1935—May 1967) issued as Scientific Reports of the John Murray Expedition 1933-1934" to the Red Sea, where this species occurs



Vinciguerria mabahiss, holotype, 30.5 mm SL. Illustration by Zbigniew Jastrebski. From: Johnson, R. K. and R. M. Feltes. 1984. A new species of *Vinciguerria* (Salmoniformes: Photichthyidae) from the Red Sea and Gulf of Aqaba, with comments on the depauperacy of the Red Sea mesopelagic fish fauna. Fieldiana Zoology (New Series) 22: i–vi + 1–35.

***Vinciguerria nimbaria* (Jordan & Williams 1895)** *-ia* (L. suffix), belonging to: *nimbus* (L.), rain storm, referring to how type specimens "were cast up in a storm and thrown by the waves on the deck of a vessel coming in from Australia" (somewhere northeast of Hawaii, actual type locality in the central Pacific not known)

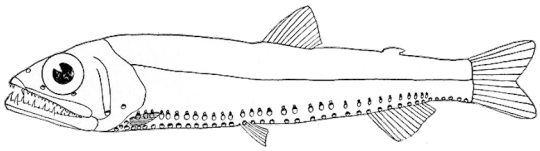
***Vinciguerria poweriae* (Cocco 1838)** in honor of marine biologist Jeanne Villepreux-Power (1794–1871, also known as Jeanette Power), Cocco's friend and colleague [see essay next page]

Woodsia

Grey 1959

-ia (L. suffix), belonging to: Loren P. Woods (1914–1979), Curator of Fishes, Chicago Natural History Museum, where Grey worked

***Woodsia meyerwaardeni* Krefft 1973** in honor of Paul-Friedrich Meyer-



Woodsia nonsuchae, holotype, 89 mm SL. From: Beebe, W. 1932. Nineteen new species and four post-larval deep-sea fish. Zoologica, Scientific Contributions of the New York Zoological Society 13 (4): 47–107.

Waarden (1902–1975), Executive Director, Bundesforschungsanstalt für Fischerei (Federal Research Centre for Fisheries), on the occasion of his 70th birthday, and for his contribution to the publication of Krefft's series of papers on fishes collected during research cruises of the *Walther Herwig* in South America

***Woodsia nonsuchae* (Beebe 1932)** of Nonsuch Island, Bermuda, near where holotype was collected at a depth of 600 fathom

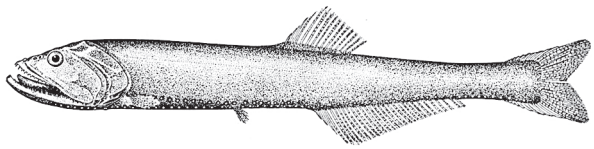
Yarrella

Goode & Bean 1896

-*ella* (L.), diminutive connoting endearment: named for English zoologist William Yarrell (1784–1856), whose A *History of British Fishes* (1835–36) is cited three times in Goode and Bean's monograph

***Yarrella argenteola* (Garman 1899)** diminutive of *argenteus* (L.), silver, i.e., somewhat silvery, presumably referring to silvery coloration on cheeks, eyes and sides and/or skin below the scales "more or less of silver color"

***Yarrella blackfordi* Goode & Bean 1896** in honor of E. G. Blackford, president of the board of fish commissioners of the State of New York (USA), for "services in the promotion of ichthyological studies"



Yarrella blackfordi, holotype. Illustration by A. H. Baldwin. From: Goode, G. B. and T. H. Bean. 1896. Oceanic ichthyology, a treatise on the deep-sea and pelagic fishes of the world, based chiefly upon the collections made by the steamers Blake, Albatross, and Fish Hawk in the northwestern Atlantic, with an atlas containing 417 figures. Special Bulletin U. S. National Museum No. 2: Text: i–xxxv + 1–26 + 1–553, Atlas: i–xxiii, 1–26, 123 pls.

Vinciguerria poweriae and the first aquarium

Every biologist who has studied aquatic animals in an aquarium — indeed, every home aquarist — has this woman to thank.

Born in France, Jeanne Villepreux-Power (1794-1871), was a seamstress who decided to turn her fascination for marine creatures into her career. Entirely self-taught, she became a world authority on mollusks, argonauts and fossil shells. She was the first person to demonstrate that the octopus produced its own shell, rather than acquiring it from a different organism the way a hermit crab does. And she created what is believed to be the first aquarium in 1832.

In addition, Villepreux-Power contributed to the field of aquaculture with the idea that young fish could be raised in submerged cages until big enough to survive or avoid predators and be reintroduced to the wild. This is the basic idea behind the modern-day fish hatchery.

In 1843, a storm sunk a cargo ship that was transporting nearly all of Villepreux-Power's research, equipment, work and drawings. Twenty-five years of study was lost at sea. While she continued to write, she discontinued her research forever.

When Italian ichthyologist and pharmacist Anastasio Cocco (1799-1854) named *Vinciguerria* (originally *Gonostomus*) *poweriae*, he described Villepreux-Power as both a colleague and friend. At that time, naming a plant or animals after a woman was a rare honor since men dominated science and academia. In fact, Villepreux-Power is the first (non-mythological) woman to be honored in the name of a fish.

Jeanne Villepreux-Power, photographed in 1861 by André-Adolphe-Eugène Disdéri.

A century-and-a-half later, in 1997, Villepreux-Power's name was given to a crater on Venus, making her one of the very few humans whose whose eponym graces two different worlds.