

Order ANGUILLIFORMES

Snake Eels

Family **OPHICHTHIDAE**

Subfamily **OPHICHTHINAE** Günther 1870



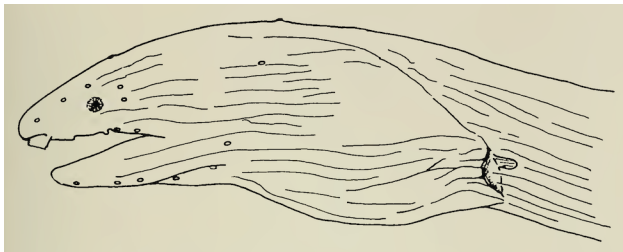
*Apterichtus hatoakai*, holotype, 478.5 mm TL. Photograph by Kiyotaka Hatooka. From: Hibino, Y., J.-Y. Shibata and S. Kimura. 2014. Description of a new snake eel, *Apterichtus hatoakai* sp. nov. (Anguilliformes: Ophichthidae), from the Pacific coast of Japan. Ichthyological Research 61 (4): 317–321.

**Allips**

McCosker 1972

*állos* (Gr. ἄλλος), other or another; *ips* (Gr. ἵψ), a kind of worm, i.e., another worm-shaped eel like *Evipis*, described in the same paper

***Allips concolor* McCosker 1972** Latin for colored uniformly, referring to its uniform brown color in isopropanol



*Allips concolor*, holotype, 375 mm TL. Illustration by Jean-Jacques Vayne. From: McCosker, J. E. 1972. Two new genera and two new species of western Pacific snake-eels (Apodes: Ophichthidae). Proceedings of the California Academy of Sciences (Series 4) 9 (10): 111–119.

**Aplatophis**

Böhlke 1956

*áplatos* (Gr. ἀπλατος), unapproachable, always with a notion of terrible or monstrous, referring to fearsome appearance of large mouth and “extremely highly developed” dentition; *óphis* (Gr. ὄφις), serpent, conventional termination for generic names of snake eels, referring to their snake-like shape

***Aplatophis chauliodus* Böhlke 1956** named for the stomiid genus *Chauliodus*, referring to the prominent, tusky teeth that both genera feature, from *chauliodōn* (Gr. χαυλιόδων), having prominent teeth



*Aplatophis zorro*, holotype, 1039 mm TL. From: McCosker, J. E. and D. R. Robertson. 2001. *Aplatophis zorro*, a new species of eastern Pacific snake-eel, with comments on New World ophichthid distributions (Anguilliformes: Ophichthidae). Revista de Biología Tropical 49 (Suppl. 1): 13–19.

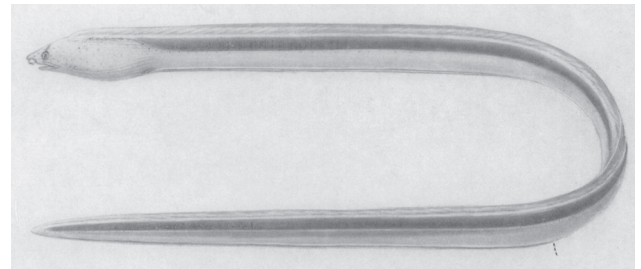
***Aplatophis zorro* McCosker & Robertson 2001** “for the remarkable coloration of the pore pattern along the face, reminiscent of the slash mark of the swordsman Zorro”

**Aprognathodon**

Böhlke 1967

*α-*, Latinized Greek prefixed particle from ἄ, i.e., without; *pro-* (L.), in front of; *gnáthos* (Gr. γνάθος), jaw; *odon*, Latinized and grammatically adjusted from the Greek nominative ὀδούς (*odoús*), tooth, referring to lack of anterior teeth in upper jaw

***Aprognathodon platyventris* Böhlke 1967** *platýs* (Gr. πλατύς), flat; *ventrls* (L.), genitive of *venter*, belly, referring to flattened pre-anal region



*Aprognathodon platyventris*, holotype, 233.5 mm TL. Illustration by Steven P. Gigliotti. From: Böhlke, J. E. 1967. The descriptions of three new eels from the tropical west Atlantic. Proceedings of the Academy of Natural Sciences of Philadelphia 118 (4): 91–108.

**Apterichtus**

Duméril 1806

*α-*, Latinized Greek prefixed particle from ἄ, i.e., without, and *pterón* (Gr. πτερόν), fin, referring to absence of fins; *ichthus*, variant spelling of *ichthýs* (Gr. ἰχθύς), fish

***Apterichtus anguiformis* (Peters 1877)** *Anguis*, slowworm (snake-like legless lizard) genus; *formis*, Neo-Latin scientific adjective of *forma* (L.), shape or form, referring to its elongate, worm-like body

***Apterichtus ansp* (Böhlke 1968)** abbreviation for the Academy of Natural Sciences of Philadelphia, where Böhlke worked and where holotype is housed

***Apterichtus australis* McCosker & Randall 2005** Latin for southern, referring to its occurrence in the South Pacific

***Apterichtus caecus* (Linnaeus 1758)** Latin for blind, referring to its small eyes under skin, which Linnaeus said were incapable of sight (“*Oculus nullus video*”)

***Apterichtus dunalilai* McCosker & Hibino 2015** Fijian word (eel is from Vanuatu and Fiji) for “small eel,” referring to its size (up to 289 mm)

***Apterichtus equatorialis* (Myers & Wade 1941)** Latin for equatorial, referring to type locality north of Barrington Island, Galapagos Islands, near the equator

***Apterichtus flavicaudus* (Snyder 1904) *flavus* (L.), yellow; *caudus* (L.), tail,** referring to “lemon yellow” color on posterior half of body in life

***Apterichtus gracilis* (Kaup 1856)** Latin for thin or slender, “thinner and more elongated” (translation) than *Ichthyapus acutirostris*

***Apterichtus hatookai* Hibino, Shibata & Kimura 2014** in honor of Kiyotaka Hatooka, ichthyological curator, Osaka Museum of Natural History, for his contribution to the taxonomy of Japanese anguilliform fishes

***Apterichtus jeffwilliamsi* McCosker & Hibino 2015** in honor of ichthyologist Jeffrey T. Williams, U.S. National Museum of Natural History, who collected holotype

***Apterichtus kendalli* (Gilbert 1891)** in honor of physician William C. Kendall (1861–1939), naturalist aboard the U.S. Fish Commission schooner *Grampus*, from which holotype was collected

***Apterichtus klazingai* (Weber 1913)** in honor of M. D. Klazinga, the brave (“vaillant”) chief mechanical officer of the *Siboga*, to whom the expedition, which collected holotype, owes much

***Apterichtus malabar* McCosker & Hibino 2015** named for Malabar, New South Wales, Australia, type locality

***Apterichtus monodi* (Roux 1966)** in honor of French naturalist and explorer Théodore Monod (1902–2000), founder and director of Institut Français d’Afrique Noire (now Institut Fondamental d’Afrique Noire), who provided holotype

***Apterichtus moseri* (Jordan & Snyder 1901)** in honor of Jefferson Franklin Moser (1848–1934), U.S. Navy, for his “valued services to ichthyology” as commander of the U.S. Fish Commission steamer *Albatross*, from which holotype was collected

***Apterichtus mysis* McCosker & Hibino 2015** in honor of Mysi Hoang, Curatorial and Administrative Assistant, Department of Ichthyology, California Academy of Sciences, for her many contributions to ichthyology [a noun in apposition, without the matronymic “*ae*”]

***Apterichtus nariculus* McCosker & Hibino 2015** diminutive of *naris* (L.), nostril, referring to its minute anterior nostrils

***Apterichtus orientalis* Machida & Ohta 1994** Latin for eastern, referring to its type locality in the Far East (Japan)

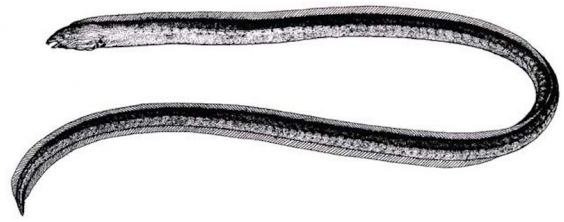
***Apterichtus succinus* Hibino, McCosker & Kimura 2016** adjective of *succinum* (L.), amber, referring to its coloration and shape of head and nape markings (vivid reddish oval or circular spots)

## ***Bascanichthys***

**Jordan & Davis 1891**

*Bascanion* (=Coluber), black snake genus, “which the body much resembles” per Jordan & Evermann (1896)<sup>1</sup>; from *báskanos* (Gr. βάσκανος), malicious; *ichthýs* (Gr. ἰχθύς), fish

***Bascanichthys bascanium* (Jordan 1884) -ium,** Latin adjectival suffix: *Bascanion* (=Coluber), black snake genus, “which the body much resembles” per Jordan & Evermann (1896)<sup>1</sup>; from *báskanos* (Gr. βάσκανος), malicious



*Bascanichthys bascanoides*, holotype, 762 mm TL. Illustration by K. Kimoto. From: Osburn, R. C. and J. T. Nichols. 1916. Shore fishes collected by the “Albatross” expedition in Lower California, with descriptions of new species. Bulletin of the American Museum of Natural History 35 (16): 139–181.

***Bascanichthys bascanoides* Osburn & Nichols 1916 -oides,** Neo-Latin from *eídos* (Gr. εἶδος), form or shape: “Close to” *B. bascanium*

***Bascanichthys ceciliae* Blache & Cadenat 1971** matronym not identified, nor can identity be inferred from available information

***Bascanichthys cylindricus* Meek & Hildebrand 1923** Latin for cylindrical, presumably referring to more terete shape compared to *B. panamensis*

***Bascanichthys deraniyagalai* Menon 1961** in honor of paleontologist-zoologist Paules Edward Pieris Deraniyagala (1899–1976), Director, National Museum, Ceylon (now Sri Lanka)

***Bascanichthys fijiensis* (Seale 1935) -ensis,** Latin suffix denoting place: Suva, Fiji Islands, type locality

***Bascanichthys filaria* (Günther 1872)** etymology not explained but probably from *filum* (L.), thread, and/or *Filaria*, a genus of thread-like nematode worms, referring to its “considerably greater slenderness” compared with *Ophichthys* (=Bascanichthys) *longipinnis* and *O.* (=B.) *kirkii*

***Bascanichthys gaira* Moreno, Acero P. & Grijalba-Bendeck 2016** named for Bahía de Gaira (Gaira Bay), Santa Marta, Colombia, type locality

***Bascanichthys inopinatus* McCosker, Böhlke & Böhlke 1989** Latin for unexpected, as the authors originally considered specimens of this eel to be an aberrant or geographically variant form of *B. paulensis* and “did not initially expect to describe this as a new species”

***Bascanichthys kabeyawan* Hibino & Ho 2022** from *ku-piah-uan*, old Taiwanese name of the type locality (Checheng, Pingtung County, southern Taiwan), territory of aboriginal Paiwan people documented in the Dutch occupation period (1624–1662)

***Bascanichthys kirkii* (Günther 1870)** in honor of John Kirk (1832–1922), Scottish physician, naturalist and explorer, who presented specimens to the British Museum (Natural History), including holotype of this eel

***Bascanichthys longipinnis* (Kner & Steindachner 1867) *longus* (L.), long; *pinnis*,** Neo-Latin adjective of *pinna* (L.), fin, referring to length of dorsal fin, which begins before gill slit

***Bascanichthys myersi* (Herre 1932)** in honor of American ichthyologist George S. Myers (1905–1985), Stanford University, who first noticed what is evidently an undeveloped pectoral fin at posterior margin of each gill opening

***Bascanichthys panamensis* Meek & Hildebrand 1923 -ensis,** Latin suffix denoting place: Panama, type locality

***Bascanichthys paulensis* Storey 1939 -ensis,** Latin suffix denoting place: São Paulo, Brazil, type locality

***Bascanichthys pusillus* Seale 1917** Latin for very small, allusion not explained, perhaps referring to its “slim” body and/or “very minute” pectoral fins

***Bascanichthys ryukyuensis* Hibino, Yamashita & Sakurai 2022 -ensis,** Latin suffix denoting place: Okinawa-jima, Ryukyu Islands, Japan, type locality

***Bascanichthys scuticaris* (Goode & Bean 1880)** Neo-Latin adjective of *scutica* (L.), whip, presumably referring to its elongate, whip-like shape

***Bascanichthys sibogae* (Weber 1913)** of the ship *Siboga* and Indonesian

<sup>1</sup> Jordan, D. S. and B. W. Evermann. 1896. The fishes of North and Middle America: a descriptive catalogue of the species of fish-like vertebrates found in the waters of North America, north of the Isthmus of Panama. Part I. Bulletin of the United States National Museum No. 47: i–ix + 1–1240.





*Brachysomophis porphyreus*. From: Temminck, C. J. and H. Schlegel. 1846. Pisces. In: Siebold, P. F. de (ed.). Fauna Japonica. Lugduni Batavorum [Leiden] (A. Arnz et soc.). Parts 10–14: 173–269.

expedition (1898–1899) of the same name, during which holotype was collected

### *Brachysomophis*

Kaup 1856

*brachys* (Gr. βραχύς), short, and *sōma* (Gr. σῶμα), body, allusion not explained, perhaps referring to moderately elongate body of *B. horridus* (= *crocodilinus*) compared with more elongate body of most ophichthines; *ōphis* (Gr. ὄφις), serpent, conventional termination for generic names of snake eels, referring to their snake-like shape

*Brachysomophis atlanticus* Blache & Saldanha 1972 *-icus* (L.), belonging to: Atlantic Ocean, this species representing the first Atlantic occurrence of a largely Pacific genus

*Brachysomophis cirrocheilos* (Bleeker 1857) *cirrus* (L.), tuft of hair or fringe; *cheilos* (Gr. χεῖλος), lip, referring to numerous prominent barbels on lips

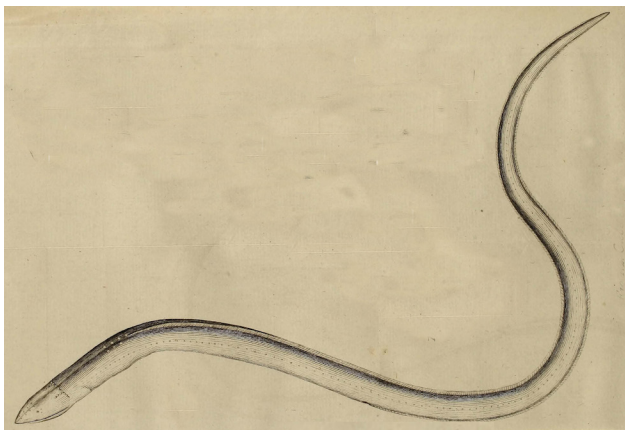
*Brachysomophis crocodilinus* (Bennett 1833) *-inus*, Latin adjectival suffix, i.e., crocodilian, referring to its imposing long jaws, which give it the countenance of a crocodile

*Brachysomophis henshawi* Jordan & Snyder 1904 in honor of American ornithologist-ethnologist Henry W. Henshaw (1850–1930) of Hilo, Hawai‘i, to whom the authors are “indebted for several rare specimens”

*Brachysomophis longipinnis* McCosker & Randall 2001 *longus* (L.), long; *pinnis*, Neo-Latin adjective of *pinna* (L.), fin, referring to its elongate pectoral fins

*Brachysomophis porphyreus* (Temminck & Schlegel 1846) Latinization of the Greek *porphyrē* (πορφύρη), purple or purplish, referring to its purple-brown dorsal coloration in life

*Brachysomophis umbonis* McCosker & Randall 2001 *-is*, Latin genitive



*Caecula pterygera*. From: Vahl, M. 1794. Beskrivelse af en nye fiske-slaegt, *Caecula*. Skrifter af Naturhistorie-Selskabet Kjøbenhavn 3 (2): 149–156, Pl. 13.

singular of: *umbo* (L.), rounded protuberance, referring to “notable” lateral projection of its cheeks

### *Caecula*

Vahl 1794

diminutive of *caecus* (L.), blind, referring to skin-covered eyes, which are “so small that they are very hard to find in dead specimens” and “might easily be interpreted as pores” (translation)

*Caecula pterygera* Vahl 1794 *pteryx* (Gr. πτέρυξ), wing or fin; *-gera*, Latin suffix meaning to bear or carry, referring to presence of dorsal and anal fins compared with their absence on *C. apterygia* (= *Apterichtus caecus*), described in the same paper

### *Callechelys*

Kaup 1856

*kállos* (Gr. κάλλος), beauty, presumably referring to “handsome” (translation) appearance of *C. guichenoti* (= *marmorata*); *énychelys* (Gr. ἔνυχελος), eel

*Callechelys bilinearis* Kanazawa 1952 *bi-*, from *bis* (L.), twice; *linearis* (L.), linear, referring to two dark lateral stripes along body

*Callechelys bitaeniata* (Peters 1877) *bi-*, from *bis* (L.), twice; *taeniata* (L.), striped or banded, presumably referring to wide, dark brown stripe running from mid-head to tail, stopping at dorsal fin base below a narrow, pale stripe above base

*Callechelys catostoma* (Schneider 1801) *cato-*, from *katá* (Gr. κατά), beneath, below or under; *stóma* (Gr. στόμα), mouth, referring to its overhanging lower jaw

*Callechelys cliffi* Böhlke & Briggs 1954 in honor of American herpetologist, Frank S. Cliff (1928–2000), who captured holotype when he was a graduate student at Stanford University (J. C. Briggs, pers. comm.)

*Callechelys eristigma* McCosker & Rosenblatt 1972 *eri-* (Gr. ἐρί), much or very; *stigma* (Gr. στίγμα), spot, referring to numerous dark spots on body and dorsal fin

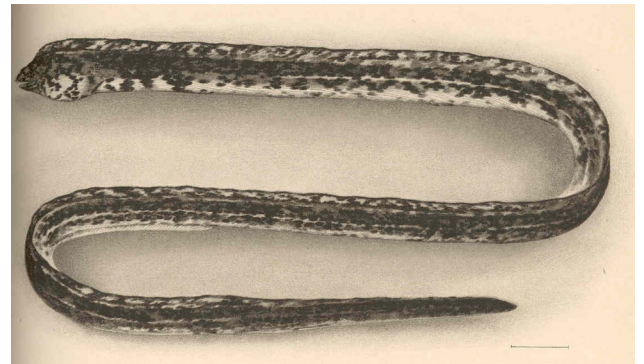
*Callechelys galapagensis* McCosker & Rosenblatt 1972 *-ensis*, Latin suffix denoting place: Galápagos Islands, where it is endemic

*Callechelys guineensis* (Osório 1893) *-ensis*, Latin suffix denoting place: Guinea, former Portuguese colony that included Cape Verde Islands, type locality

*Callechelys kuro* (Kuroda 1947) Japanese for black, probably referring to its purplish-black coloration

*Callechelys leucoptera* (Cadenat 1954) white-finned, from *leukós* (Gr. λευκός), white, and *ptera*, from *pterón* (Gr. πτερόν) or *ptéryx* (πτέρυξ), wing or fin, referring to “creamy white” and/or “very clear” (translation) fins

*Callechelys lutea* Snyder 1904 Latin for yellow, referring to lemon-yellow mottling on upper body and dorsal fin [originally spelled *luteus* but corrected to agree with feminine gender of *Callechelys*]



*Callechelys lutea*, holotype, 83 cm TL. From: Snyder, J. O. 1904. A catalogue of the shore fishes collected by the steamer “Albatross” about the Hawaiian Islands in 1902. Bulletin of the U.S. Fish Commission 22 [for 1902]: 513–538, Pls. 1–13.

***Callechelys maculatus* Chu, Wu & Jin 1981** Latin for spotted, stained or marked, presumably referring to more than 10 indistinct black transverse bands on body

***Callechelys marmorata* (Bleeker 1854)** Latin for marbled, referring to chocolate-to-black spots overlain with large black blotches on body and fins

***Callechelys muraena* Jordan & Evermann 1887** *muraena* (L.), from *mýraina* (μύραινα), Greek name of *Muraena helena* and precursor to “moray,” described as stouter and therefore more like *Muraena* in form and color than *C. (=Basinichthys) scuticaris* and *C. (=B.) bascanium*

***Callechelys papulosa* McCosker 1998** Latin for blistered or pimples, referring to small acne-like round pits on lower jaw, cheeks, nape and dorsal surface of head and branchial basket

***Callechelys randalli* McCosker 1998** in honor of American ichthyologist John E. Randall (1924–2020), Bishop Museum (Honolulu), friend and collector of this and many of the specimens included in McCosker’s revision of the genus

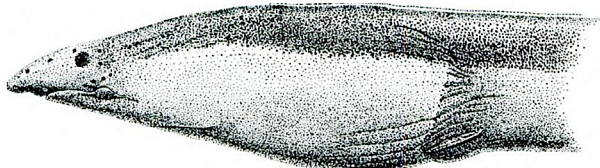
***Callechelys springeri* (Ginsburg 1951)** in honor of American shark biologist Stewart Springer (1906–1991), who obtained holotype from the stomach of shark

### **Caralophia**

**Böhlke 1955**

*cara-*, from *kára* (Gr. κάρα), head; *lophia*, from *lóphos* (Gr. λόφος), mane or crest, i.e., a “back fin,” referring to anterior origin of dorsal fin

***Caralophia loxochila* Böhlke 1955** slant-lipped, from *loxós* (Gr. λοξός), slanting, and *cheilos* (Gr. χείλος), lip, referring to conspicuous flange on either side of lower jaw



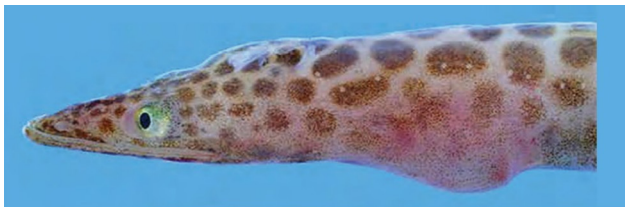
*Caralophia loxochila*, holotype, 317 mm TL. Illustration by Steven P. Gigliotti. From: Böhlke, J. E. 1955. A new genus and species of ophichthid eels from the Bahamas. *Notulae Naturae* (Philadelphia) No. 282: 1–7.

### **Chauligenion**

**McCosker & Okamoto 2016**

*chaúlios* (Gr. χαύλιος), gaping (but here used in the sense of protruding); *généion* (Gr. γένειον), chin, referring to its obtrusive lower jaw

***Chauligenion camelopardalis* McCosker & Okamoto 2016** *camelus* (L.), camel; *pardus* (L.), leopard, together forming ancient name of the giraffe (cameleopard), referring to its giraffe-like coloration



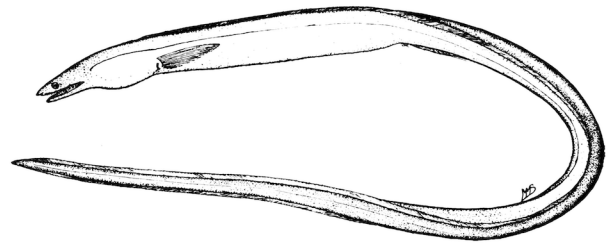
*Chauligenion camelopardalis*, holotype, female, 407 mm TL. From: McCosker, J. E. and M. Okamoto. 2016. *Chauligenion camelopardalis*, a new genus and species of deepwater snake eel (Anguilliformes: Ophichthidae) from the East China Sea. *Proceedings of the California Academy of Sciences* (Series 4) 63 (9): 321–328.

### **Cirrhimuraena**<sup>2</sup>

**Kaup 1856**

*cirrh-*, from *cirrus* (L.), tuft of hair or fringe, referring to short, irregular barbels on edge of upper lip; *muraena* (L.), from *mýraina* (μύραινα), Greek name of *Muraena helena* and precursor to “moray,” allusion not

<sup>2</sup> A subgenus is sometimes recognized: *Jenkinsiella* Jordan & Evermann 1905, *-iella* (L.), diminutive suffix connoting endearment, in honor of Oliver Peebles Jenkins (1850–1935), physiology professor, Stanford University, who described many Hawaiian fishes, including type of this subgenus, *Microdonaphis macgregori* (= *Cirrhimuraena playfairii*).



*Cirrhimuraena inhacae*, holotype, 183 mm TL. Illustration by Margaret Mary Smith. From: Smith, J. L. B. 1962. Sand-dwelling eels of the Western Indian Ocean and the Red Sea. *Ichthyological Bulletin*, Department of Ichthyology, Rhodes University No. 24: 447–466, Pls. 63–68.

explained, possibly used as a standard suffix for an eel

***Cirrhimuraena calamus* (Günther 1870)** Latin for reed, possibly referring to its thin, reed-like shape, with tail twice the length of the body

***Cirrhimuraena cheilopogon* (Bleeker 1860)** *cheilos* (Gr. χείλος), lip; *pōgōn* (Gr. πώγων), beard, referring to numerous barbels on upper lip

***Cirrhimuraena chinensis* Kaup 1856** *-ensis*, Latin suffix denoting place: off the coast of China, where it occurs (also described from Indonesia)

***Cirrhimuraena indica* Mohapatra, Mohanty, Ray, Mishra & Seth 2021** Indian, referring to India, where type locality (Paradip fishing harbor, Odisha, northern Bay of Bengal) is situated

***Cirrhimuraena inhacae* (Smith 1962)** of Inhaca, Mozambique, type locality

***Cirrhimuraena odishaensis* Mohanty, Behera, Patro & Mohapatra 2023** *-ensis*, Latin suffix denoting place: Odisha, India, where type localities (Palur canal and Talasari Fish Landing Centre) are situated

***Cirrhimuraena oliveri* (Seale 1910)** patronym not identified, possibly in honor of physiology professor Oliver Peebles Jenkins (1850–1935), who worked with Seale at Stanford University and described many Hawaiian fishes

***Cirrhimuraena orientalis* Nguyen 1993** Latin for eastern, probably referring to Vietnamese distribution

***Cirrhimuraena paucidens* Herre & Myers 1931** *paucus* (L.), few or little; *dens* (L.), tooth, presumably referring to distinctive “group of a few small teeth” on maxillary plate beneath tip of snout and/or single rows of small teeth each on vomer and mandible

***Cirrhimuraena playfairii* (Günther 1870)** in honor of Lieut.-Col. Robert Lambert Playfair (1828–1899), British Consul to the Sultanate of Oman in Zanzibar (Tanzania), who presented holotype to the British Museum (Natural History)

***Cirrhimuraena tapeinoptera* Bleeker 1863** low-finned, from *tapeinós* (Gr. ταπεινός), low, and *ptera*, from *pterón* (Gr. πτερόν) or *ptéryx* (πτέρυξ), wing or fin, allusion not explained, possibly referring to poorly developed dorsal and anal fins compared with *Ophisurus* (= *Cirrhimuraena*) *cheilopogon* and *O. (=C.) polyodon* (= *chinensis*)

***Cirrhimuraena yuanding* Tang & Zhang 2003** in honor of Zhu Yuang-Ding (1896–1986), “China’s leading authority on ichthyology and fishery science” [presumably a noun in apposition, without the patronymic “i”]

### **Cirriacaecula**

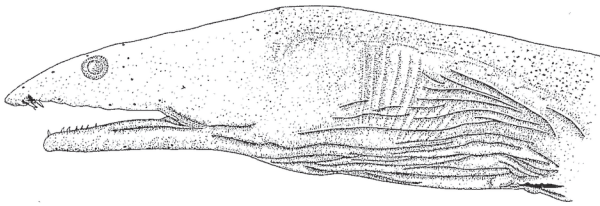
**Schultz 1953**

*cirris* (L.), tuft of hair or fringe, referring to cirri on edges of upper lip; *Caecula*, a closely related genus



*Cirriacaecula johnsoni*, holotype. Illustration by Dorothea B. Schultz. From: Schultz, L. P., E. S. Herald, E. A. Lachner, A. D. Welander and L. P. Woods. 1953. Fishes of the Marshall and Marianas islands. Vol. I. Families from Asymmetronidae through Siganidae. *Bulletin of the United States National Museum* No. 202, v. 1: i–xxxii + 1–685, Pls. 1–74.





*Dalophis obtusirostris*, holotype, 108 mm TL. Illustration by Pierre Opic. From: Blache, J. and M.-L. Bauchot. 1972. Contribution à la connaissance des poissons Anguilliformes de la côte occidentale d'Afrique. 13e note: les genres *Verma*, *Apterichthys*, *Ichthyapus*, *Hemerorhinus*, *Caecula*, *Dalophis* avec la description de deux genres nouveaux (Fam. des Ophichthidae). Bulletin de l'Institut Français d'Afrique Noire (Sér A) Sciences Naturelles 34 (3): 692–773.

***Cirriacacula johnsoni* Schultz 1953** in honor of American oceanographer Martin W. Johnson (1893–1984), Scripps Institution of Oceanography, who participated in Schultz' 1946 field work

***Cirriacacula macdowellii* McCosker & Randall 1993** in honor of Michael McDowell (note Latinization of "Mc" to "Mac"), Australian "tour operator and bon vivant, who has taken us to remote outposts in search of rare specimens" and "diver, explorer and friend"

### Dalophis

Rafinesque 1810

*dal*, meaning unknown, possibly derived from Dalmatia, then a country on the east side of the Adriatic Sea, within range of type, *Dalophis serpa* (= *imberbis*); *óphis* (Gr. ὄφις), serpent, conventional termination for generic names of snake eels, referring to their snake-like shape

***Dalophis bouleengeri* (Blache, Cadenat & Stauch 1970)** in honor of Belgian-born British ichthyologist-herpetologist George A. Boulenger (1858–1937), British Museum (Natural History), who first reported the presence of this eel off the coast of West Africa in 1915 but incorrectly identified it as *Sphagebranchus* (= *Dalophis*) *cephalopeltis*

***Dalophis cephalopeltis* (Bleeker 1863)** *cephalo-*, from *kephalé* (Gr. κεφαλή), head; *peltis*, from *péltē* (Gr. πέλτη), small shield, allusion not explained nor evident; name apparently coined by zoologist Hermann Schlegel (1804–1884) in an unpublished manuscript

***Dalophis imberbis* (Delaroche 1809)** Latin for beardless, referring to absence of cirri on snout

***Dalophis multidentatus* Blache & Bauchot 1972** *multi-* (L.), many; *dentatus* (L.), toothed, presumably referring to more teeth compared with *D. imberbis* and *D. bouleengeri*

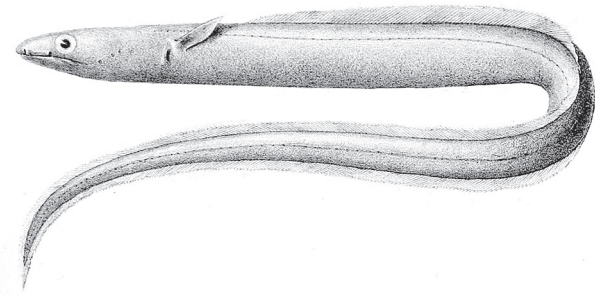
***Dalophis obtusirostris* Blache & Bauchot 1972** *obtusus* (L.), blunt; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, presumably referring to less prominent snout compared with congeners

### Echelus

Rafinesque 1810

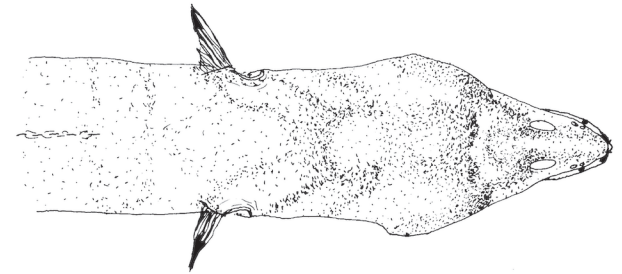
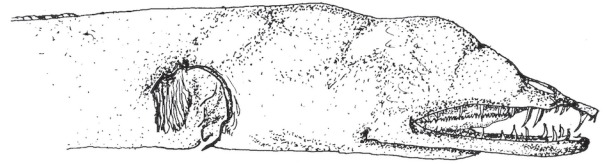
presumably a variant spelling of *échis* (Gr. ἔχιδνα), viper or adder, referring to snake-like appearance of *E. punctatus* (= *myrus*)

***Echelus myrus* (Linnaeus 1758)** historical name for this eel dating to at least Rondelet's *Libri de piscibus marinis* (1554), presumably a Latiniza-



*Echelus pachyrhynchus*. From: 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.

<sup>3</sup> *Múros*, sometimes spelled *smúros* (σμούρος), may be derived from the Indo-European *smér(u)* meaning fat (eels have a high fat content) or greasy (i.e., slippery). See: Frisk, H. 1970. Griechisches etymologisches Wörterbuch. Vol. 2. Heidelberg: Carl Winter Universitätsverlag. 1154 pp.



*Echiophis brunneus*, holotype, 780 mm TL. From: Castro-Aguirre, J. L. and S. Suárez de los Cobos. 1983. *Notophthys brunneus*, nuevo género y especie de la familia Ophichthidae, (Pisces: Anguilliformes) hallado en la Bahía de Acapulco, Guerrero, México. Anales de la Escuela Nacional de Ciencias Biológicas, México v. 27: 113–128.

tion of *múros* (Gr. μῦρος)<sup>3</sup>, with two definitions, a kind of eel and, specifically, a male moray

***Echelus pachyrhynchus* (Vaillant 1888)** thick-snouted, from *pachýs* (Gr. παχύς), thick or stout, and *rhýnchos* (Gr. ῥύγχος), snout, probably referring to its short, rounded and "swollen" or "bulging" (translation) snout

***Echelus polyspondylus* McCosker & Ho 2015** *polý-* (Gr. πολύ), many; *spóndylos* (Gr. σπόνδυλος), vertebra, having more vertebrae than any of its congeners

***Echelus uropterus* (Temminck & Schlegel 1846)** *uro*, from *ourá* (Gr. οὐρά), tail; *pterus*, from *pterón* (Gr. πτερόν) or *ptéryx* (πτέρυξ), fin, referring to confluence of dorsal and anal fins with caudal fin, which, in effect, creates appearance of one long tail fin extending around body

### Echiophis

Kaup 1856

presumably a combination of *échis* (Gr. ἔχιδνα), viper or adder, and *óphis* (Gr. ὄφις), serpent, both words referring to the snake-like appearance of *E. intertinctus*, but name may be a misspelling of *Echiopsis* (*ópsis* [Gr. ὄψις], appearance, i.e., resembling a viper or adder), which Kaup later used

***Echiophis brunneus* (Castro-Aguirre & Suárez de los Cobos 1983)** Medieval Latin for brown, referring to uniformly dark brown coloration

***Echiophis intertinctus* (Richardson 1848)** *inter* (L.), between; *tinctus* (L.), painted or stained, i.e., colored between or within, allusion not explained but probably referring in some way to its spotted color pattern

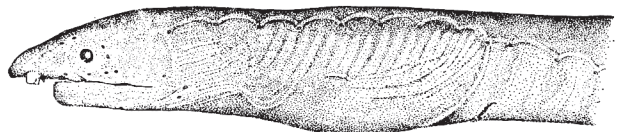
***Echiophis mordax* (Poey 1860)** Latin for biting, allusion not explained, perhaps referring to stronger, larger teeth compared to smaller teeth of two congrid eels Poey said were clearly different: *Conger analis* (= *Ariosoma anale*) and *C. impressus* (= *Ariosoma balearicum*)

***Echiophis punctifer* (Kaup 1859)** *punctum* (L.), spot; *fero* (L.), to have or bear, referring to numerous small brown spots on body

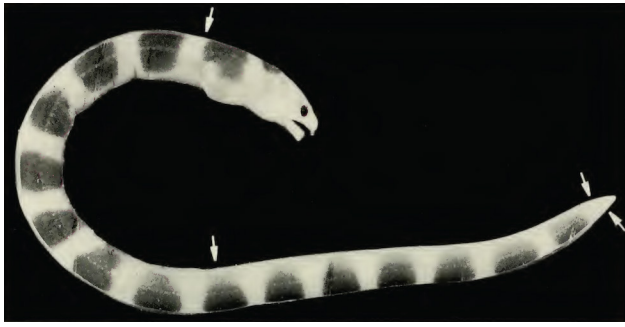
### Ethadophis

Rosenblatt & McCosker 1970

*ethás* (Gr. ἕθας), customary or usual, referring to its "lack of outstanding morphological characters"; *óphis* (Gr. ὄφις), serpent, conventional



*Ethadophis byrnei*, holotype, 508 mm TL. Illustration by Elizabeth Parker. From: Rosenblatt, R. H. and J. E. McCosker. 1970. A key to the genera of the ophichthid eels, with descriptions of two new genera and three new species from the eastern Pacific. Pacific Science 24 (4): 494–505.



*Evips percinctus*, holotype, 125.5 mm TL. Arrows indicate origin and termination of median fins. From: McCosker, J. E. 1972. Two new genera and two new species of western Pacific snake-eels (Apodes: Ophichthidae). Proceedings of the California Academy of Sciences (Series 4) 39 (10): 111–119.

termination for generic names of snake eels, referring to their snake-like shape

***Ethadophis akkistikos* McCosker & Böhlke 1984** *akkistikós* (Gr. ἀκκιστικός), coy, referring to the coy appearance of its face

***Ethadophis byrnei* Rosenblatt & McCosker 1970** in honor of the late John Byrne, a San Diego, California (USA) resident who was walking on the beach during low tide when the holotype stuck its head out of the wet sand; he grabbed it and brought it to the Scripps Institution of Oceanography, where it was identified as a new species (and remains the only known specimen; J. E. McCosker, pers. comm.)

***Ethadophis merenda* Rosenblatt & McCosker 1970** Latin for afternoon snack, referring to type being taken from the stomach of a White Sea Bass *Cynoscion nobilis*

### Evips

McCosker 1972

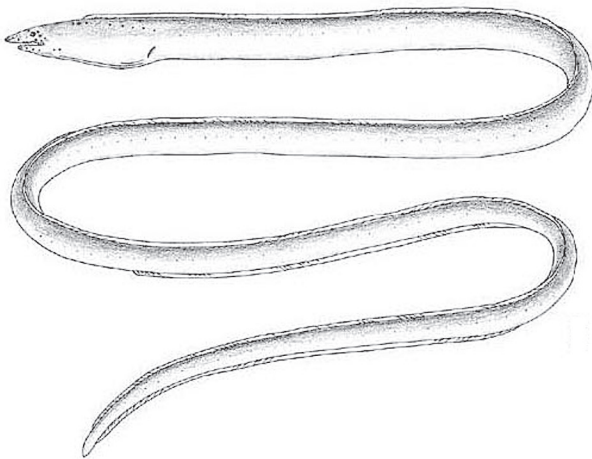
*eú-* (Gr. εὖ), good, Latinized to *ev-* for euphony before a vowel (per McCosker); *íps* (Gr. ἴψ), worm, referring to worm-like appearance of this “charming eel”

***Evips percinctus* McCosker 1972** *per-* (L.), very, continuous or throughout; *cinctus* (L.), belted or girdled, referring to 16 brown saddles on upper half of body

### Gordiichthys

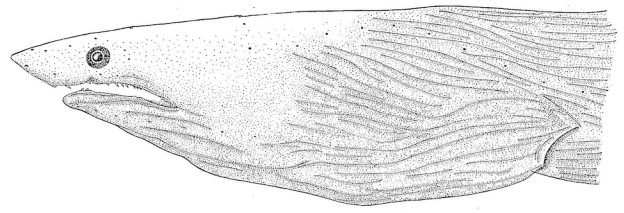
Jordan & Davis 1891

*Gordius*, horsehair worm genus, named after Gordius, king whose complicated (“Gordian”) knot was cut by Alexander, referring to thin, elongate body; *ichthys* (Gr. ἰχθύς), fish



*Gordiichthys combibus*, holotype, 406 mm TL. Illustration by Molly Brown. From: McCosker, J. E. and R. J. Lavenberg. 2001. *Gordiichthys combibus*, a new species of eastern Pacific sand-eel (Anguilliformes: Ophichthidae). Revista de Biología Tropical 49 (Suppl. 1): 7–12.

<sup>4</sup> Knowing that John (“Jack”) Randall and John E. McCosker were frequent collaborators and dive buddies, I asked Dr. McCosker: Did you combibe with Jack Randall and, if so, was that a private inspiration for the name? Here, for the etymological record, is McCosker’s reply: “Yup.”



*Hemerorhinus opici*, holotype, 236 mm TL. Illustration by Pierre Opic, for whom the species is named. From: Blache, J. and M.-L. Bauchot. 1972. Contribution à la connaissance des poissons Anguilliformes de la côte occidentale d’Afrique. 13e note: les genres *Verma*, *Apterichthus*, *Ichthyapus*, *Hemerorhinus*, *Caecula*, *Dalophis* avec la description de deux genres nouveaux (Fam. des Ophichthidae). Bulletin de l’Institut Français d’Afrique Noire (Sér A) Sciences Naturelles 34 (3): 692–773.

***Gordiichthys combibus* McCosker & Lavenberg 2001** from *combibo* (L.), to drink with a companion, referring to the “sibling nature” of this eastern Pacific species to its Atlantic congener *G. randalli*<sup>4</sup>

***Gordiichthys ergodes* McCosker, Böhlke & Böhlke 1989** *ergódēs* (Gr. ἐργώδης), irksome or troublesome, referring to the “difficulties this new species has created” with the authors’ previous concept of generic limits between *Gordiichthys*, *Allips*, *Phaenomonas* and *Ethadophis*

***Gordiichthys irretitus* Jordan & Davis 1891** Latin for entangled or caught in a net, probably referring to partially digested holotype found in the “spewings” of snappers (*Lutjanus aya*)

***Gordiichthys leiby* McCosker & Böhlke 1984** in honor of Mark M. Leiby (b. 1944), Florida Department of Natural Resources, Marine Research Laboratory (St Petersburg), “friend and apodal ichthyologist”

***Gordiichthys randalli* McCosker & Böhlke 1984** in honor of American ichthyologist John E. Randall (1924–2020), Bishop Museum (Honolulu), friend and collector of type specimens

### Hemerorhinus

Weber & de Beaufort 1916

*hēmeros* (Gr. ἡμερος), cultivated; *rhinus*, presumably from *rhinos* (Gr. ῥινός), genitive of *rhís* (ῥίς), snout, allusion not explained, perhaps referring to pointed snout of *H. heyningi* projecting beyond mouth

***Hemerorhinus heyningi* (Weber 1913)** patronym (also spelled *heijnigi*) not identified but clearly in honor of Lieut. Cornelis E. Hoorens van Heyningen, an officer aboard the *Siboga* expedition during which holotype was collected

***Hemerorhinus opici* Blache & Bauchot 1972** in honor of French artist and illustrator Pierre Opic, who provided the illustrations for Blache’s African anguilliform monographs

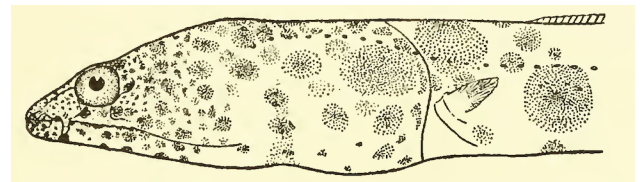
### Herpetoichthys

Kaup 1856

*herpetón* (Gr. ἑρπετόν), creeping animal, reptile or snake, referring to snake-like appearance of *H. regius* and probably of eels in general; *ichthys* (Gr. ἰχθύς), fish

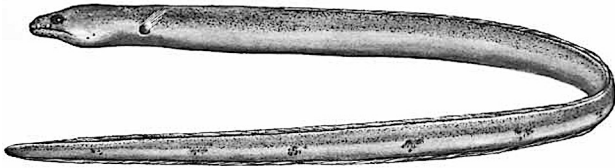
***Herpetoichthys fossatus* (Myers & Wade 1941)** Latin for dug, allusion not explained, perhaps referring to its burrowing behavior in soft-bottom habitats

***Herpetoichthys regius* (Richardson 1848)** Latin for royal, allusion not explained, perhaps referring to distinctive coloration (brown markings on pale background), but since holotype had “been immersed in spirits many years, and many of its markings have doubtless disappeared,” such a presumption can easily be questioned



*Herpetoichthys fossatus*, holotype, 108 mm TL. From: Myers, G. S. and C. B. Wade. 1941. Four new genera and ten new species of eels from the Pacific coast of tropical America. Allan Hancock Pacific Expedition 1932–40, Los Angeles 9 (4): 65–111, Pls. 7–16.





*Hyphalophis devius*, holotype, 286 mm TL. Illustration by Mary H. Fuges. From: McCosker, J. E. and J. E. Böhlke. 1982. Three new genera and two new species of deepwater western Atlantic snake-eels (Pisces: Ophichthidae). Proceedings of the Academy of Natural Sciences of Philadelphia 134: 113–121.

### *Hyphalophis*

McCosker & Böhlke 1982

*hýphalos* (Gr. ὑφαλος), under the sea, referring to “extraordinary” depth of capture (293–366 m) of holotype; *óphis* (Gr. ὄφις), serpent, conventional termination for generic names of snake eels, referring to their snake-like shape

*Hyphalophis devius* McCosker & Böhlke 1982 Latin for off the main way or highway, referring to two unique characteristics: quadriserial rows of maxillary dentition and a lateral line that abruptly arches and abuts lateral line from other side on top of head

### *Ichthyapus*

Brisout de Barneville 1847

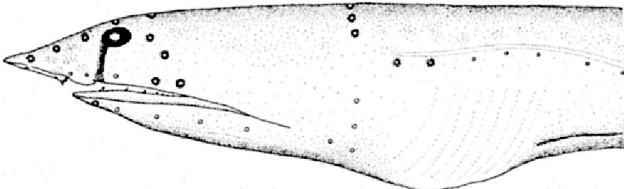
*ichthýs* (Gr. ἰχθύς), fish; *a-*, Latinized Greek prefixed particle from *á*, i.e., without, and *poús* (Gr. ποῦς), foot, referring to finlessness of *I. acutirostris*

*Ichthyapus acuticeps* (Barnard 1923) *acutus* (L.), sharp or pointed; *-ceps* (New Latin), headed, referring to pointed snout and, hence, pointed head

*Ichthyapus acutirostris* Brisout de Barneville 1847 *acutus* (L.), sharp or pointed; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to its pointed snout

*Ichthyapus insularis* McCosker 2004 Latin for of islands, referring to Ascension Island, South Atlantic Ocean, where it appears to be endemic

*Ichthyapus keramanus* (Machida, Hashimoto & Yamakawa 1997) *-anus* (L.), belonging to: south of Kerama Islands, Okinawa, Japan, type locality



*Ichthyapus keramanus*, holotype, 276 mm TL. From: Machida, Y., H. Hashimoto and T. Yamakawa. 1997. *Apterichtus keramanus*, a new snake-eel from Okinawa, southern Japan (Ophichthinae, Ophichthidae). Ichthyological Research 44 (1): 27–33.

*Ichthyapus ophioneus* (Evermann & Marsh 1900) *-eus*, Latin suffix, having the quality of: *óphis* (Gr. ὄφις), serpent, referring to its snake-like appearance

*Ichthyapus platyrhynchus* (Gosline 1951) flat-snouted, from *platýs* (Gr. πλατύς), flat, and *rhýnchos* (Gr. ῥύγχος), snout, referring to how its snout forms a flattened triangle in cross section

*Ichthyapus selachops* (Jordan & Gilbert 1882) *selachos* (Gr. σέλαχος), a cartilaginous fish (i.e., shark or ray); *óps* (Gr. ὤψ), eye or face (i.e., appearance), referring to its “remarkably shark-like” physiognomy, created by nostrils on lower side of snout, which projects over mouth

*Ichthyapus vulturis* (Weber & de Beaufort 1916) named after the Dutch Government Fisheries Investigation ship *Gier* (=vulture), from which holotype was collected

### *Kertomichthys*

McCosker & Böhlke 1982

*kertómios* (Gr. κερτόμιος), mocking or delusive, referring to facial expression (down-turned snout and forward eye position) and the dif-



*Kertomichthys blastorhinos*, holotype, 418 mm TL. From: Kanazawa, R. H. 1963. Two new species of ophichthid eels from the western Atlantic. Proceedings of the Biological Society of Washington 76: 281–287.

ficulty it has caused ichthyologists trying to understand its relationships; *ichthýs* (Gr. ἰχθύς), fish

*Kertomichthys blastorhinos* (Kanazawa 1963) *blastós* (Gr. βλαστός), bud, shoot or sprout; *rhinos* (Gr. ῥινός), genitive of *rhís* (ῥίς), snout, referring to its clavate snout

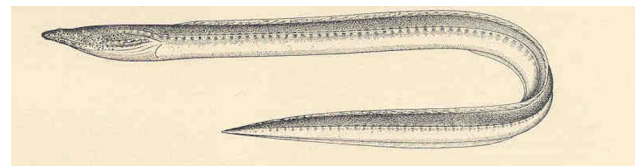
### *Lamnostoma*

Kaup 1856

etymology not explained, presumably from *lámna* (Gr. λάμνα), a voracious fish or shark; *stóma* (Gr. στόμα), mouth, referring to the voracious or shark-like appearance of mouth of *L. pictum* (=orientale)

*Lamnostoma kampeni* (Weber & de Beaufort 1916) in honor of Dutch herpetologist Pieter Nicolaas Van Kampen (1878–1937), who collected holotype

*Lamnostoma mindora* (Jordan & Richardson 1908) named after Mindoro Island, Philippines, type locality



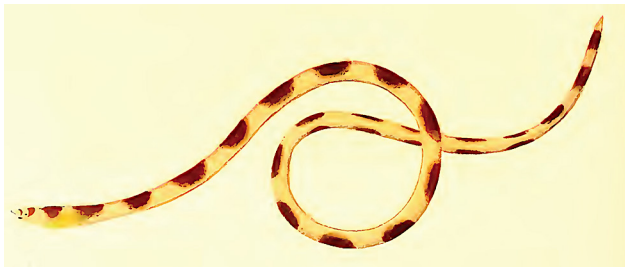
*Lamnostoma mindora*, holotype, 381 mm TL. From: Jordan, D. S. and R. E. Richardson. 1908. Fishes from islands of the Philippine Archipelago. Bulletin of the Bureau of Fisheries 27 (Doc. 640) (for 1907): 233–287.

*Lamnostoma orientale* (McClelland 1844) Latin for eastern, typically the Far East or Orient, probably referring to Coromandel Coast of India, type locality

*Lamnostoma polyophthalmus* (Bleeker 1853) *polý-* (Gr. πολύ), many; *ophthalmós* (Gr. ὀφθαλμός), eye, probably referring to double row of yellow, round spots on head and nape [often spelled as an adjective, *polyophthalmum*]

*Lamnostoma taiwanense* Chiu, Huang & Shao 2018 *-ense*, Latin suffix (neuter) denoting place: known only from Lan-yang River, northeastern Taiwan

*Lamnostoma taylori* (Herre 1923) in honor of American herpetologist Edward H. Taylor (1889–1978), “student of Philippine reptiles and amphibia” (and Chief of Fisheries in the Philippines)



*Leioranus semicinctus*. From: Lay, G. T. and E. T. Bennett. 1839. Fishes. In: F. W. Bechey (ed.). The zoology of Captain Beechey's voyage. London: Henry G. Bohn. i-xii + 1-180 + 45 pl.

### **Leioranus** Bleeker 1853

*leĩos* (Gr. λείος), smooth; *urano-*, from *ouraniskos* (Gr. ούρανίσκος), roof of mouth, referring to toothless vomer

***Leioranus semicinctus* (Lay & Bennett 1839)** *semi-*, from *semis* (L.), a half or moiety; *cinctus* (L.), belted or girdled, referring to “fascia-like patches of dark-brown, which do not surround the body, but are interrupted on the under surface”

***Leioranus versicolor* (Richardson 1848)** Latin for variegated or of various colors, referring to 27 purplish-brown rings, which are further divided more or less completely by narrower white lines or imperfect circles

### **Leptenchelys** Myers & Wade 1941

*leptós* (Gr. λεπτός), fine or thin, referring to its elongate body; *énchelys* (Gr. ἔγχελυς), eel

***Leptenchelys vermiformis* Myers & Wade 1941** *vermis* (L.), worm; *formis* (L.), shape or form, referring to its worm-like shape



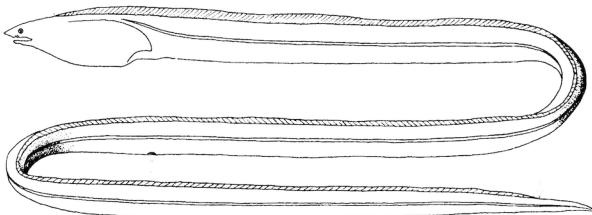
*Leptenchelys vermiformis*, holotype, 115 mm TL. From: Myers, G. S. and C. B. Wade. 1941. Four new genera and ten new species of eels from the Pacific coast of tropical America. Allan Hancock Pacific Expedition 1932-40, Los Angeles 9 (4): 65-111, Pls. 7-16.

### **Letharchus** Goode & Bean 1882

*léthē* (Gr. λήθη), forgetfulness; *archós* (Gr. ἀρχός), anus, referring to lack of anal fin on *L. velifer*

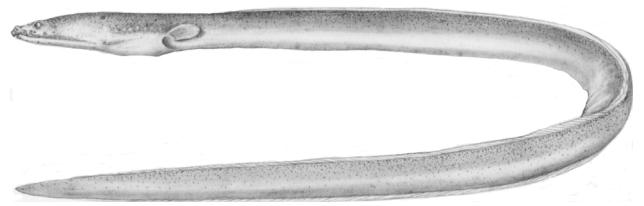
***Letharchus aliculatus* McCosker 1974** *-atus* (L.), provided with: *alicula* (L.), a light-colored upper garment, referring to cream and pale-tan coloration of its body and fins

***Letharchus rosenblatti* McCosker 1974** in honor of American ichthyologist Richard H. Rosenblatt (1930-2014), Scripps Institution of Oceanography, for contributions to the study of apodal fishes and the education of ichthyologists



*Letharchus rosenblatti*, holotype, 240 mm TL. From: McCosker, J. E. 1974. A revision of the ophichthid eel genus *Letharchus*. Copeia 1974 (3): 619-629.

***Letharchus velifer* Goode & Bean 1882** *velum* (L.), sail; *fero* (L.), to have or bear, referring to unusually high dorsal fin, height at nape equaling distance from tip of lower jaw to angle of mouth



*Lethogoleus andersoni*, paratype, 274.4 mm TL. Illustration by Mary H. Fuges. From: McCosker, J. E., and J. E. Böhlke. 1982. Three new genera and two new species of deepwater western Atlantic snake-eels (Pisces: Ophichthidae). Proceedings of the Academy of Natural Sciences of Philadelphia 134: 113-121.

### **Lethogoleus** McCosker & Böhlke 1982

*letho-*, from *léthē* (Gr. λήθη), forgetfulness; *gōleós* (Gr. γωλεός), a hole or pricking, referring to unique absence of several cephalic pores

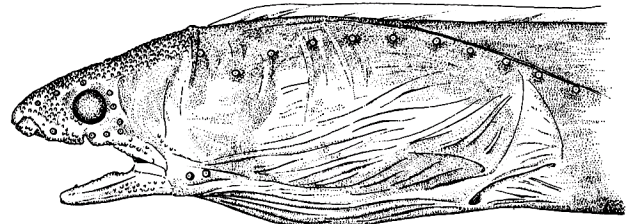
***Lethogoleus andersoni* McCosker & Böhlke 1982** in honor of William D. Anderson, Jr. (b. 1933), Grice Marine Biological Laboratory (Charleston, South Carolina, USA), friend and ichthyologist, who made specimens available to the authors

### **Leuropharus**

Rosenblatt & McCosker 1970

*leurós* (Gr. λευρός), smooth; *pháros* (Gr. φάρος), plow, referring to its toothless vomerine shaft

***Leuropharus lasiops* Rosenblatt & McCosker 1970** *lásios* (Gr. λάσιος), shaggy or bearded; *óps* (Gr. ὄψ), eye or face (i.e., appearance), referring to numerous papillae on its snout and lips

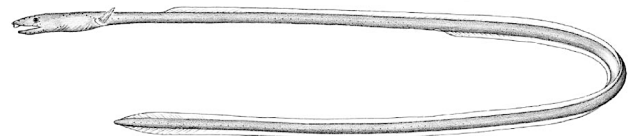


*Leuropharus lasiops*, holotype, 174 mm TL. Illustration by Elizabeth Parker. From: Rosenblatt, R. H. and J. E. McCosker. 1970. A key to the genera of the ophichthid eels, with descriptions of two new genera and three new species from the eastern Pacific. Pacific Science 24 (4): 494-505.

### **Luthulenchelys** McCosker 2007

in honor of Chief Albert John Mvumbi Luthuli (ca. 1898-1967) of KwaZulu-Natal, Africa's first winner of the Nobel Peace Prize and former President of the African National Congress; *énchelys* (Gr. ἔγχελυς), eel

***Luthulenchelys heemstraorum* McCosker 2007** *-orum*, commemorative suffix (L.), plural: in honor of ichthyologists Phillip C. (1941-2019) and Elaine Heemstra, South African Institute for Aquatic Biodiversity, for their “efforts to understand, illustrate, and explain the fishes of the Indian Ocean to scientists and the general public”

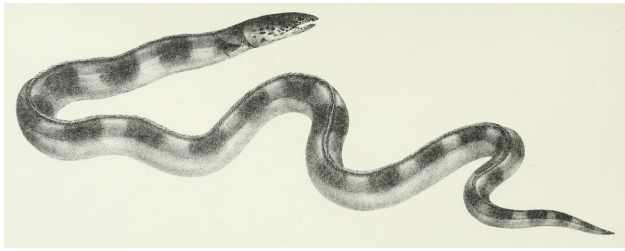


*Luthulenchelys heemstraorum*, holotype, 472 mm TL. Illustration by Beth Herd Guy. From: McCosker, J. E. 2007. *Luthulenchelys heemstraorum*, a new genus and species of snake eel (Anguilliformes: Ophichthidae) from KwaZulu-Natal, with comments on *Ophichthus rutidoderma* (Bleeker, 1853) and its synonyms. Smithiana, Publications in Aquatic Biodiversity, Bulletin No. 7: 3-7.

### **Malvoliophis** Whitley 1934

Malvolio, Lady Olivia's steward in Shakespeare's *Twelfth Night*, referring to banded coloration of *M. pinguis*, suggestive of cross-gartered legs and yellow socks worn by that character;<sup>3</sup> *óphis* (Gr. ὄφις), serpent, conventional termination for generic names of snake eels, referring to their snake-like shape





First-published illustration of *Malvoliophis pinguis*. From: Günther, A. 1873. Reptiles and fishes of the South Sea Islands. In: Brenchley, J. L., Jottings during the cruise of H. M. S. Curaçao among the South Sea Islands in 1865. 1–487, Pls. 1–59.

***Malvoliophis pinguis* (Günther 1872)** Latin for fat, possibly referring to its body being shorter than its tail

### **Myrichthys**

Girard 1859

referring to its affinity to the genus *Myrus* (=Echelus);  
*ichthys* (Gr. ἰχθύς), fish

***Myrichthys aspetocheiros* McCosker & Rosenblatt 1993** *áspetos* (Gr. ἄσπετος), unspeakably great; *cheirós* (Gr. χειρός), genitive of *cheir* (χείρ), hand (homologous to the pectoral fin), which is elongate and longer than snout

***Myrichthys breviceps* (Richardson 1848)** *brevis* (L.), short; *-ceps* (New Latin), headed, “remarkable for its short blunt head”

***Myrichthys colubrinus* (Boddaert 1781)** Latin for snake-like, referring to its extreme similarity to banded sea snakes that occupy shallow coral reefs over much (but not all) of its range

***Myrichthys maculosus* (Cuvier 1816)** Latin for speckled, referring to brown to brownish-black spots on head and body

***Myrichthys magnificus* (Abbott 1860)** Latin for splendid, presumably referring to the attractive appearance of its chocolate-brown spots

***Myrichthys ocellatus* (Lesueur 1825)** Latin for having little eyes (ocelli), referring to eye-like spots (dark with small bright centers) on body

***Myrichthys paleracio* McCosker & Allen 2012** in honor of dive guide and underwater photographer Christopher “Peri” Paleracio, who collected holotype [a noun in apposition, without the patronymic “i”]

***Myrichthys pantostigmus* Jordan & McGregor 1898** *pantós* (Gr. παντός), all, whole or very; *stigmus*, Neo-Latin coinage apparently based on *stigmus* (L.), marked or spotted, referring to numerous large brown to brownish-black spots along sides, at base of dorsal fin, and “covering the whole belly”

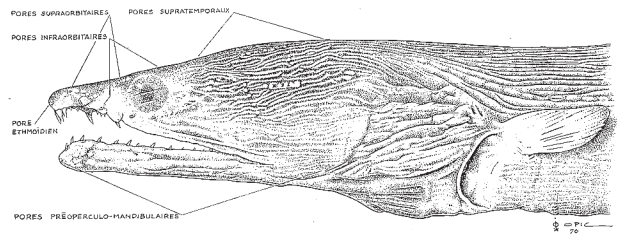
***Myrichthys pardalis* (Valenciennes 1839)** *párdalis* (Gr. πάρδαλις), leopard, presumably referring to brown spots with bright centers on body

***Myrichthys xysturus* (Jordan & Gilbert 1882)** spike-tailed, from *xustón* (Gr. ξυστόν), spike or shaft of spear, and *urus*, from *ourá* (Gr. οὐρά), tail,



*Myrichthys paleracio*, approximately 500 mm TL, underwater photograph, Caban Island, Verde Channel, Luzon, Philippines. Photo by Gerald R. Allen. From: McCosker, J. E. and G. R. Allen. 2012. Description of a new snake eel (Pisces: Ophichthidae: *Myrichthys*) from the Philippines. aqua, International Journal of Ichthyology 18 (1): 35–40 + cover.

<sup>5</sup> Etymology not explained in original description, but Whitley told McCosker in a pers. comm. See: McCosker, J. E. 1977. The osteology, classification, and relationships of the eel family Ophichthidae. Proceedings of the California Academy of Sciences (Series 4) 41 (1): 1–123.



*Mystriophis crosnieri*. Illustration by Pierre Opic. From: Blache, J. 1971. Contribution à la connaissance des Poissons anguilliformes de la côte occidentale d'Afrique. Onzième note: les genres *Mystriophis* et *Echiopsis* (Fam. des Ophichthidae). Bulletin de l'Institut Fondamental d'Afrique Noire (Serie A) Sciences Naturelles 33 (1): 202–226.

referring to pointed tail with sharp tip [sometimes known as *M. tigrinus* Girard 1859, a secondary homonym of *Muraena tigrina* Rüppell 1830 when both are in *Myrichthys*]

### **Mystriophis**

Kaup 1856

*mystrion* (Gr. μυστήριον), diminutive of *mýstron* (μύστρον), spoon, referring to snout shape of *M. rostellatus*, rounded and narrow, like the shape of a spoon; *óphis* (Gr. ὄφις), serpent, conventional termination for generic names of snake eels, referring to their snake-like shape

***Mystriophis crosnieri* Blache 1971** in honor of French carcinologist Alain Crosnier (1930–2021), for his many collections [he initiated many deepwater trawl surveys, see *Dipturus crosnieri*, Rajidae] and “many informed opinions” (translation)

***Mystriophis rostellatus* (Richardson 1848)** Neo-Latin adjective of *rostellum*, diminutive of *rostrum* (L.), snout, i.e., small-beaked, presumably referring to its narrow, rounded snout, like the shape of a spoon

### **Ophichthus**<sup>6</sup>

Ahl 1789

*ophi-*, from *óphis* (Gr. ὄφις), serpent, referring to snake-like appearance of *O. ophis*; *ichthus*, variant spelling of *ichthýos* (Gr. ἰχθύος), fish

***Ophichthus alleni* McCosker 2010** in honor of American-born Australian ichthyologist Gerald R. Allen (b. 1942), Western Australia Museum (Perth), for his “numerous and diverse contributions to the knowledge of fishes of Australia and beyond”

***Ophichthus altipennis* (Kaup 1856)** *altus* (L.), high; *pennis*, Neo-Latin adjective of *penna* (L.), fin, referring to its greatly developed fins, especially its high dorsal fin

***Ophichthus aniptocheilos* McCosker 2010** *ániptos* (Gr. ἀνυπτος), unwashed; *cheilos* (Gr. χείλος), lip, referring to brown speckling along edge of lips

***Ophichthus apachus* McCosker & Rosenblatt 1998** *a-*, Latinized Greek prefixed particle from *á*, i.e., without; *páchos* (Gr. πάχος), thickness, referring to its very slender and elongate body

***Ophichthus aphotistos* McCosker & Chen 2000** *aphótistos* (Gr. ἀφώτιστος), dark or obscure, referring to both black coloration in life (grayish-brown to black in ethanol) and deepwater (700–800 m) habitat

***Ophichthus apicalis* (Anonymous [Bennett] 1830)** Latin for apex or point, referring to how dorsal, anal and caudal fins converge to form a pointed tail

***Ophichthus arneutes* McCosker & Rosenblatt 1998** *arneutés* (Gr. ἀρνευτής), diver, referring to its occurrence at depths of 434–557 m and

<sup>6</sup> Four subgenera (in addition to *Ophichthus*) are recognized by some workers: ***Centrurophis* Kaup 1856**, *centrum* (L.), sharp point, presumably referring to hard caudal tip (sharply pointed in some species, blunt in others), and *óphis* (Gr. ὄφις), serpent, conventional termination for generic names of snake eels, referring to their snake-like appearance; ***Coecilophis* Kaup 1856**, *coecil-*, etymology not explained, perhaps a variant spelling of *caecilian*, the snake-like amphibian, which type species, *C. comphor* (= *O. apicalis*), superficially resembles, and *óphis* (see above); ***Microdonaphis* Kaup 1856**, *micro-*, from *mikrós* (Gr. μικρός), small, and *odon*, Latinized and grammatically adjusted from the Greek nominative *ódoús* (*odóús*), tooth, referring to minute but sharp teeth of *O. altipennis*, and *óphis* (see above); and ***Omachelys* Fowler 1918**, *ómós* (Gr. ὀμός), raw or rough (Fowler said “cruel,”) referring to “savage habits” of *O. cruentifer* (see entry for that species), and *chelys*, short for *énchelys* (Gr. ἔγχελυς), eel.

## The unfairly “cruel” name of *Ophichthus cruentifer*

In 1896, American ichthyologists George Brown Goode (1851-1896) and Tarleton H. Bean (1846-1916) described a new species of snake eel from coastal waters of the western North Atlantic. They named it *Pisodonophis* (now *Ophichthus*) *cruentifer*. They said the specific name means “Sanguinary, cruel; in allusion to its habit of boring into the flesh of living fishes.”

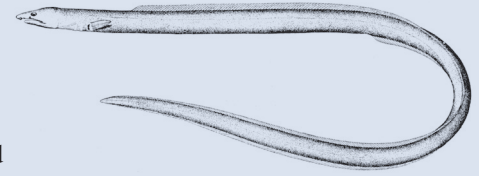
Goode & Bean believed that the eel used its pointed tail to bore into and parasitize living fishes. As confirmation, they cited two specimens of the eel taken from the bodies of fishes caught by anglers.

A half-century later, ichthyologists began finding evidence that rejected Goode & Bean’s claim. In 1953, Charles Breder, Jr., of the American Museum of Natural History (AMNH), reported on a sea bass with a snake eel lodged in its coelom, the body cavity located between the intestinal canal and the body wall. Breder believed the sea bass had swallowed the eel, which then attempted to escape by “perforating the gut [with its sharp bony tail] and backing into the coelomic cavity where it finally expired.” In other words, the eel was trying to bore its way *out* rather than *in*. Breder suspected that Goode & Bean’s eels had died doing the same.

In 1955, Breder’s colleague at AMNH, Vladimir Walters, reviewed other cases of predatory fishes with snake eels stuck inside their bodies. He noted that all of the predators fed on or near the bottom, where snake eels live. In 1976, as part of his Ph.D. dissertation, Charles Wenner (College of William and Mary), reported how captive specimens of *O. cruentifer* used their bony tail to bury themselves tail first in the aquarium substrate. The eel was also observed in the wild, at 250-350 m deep, from the Deep Submersible Research Vehicle *Alvin*. The burrowing behavior was not observed, but the eels were seen with only their heads exposed from the sandy substrate.

In recent years, more cases of “pseudoparasitism” involving snake eels have been reported. In 2011, Isbert et al. reported snake eels in three common pandoras (*Pagellus erythrinus*) from the north-western Mediterranean, two in the stomach and one embedded in the body cavity. In 2020, Barton et al. reported snake eels from the body cavities of ten Australian fish species classified in eight different families, all of them medium to large, opportunistic carnivores, suggesting that the eels were targeted rather than incidentally ingested.

In fairness to Goode and Bean, their belief that *O. cruentifer* bores into the flesh of living fishes may have been influenced by an eel that actually does. In 1879, Theodore Gill described *Simenchelys parasitica*, a deep-sea eel from both the Atlantic and Pacific oceans. Gill reported specimens that had burrowed into the flesh of a halibut. Other accounts verify their boring predatory behavior. In 1992, for example, two *S. parasitica* were discovered inside the heart of a Shortfin Mako Shark *Isurus oxyrinchus*, where they had lived and fed for some time. The eels had apparently burrowed into the shark through the gills or throat, entered the circulatory system, and then made their way to the heart.



*Ophichthus cruentifer*. 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.

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the use of the Johnson Sea-Link submersible to collect holotype

***Ophichthus asakusae* Jordan & Snyder 1901** of the Asakusa Aquarium, Tokyo, Japan, which supplied holotype

***Ophichthus bicolor* McCosker & Ho 2015** *bi-*, from *bis* (L.), twice, i.e., two-colored, referring to yellowish-tan body strongly contrasting with white throat and belly

***Ophichthus bonaparti* (Kaup 1856)** in honor of French biologist Charles Lucien Bonaparte (1803–1857), who supplied holotype

***Ophichthus brachynotus* Karrer 1983** *brachys* (Gr. βραχύς), short; *nótos* (Gr. νότος), back; *pterus*, Latinized adjective from *pterón* (Gr.

πτερόν) or *ptéryx* (πτέρυξ), fin, presumably referring to posterior dorsal-fin origin, making for a shorter dorsal fin [often dated 1982]

***Ophichthus brasiliensis* (Kaup 1856)** *-ensis*, Latin suffix denoting place: Rio de Janeiro, Brazil, type locality (possibly erroneous)

***Ophichthus brevicaudatus* Chu, Wu & Jin 1981** *brevis* (L.), short; *caudatus* (L.), tailed, referring to shorter tail compared with *O. stenopterus*

***Ophichthus brevidorsalis* Chiu & Hibino 2019** *brevis* (L.), short; *dorsalis* (L.), of the back, referring to dorsal-fin origin behind pectoral-fin tip, easily distinguished from related species in which dorsal fin arises above or behind pectoral fin



***Ophichthus brevis* McCosker & Ross 2007** *brevis* (L.), short; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to short, blunt and rounded snout when viewed from above

***Ophichthus celebicus* (Bleeker 1856)** *-icus* (L.), belonging to: Manado, Celebes (now Sulawesi), Indonesia, type locality

***Ophichthus cephalozona* Bleeker 1864** *cephalo-*, from *kephalḗ* (Gr. κεφαλή), head; *zona* (L.), band, referring to broad black band across nape

***Ophichthus chennaiensis* Das, Mohapatra, Rajendar & Bhaskar 2020** *-ensis*, Latin suffix denoting place: Chennai, Tamil Nadu, India, where type locality (Kasimedu fishing harbor) is situated

***Ophichthus chilkinsis* Chaudhuri 1916** *-ensis*, Latin suffix denoting place: Chilka Lake (a brackish water lagoon), Odisha, India, type locality

***Ophichthus congroides* McCosker 2010** *-oides*, Neo-Latin from *eídos* (Gr. εἶδος), form or shape: referring to similarity of posterior nostril, which opens within outer lip, to that of some congrid

***Ophichthus cruentifer* (Goode & Bean 1896)** Latin for bloody but authors say it means sanguinary (causing bloodshed) or cruel, reflecting their mistaken belief that it is a parasitic borer (specimens were found inside bodies of other fishes) [see essay on previous page]

***Ophichthus cylindroideus* (Ranzani 1839)** *-eus*, Latin suffix, having the quality of: *cylindros*, from *kýlindros* (Gr. κύλινδρος), cylinder, referring to its body shape

***Ophichthus echeloides* (D'Ancona 1928)** *-oides*, Neo-Latin from *eídos* (Gr. εἶδος), form or shape: described from a leptocephalus presumed to be in the family Echelidae (=Ophichthidae)

***Ophichthus erabo* (Jordan & Snyder 1901)** Japanese name of venomous sea snake *Platurus fasciatus* (= *Laticauda colubrina*), which it resembles

***Ophichthus exourus* McCosker 1999** *éxourous* (Gr. ἔξουρος), conical (or, per McCosker, ending in a tapered point), referring to how its robust body tapers evenly to tail tip

***Ophichthus fasciatus* (Chu, Wu & Jin 1981)** Latin for banded, described as having more than 20 vertical black bands on body

***Ophichthus fowleri* (Jordan & Evermann 1903)** patronym not identified but certainly in honor of American ichthyologist Henry Weed Fowler (1878–1965), Academy of Natural Sciences of Philadelphia, and a student of Jordan's at Stanford University

***Ophichthus frontalis* Garman 1899** Latin for frontal, also used to indicate forehead, probably referring to "somewhat large" head

***Ophichthus genie* McCosker 1999** in honor of American ichthyologist Eugenia (Genie) B. Böhlke (1929–2001), Academy of Natural Sciences of Philadelphia, "friend and contributor to knowledge of apodal fishes" [presumably a noun in apposition, without the matronymic "ae"]

***Ophichthus gomesii* (Castelnau 1855)** in honor of physician-botanist Antônio Ildefonso Gomes de Freitas (1794–1859), who cured Castelnau of a malady in Rio de Janeiro

***Ophichthus grandoculis* (Cantor 1849)** *grandis* (L.), large; *oculis*, artificially derived from *oculus* (L.), eye, referring to its "comparatively large" eye, which "occupies nearly the whole space between the lip and the profile"

***Ophichthus hirritus* McCosker 2010** Latin for snarling (like a dog), referring to how its jaw teeth are exposed and lips do not meet when mouth is closed

***Ophichthus humanni* McCosker 2010** in honor of Paul Humann (b. 1937), American underwater photographer, author and friend, who has "generously aided ichthyologists with his photographs and observations"

***Ophichthus hyposagmatus* McCosker & Böhlke 1984** *hypó* (Gr. ὑπό), somewhat; *ságmatus* (Gr. σάγματος), genitive of *sáigma* (σάγμα), pack-saddle, referring to 16 faint tan saddles along body

***Ophichthus ishiyamorum* McCosker 2010** *-orum* (L.), commemorative suffix, plural: in honor of sibling philanthropists Nelson (b. 1944) and Patsy (b. 1937) Ishiyama for their interest in, and generous support of, ichthyological research

***Ophichthus johnmccoskeri* Mohapatra, Ray, Mohanty & Mishra 2018** in honor of American ichthyologist John E. McCosker (b. 1945), California Academy of Sciences, for "vast" contributions to the taxonomy of ophichthid eels

***Ophichthus kailashchandrai* Mohapatra, Ray, Mohanty & Mishra 2020** in honor of Kailash Chandra, Director, Zoological Survey of India, for his "vast" contributions to Indian animal taxonomy

***Ophichthus kunaloo* McCosker 1979** named for Kuna Loa, the Long Eel of ancient Hawaiian legends, whose cut tail evolved into to the common conger eel and whose blood gave rise to all other Hawaiian eels ("This, clearly," McCosker wrote, "was the first attempt at a phylogenetic interpretation of Hawaiian anguilliforms.")

***Ophichthus kusanagi* Hibino, McCosker & Tashiro 2019** named for the ancient holy sword *kusanagi-no-tsurugi* (one of the Three Imperial Regalia of Japan), which was used by the legendary Japanese prince Yamato Takeru no Mikoto (ca. 72–114) for cutting grass and avoiding disaster at Suruga-no-kuni (now Shizuoka Prefecture), where type locality (Suruga Bay) is situated

***Ophichthus lentiginosus* McCosker 2010** Latin for freckled, referring to fine dark freckles over its entire body

***Ophichthus leonensis* Blache 1975** *-ensis*, Latin suffix denoting place: off the coast of Sierra Leone, type locality and only known area of occurrence

***Ophichthus limkouensis* Chen 1929** *-ensis*, Latin suffix denoting place: Limkou, Kwangtung, China, type locality

***Ophichthus lithinus* (Jordan & Richardson 1908)** *líthinos* (Gr. λίθινος), made of stone ("marbled, like stone," per the authors), referring to dark mottling on dorsal surface and sides, tending in places to form vague crossbands

***Ophichthus longicarpus* Vo & Ho 2021** *longus* (L.), long; *corpus* (L.), body, referring to its "very long" trunk (4.1–4.9 times HL)

***Ophichthus longipenis* McCosker & Rosenblatt 1998** *longus* (L.), long; *penis* (L.), tail, referring to its long tail, 74–80% of TL

***Ophichthus lupus* Hibino, McCosker & Tashiro 2019** Latin for wolf, referring to wolf-like shape of snout, described as "long and acute"

***Ophichthus machidai* McCosker, Ide & Endo 2012** in honor of Japanese ichthyologist Yoshihiko Machida, who guided second author (Sachiko Ide) through her thesis at Kochi University, Kochi, Japan

***Ophichthus macrochir* (Bleeker 1852)** *macro-*, from *makrós* (Gr. μακρός), long or large; *chir*, from *cheír* (Gr. χεῖρ), hand (homologous to the pectoral fin), referring to its long pectoral fins, ½ length of head

***Ophichthus macrops* Günther 1910** *macro-*, from *makrós* (Gr. μακρός), long or large; *ōps* (Gr. ὤψ), eye, referring to its large eyes, ½ as long as snout and nearly ½ length of head

***Ophichthus maculatus* (Rafinesque 1810)** Latin for spotted, referring to scattered spots on body

***Ophichthus manilensis* Herre 1923** *-ensis*, Latin suffix denoting place: Manila, referring to Manila Bay (Cavite, Philippines) and/or to Tondo market in Manila, co-type localities

***Ophichthus marginatus* (Peters 1855)** Latin for edged or bordered, referring to black edge on dorsal fin

***Ophichthus mccoskeri* Sumod, Hibino, Manjabrayakath & Sanjeevan 2019** in honor of American ichthyologist John E. McCosker (b. 1945), California Academy of Sciences, for his "immense contributions to ophichthid eel systematics and phylogeny"

***Ophichthus mecopterus* McCosker & Rosenblatt 1998** long-finned, from *meco-*, from *mēkos* (Gr. μήκος), length (authors say “long”), and *pterus*, from *pterón* (Gr. πτερόν) or *ptéryx* (πτέρυξ), fin, referring to its elongate pectoral fins

***Ophichthus megalops* Asano 1987** *mega-*, from *mégas* (Gr. μέγας), big; *ops* (Gr. ὤψ), eye, referring to its “remarkably” large eyes

***Ophichthus melanoporos* Kanazawa 1963** black-pored, from *mélanos* (Gr. μέλανος), genitive of *mélas* (μέλας), black, and *poros* (Gr. πόρος), hole or pore, referring to conspicuous black pores on head and lateral line

***Ophichthus melope* McCosker & Rosenblatt 1998** *mélas* (Gr. μέλας), black; *opé* (Gr. ὀπή), opening or hole, referring to head pores conspicuously surrounded by rings, or melanophores

***Ophichthus menezesi* McCosker & Böhlke 1984** in honor of Brazilian ichthyologist Naercio A. Menezes (b. 1937), for his “generous contributions” of specimens, including holotype of this one, to the authors’ eel research

***Ophichthus microcephalus* Day 1878** small-headed, from *mikrós* (Gr. μικρός), small, and *kephalé* (Gr. κεφαλή), head, referring to its smaller head compared with *Pisodonophis boro* and *Myrichthys colubrinus*, its presumed congeners at the time

***Ophichthus microstictus* McCosker 2010** *micro-*, from *mikrós* (Gr. μικρός), small; *stictus*, from *stiktós* (Gr. στικτός), pricked or spotted, referring to its minute cephalic pores

***Ophichthus mystacinus* McCosker 1999** scientific Neo-Latin adjective of *mýstax* (Gr. μύσταξ), moustache, referring to high density of dark spots surrounding base of anterior nostril tubes, “appearing like a faint moustache”

***Ophichthus naevius* Kodeeswaran, Kathirvelpandian, Mohapatra, Kumar & Sarkar 2023** Latin for having moles or spots, referring to numerous dark spots on dorsal surface of body

***Ophichthus naga* McCosker & Psomadakis 2018** *Nāga*, a seagoing, serpentine dragon-like being in Buddhism that has great powers; they are able to swim through the earth as if it was water, a behavior not unlike that of ophichthid eels

***Ophichthus nansen* McCosker & Psomadakis 2018** named for the EAF-Nansen Programme and in honor of Fridtjof Nansen (1861–1930), “famous” Norwegian explorer and scientist for whom the programme and research vessel were named; since 1975, the “EAF-Nansen Programme has contributed to increasing the knowledge of global marine biodiversity while supporting developing countries in fisheries research and sustainable management of their resources throughout surveys at sea and capacity building” [a noun in apposition, without the patronymic “i”]

***Ophichthus nigroventralis* Kodeeswaran, Mohapatra & Kumar 2023** *nigro-*, from *niger* (L.), dark or black; *ventralis* (L.), of the belly, referring to numerous black dots on abdomen

***Ophichthus obtusus* McCosker, Ide & Endo 2012** Latin for blunt or dull, referring to its short and conical snout

***Ophichthus oligosteus* Hibino, McCosker & Tashiro 2019** *olígos* (Gr. ὀλίγος), few or scanty; *osteus* (Neo-Latin), bony, from *ostéon* (Gr. ὀστέον), bone, having the fewest vertebrae (46 preanal and 121 overall) in the genus

***Ophichthus olivaceus* McCosker & Bogorodsky 2020** Latin for olive-colored, referring to dark tan with olivaceous hue color in life

***Ophichthus omorgmus* McCosker & Böhlke 1984** Latinization of *ómorgma* (Gr. ὄμοργμα), that which is wiped off or swept away (i.e., spot, stain or dirt, whereas authors say name means “spotted”), referring to conspicuous spots (black pores) around lateral line

***Ophichthus ophis* (Linnaeus 1758)** *óphis* (Gr. ὄφις), serpent, referring to its snake-like appearance

***Ophichthus pallens* (Richardson 1848)** Latin for pale or pallid, referring

to its “pale honey-yellow or faint wood-brown” coloration, “lighter on the belly, and without spots”

***Ophichthus polyophthalmus* Bleeker 1864** *polý-* (Gr. πολύ), many; *ophthalmós* (Gr. ὀφθαλμός), eye, referring to numerous ocellated (eye-like) spots on head and body

***Ophichthus pratensis* Ho, Ng & Lin 2022** *-ensis*, Latin suffix denoting place: Pratas Island, the only island of Dongsha Atoll, “whose large coral reefs surrounded by deep sea are situated near the holotype’s collection site. With this name we also hope to call attention to the possible damage that frequent fishery activity in the area might be causing to the environment and natural resources of Dongsha Atoll.”

***Ophichthus pullus* McCosker 2005** Latin for dark, referring to uniform gray-brown-to-black coloration in ethanol

***Ophichthus puncticeps* (Kaup 1859)** *punctum* (L.), dot; *-iceps* (Neo-Latin), headed, referring to characteristic pattern of white dots and dashes on snout and head

***Ophichthus remiger* (Valenciennes 1837)** etymology not explained nor evident, possibly *remus* (L.), oar, and *-iger* (L.), to bear (if so, allusion not evident); Valenciennes changed spelling to *ramiger*, leading to speculation that name refers to Port Rame, Chile, type locality (no contemporary locality has that name, possibly referring to present-day Estero Rama, south of Valparaiso)<sup>7</sup>

***Ophichthus retrodorsalis* Liu, Tang & Zhang 2010** *retro-* (L.), behind; *dorsalis* (L.), of the back, referring to dorsal-fin origin far behind tip of pectoral fins

***Ophichthus rex* Böhlke & Caruso 1980** Latin for king, referring to preeminently large size (>2 m has been reported)

***Ophichthus rotundus* Lee & Asano 1997** Latin for round or circular, referring to almost completely cylindrical body shape

***Ophichthus rufus* (Rafinesque 1810)** Latin for red or reddish, referring to color of head (actually yellow-brown)

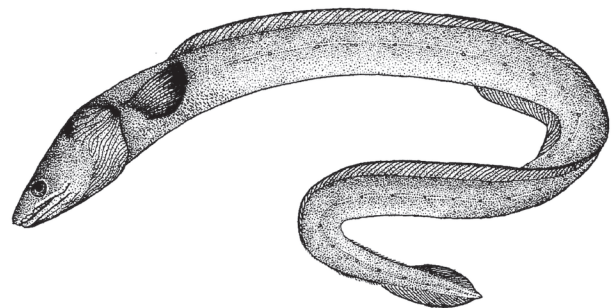
***Ophichthus rugifer* Jordan & Bollman 1890** *rugá* (L.), wrinkle or crease; *fero* (L.), to have or bear, referring to longitudinal striations obvious on larger specimens

***Ophichthus rutidoderma* (Bleeker 1852)** *rutido-*, from *rhytidódēs* (Gr. ρυτιδώδης), wrinkled; *dérma* (Gr. δέρμα), skin, referring to longitudinal furrows on skin

***Ophichthus sangjuensis* (Ji & Kim 2011)** *-ensis*, Latin suffix denoting place: Sangju, South Sea of Korea, type locality

***Ophichthus semilunatus* Hibino & Chiu 2019** *semi-*, from *semis* (L.), a half or moiety; *lunatus* (L.), lunate, referring to half-moon blotch on anterior margin of anus

***Ophichthus serpentinus* Seale 1917** Latin for snake-like, probably referring to its elongate, cylindrical and hence snake-like shape



*Ophichthus tchangii*, holotype, 501 mm TL. From: Tang, W.-Q. and C.-G. Zhang. 2002. One new species of the family Ophichthidae from East China Sea (Pisces: Anguilliformes). *Acta Zootaxonomica Sinica* 27 (4): 854–856.

<sup>7</sup> McCosker, J. E. and R. H. Rosenblatt. 1998. A revision of the eastern Pacific snake-eel genus *Ophichthus* (Anguilliformes: Ophichthidae) with the description of six new species. *Proceedings of the California Academy of Sciences* 50 (19): 397–432.



***Ophichthus shaoi* McCosker & Ho 2015** in honor of Taiwanese ichthyologist and marine ecologist Kwang-Tsao Shao (b. 1951), Biodiversity Research Center, Academia Sinica, Taiwan

***Ophichthus singapurensis* Bleeker 1864** *-ensis*, Latin suffix denoting place: Singapore, type locality

***Ophichthus spinicauda* (Norman 1922)** *spina* (L.), thorn or spine; *cauda* (L.), tail, referring to short section of erect and thickened (“spinous”) rays in posterior segment of dorsal fin (near tail)

***Ophichthus tchangi* Tang & Zhang 2002** in honor of Tchunlin Tchang (1897–1963), Curator of Zoology, Fan Memorial Institute of Biology, “China’s leading authority on ichthyology and fishery science”

***Ophichthus tetratrema* McCosker & Rosenblatt 1998** *tetrá* (Gr. τετρά), four; *tréma* (Gr. τρήμα), hole, referring to unique presence of four preopercular pores

***Ophichthus tomioi* McCosker 2010** in honor of American ichthyologist Tomio Iwamoto (b. 1939), California Academy of Sciences, friend and colleague who captured holotype

***Ophichthus triserialis* (Kaup 1856)** *tri-* (L.), three; *serialis* (L.), rowed, referring to two rows of large, round spots on dorsal fin and lateral line, and a third row going as far as anus

***Ophichthus unicolor* Regan 1908** *uni-*, from *unus* (L.), one, referring to uniformly brownish coloration

***Ophichthus urolophus* (Temminck & Schlegel 1846)** *uro*, from *ourá* (Gr. οὐρά), tail; *lóphos* (Gr. λόφος), mane or crest, referring to elevated posterior portions of vertical (dorsal and anal) fins (which, as in all eels, converge at the tail)

***Ophichthus vietnamensis* Vo, Hibino & Ho 2019** *-ensis*, Latin suffix denoting place: off Ky Ha, central coast of Vietnam, type locality

***Ophichthus woosuitingi* Chen 1929** in honor of S. T. (Sui-ting) Woo, Sun Yat-sen University (Guangzhou, China), assistant to Prof. H. N. Fey, who (Fey) discovered this species

***Ophichthus yamakawai* Hibino, McCosker & Tashiro 2019** in honor of Takeshi Yamakawa (b. 1942), Kochi University (Japan), a fish collecting specialist and ichthyologist, for his “great” contributions to taxonomy and the study of Japanese fishes

***Ophichthus zophistius* (Jordan & Snyder 1901)** *zopherós* (Gr. ζοφερός), dusky or gloomy; *istius*, from *histión* (Gr. ἱστῖον), sail (i.e., dorsal fin), referring to “posteriorly dusky” dorsal fin, with a broad black edge

***Ophichthus zophochir* Jordan & Gilbert 1882** *zóphos* (Gr. ζόφος), darkness; *chir*, from *cheír* (Gr. χεῖρ), hand (homologous to the pectoral fin), referring to occasionally black pectoral fin on adults

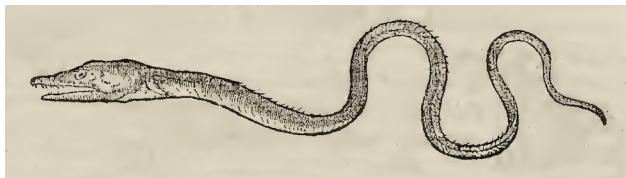
## ***Ophisurus***

Lacepède 1800

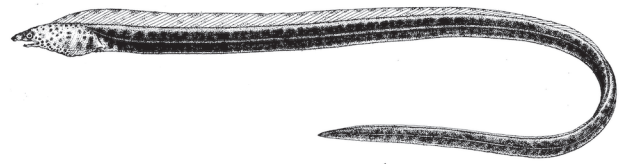
*óphis* (Gr. ὄφις), serpent, referring to snake-like appearance, and *urus*, from *ourá* (Gr. οὐρά), tail, referring to pointed (i.e., snake-like) caudal fin of *O. serpens*

***Ophisurus macrorhynchos* Bleeker 1853** *macro-*, from *makrós* (Gr. μακρός), long; *rhýnchos* (Gr. ῥύγχος), snout, referring to its long, sharp snout

***Ophisurus serpens* (Linnaeus 1758)** Latin for snake, referring to its ser-



“*De Serpente marino*,” as illustrated in one of the publications from which Linnaeus based his description of *Muraena* (now *Ophisurus*) *serpens*. From: Rondelet, G. 1554. *Libri de piscibus marinis, in quibus veræ piscium effigies expressæ sunt*. M. Bonhomme, Lugduni (Lyon). i–xiv + 1–583 + i–xxiii (unnumbered).



*Paraletarchus pacificus*, holotype, 139.7 mm TL. Illustration by K. Kimoto. From: Osburn, R. C. and J. T. Nichols. 1916. Shore fishes collected by the “Albatross” expedition in Lower California, with descriptions of new species. *Bulletin of the American Museum of Natural History* 35 (16): 139–181.

pentine shape and habits, and reflecting a vernacular (e.g., sea snake, *serpent marin*, *serpent de mer*) that dates to Aristotle

## ***Paraletarchus***

McCosker 1974

*pará* (Gr. παρά), beside or near, representing a separate generic lineage from *Letharchus*, in which *P. pacificus* had previously been placed

***Paraletarchus opercularis* (Myers & Wade 1941)** Latin for opercular, referring to “pendulous, operculumlike fold of skin hanging down over and screening gill openings”

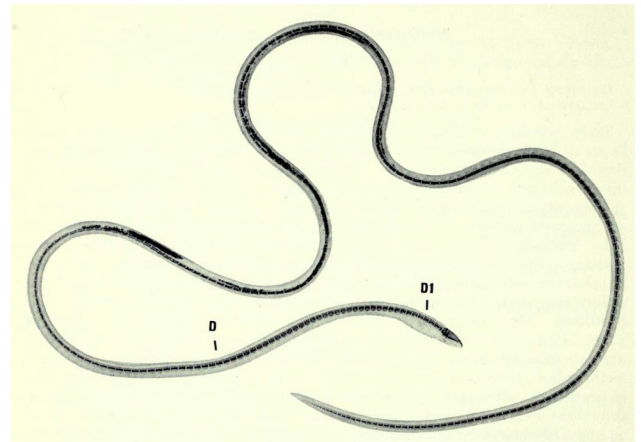
***Paraletarchus pacificus* (Osburn & Nichols 1916)** *-icus* (L.), belonging to: referring to its occurrence in the Eastern Pacific compared with the Gulf of Mexico distribution of its presumed congener *Letharchus velifer*

## ***Phaenomonas***

Myers & Wade 1941

*phanerós* (Gr. φανερός), visible; *mónas* (Gr. μόνας), single, referring to absence of all fins except for a “brief, anteriorly placed, well-defined dorsal fin”

***Phaenomonas cooperae* Palmer 1970** in honor of Jane M. Cooper, Department of Cooperative Society, Suva, Fiji, who collected holotype while living at Betio, Tarawa, in the Gilbert Islands (Kiribati, Western Pacific)

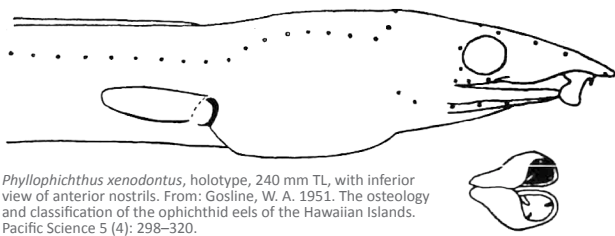


*Phaenomonas cooperae*, x-ray of holotype, 513 mm TL. D–D1 = position of dorsal fin. From: Palmer, G. 1970. New records, and one new species, of teleost fishes from the Gilbert Islands. *Bulletin of the British Museum (Natural History) Zoology* 19 (6): 213–234.

***Phaenomonas foresti* (Cadenat & Roux 1964)** in honor of French carcinologist Jacques Forest (1920–2012), who led *Calypso* mission that collected holotype at Cape Verde Islands

***Phaenomonas longissima* (Cadenat & Marchal 1963)** Latin for very long, referring to its extreme length (498 mm TL in type series, up to 553 mm TL known)

***Phaenomonas pinnata* Myers & Wade 1941** Latin for finned but possibly used here as a diminutive of *pinna* (L.), fin, referring to “brief, anteriorly placed, well-defined dorsal fin” (eel is otherwise finless)



*Phyllophichthus xenodontus*, holotype, 240 mm TL, with inferior view of anterior nostrils. From: Gosline, W. A. 1951. The osteology and classification of the ophichthid eels of the Hawaiian Islands. Pacific Science 5 (4): 298–320.

### *Phyllophichthus*

Gosline 1951

*phýllon* (Gr. φύλλον), leaf, referring to anterior nostrils with posterior borders extending downward into leaf-like appendages; *Ophichthus*, type genus of family

*Phyllophichthus xenodontus* Gosline 1951 *xen-*, from *xenikós* (Gr. ξενικός), strange (i.e., different); *odontus*, Latinized and grammatically adjusted from the Greek nominative ὀδοῦς (*odoús*), tooth, referring to dentition, different from all other ophichthids (two rows of conical teeth on intermaxillary plate; single row of smaller teeth on inner border of each maxillary; no vomerine teeth; mandibular teeth large, uniserial, well outside of maxillary teeth and projecting directly laterally)

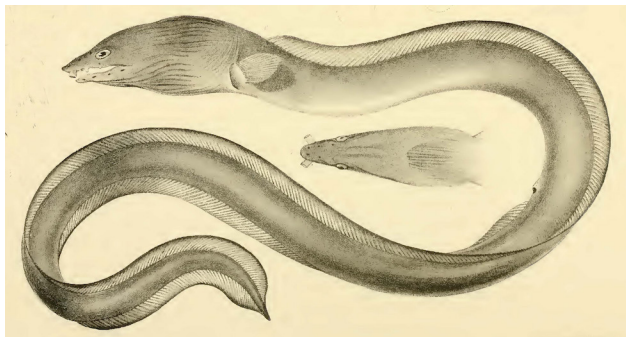
### *Pisodonophis*

Kaup 1856

*pis*, from *pisum* (L.), pea, and *odon*, Latinized and grammatically adjusted from the Greek nominative ὀδοῦς (*odoús*), tooth, referring to granular, pea-shaped teeth; *óphis* (Gr. ὄφις), serpent, conventional termination for generic names of snake eels, referring to their snake-like shape

*Pisodonophis boro* (Hamilton 1822) Bengali vernacular for this eel, presumably derived from *boro*, a variety of rice, possibly alluding to this anadromous eel's occurrence (and reported spawning) in rice paddies

*Pisodonophis cancrivorus* (Richardson 1848) *cancer* (L.), crab; *-vorus* (L.), eating, allusion not explained but clearly referring to its crab diet



*Pisodonophis cancrivorus*. From: Richardson, J. 1844–48. Ichthyology of the voyage of H.M.S. Erebus & Terror. In: J. Richardson & J. E. Gray (eds.), The zoology of the voyage of H.M.S. Erebus & Terror, under the command of Captain Sir J. C. Ross, R.N., F.R.S., during the years 1839 to 1843. E. W. Janson, London. [Pages 75–139 published in 1848.]

*Pisodonophis copelandi* Herre 1953 in honor of American botanist Edwin Bingham Copeland (1873–1964), founder of the Philippine College of Agriculture and friend to both Herre and the Philippine people

*Pisodonophis daspilotus* Gilbert 1898 *da-* (Gr. δα), intensive prefix, i.e., very or exceedingly; *spilōtós* (Gr. σπλωτός), marked or stained, presumably referring to thick covering of black spots on head and body

*Pisodonophis hijala* (Hamilton 1822) presumably Bengali vernacular for this eel

*Pisodonophis hoeveni* (Bleeker 1853) in honor of the “famous” (translation) Dutch zoologist, Jan van der Hoeven (1801–1868)

*Pisodonophis hypselopterus* (Bleeker 1851) high-finned, from *hypsēlós* (Gr. ὑψηλός), high, and *pterus*, from *pterón* (Gr. πτερόν) or *ptéryx* (πτέρυξ), fin, referring to elevated dorsal and, especially, anal fins

*Pisodonophis kalinga* Mohanty, Behera, Acharya, Patnaik, Ray, Seth, Patro, Mishra & Mohapatra 2023 Kalinga, historical name of Odisha,

India, where type localities (Chilika lagoon and Palur canal, connecting link between the Bay of Bengal and Chilika) are situated

*Pisodonophis semicinctus* (Richardson 1848) *semi-*, from *semis* (L.), a half or moiety; *cinctus* (L.), belted or girdled, referring to 18 deep purplish-brown spots or bars that band around upper half of body, fading away below lateral line, except for last three, which encircle tail

### *Quassiremus*

Jordan & Davis 1891

*quassus*, from *quatio* (L.), to move or shake, i.e., shaken, beaten, broken in pieces, battered or shattered (authors say “obliterated”); *remus* (L.), oar, referring to minute pectoral fins of *Q. evionthas* and *O. notochir*

*Quassiremus ascensionis* (Studer 1889) *-is*, Latin genitive singular of: east of Ascension Island, South Atlantic Ocean, type locality



*Quassiremus ascensionis*. From: Studer, T. 1889. Die Forschungsreise SMS “Gazelle” in den Jahren 1874 bis 1876 unter Kommando des Kapitän zur See Freiherrn von Schleinitz ...III. Teil: Zoologie und Geologie. Berlin. i–vi + 1–322, Pls. 1–33.

*Quassiremus evionthas* (Jordan & Bollman 1890) *ev-*, Latinization of *eú-* (Gr. εὖ), well or very; *ionthás* (Gr. ιονθάς), shaggy but used here to mean freckled, referring to small black spots over body

*Quassiremus notochir* (Gilbert 1890) *nóthos* (Gr. νόθος), spurious; *chir*, from *cheír* (Gr. χεῖρ), hand (homologous to the pectoral fin), referring to its minute pectoral fins

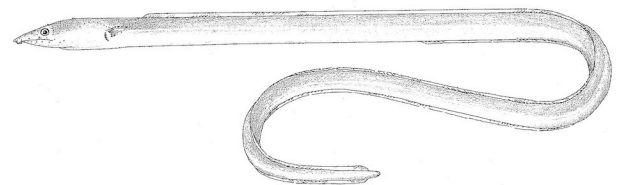
*Quassiremus polyclitellum* Castle 1996 *poly-* (Gr. πολύ), many; *clitellum*, from *clitellae* (L., only in plural), pack-saddle, referring to 16–20 prominent saddle-shaped bars across dorsum

### *Rhinophichthus*

McCosker 1999

*rhinós* (Gr. ῥινός), genitive of *rhis* (ῥίς), snout, referring to conical snout, tapering evenly to a sharp point; *Ophichthus*, type genus of family

*Rhinophichthus penicillatus* McCosker 1999 *-atus* (L.), having the nature of: *penicillus* (L.), pencil, referring to sharpened-pencil appearance of both head and tail

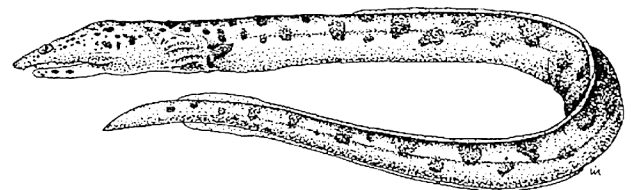


*Rhinophichthus penicillatus*, holotype, 457 mm TL. Illustration by Molly Brown. From: McCosker, J. E. 1999. Pisces Anguilliformes: deepwater snake eels (Ophichthidae) from the New Caledonia region, southwest Pacific Ocean. Mémoires du Muséum National d'Histoire Naturelle, Paris (N. S.) (Série A) Zoologie No. 180: 571–588.

### *Scytalichthys*

Jordan & Davis 1891

*skytálē* (Gr. σκυτάλη), serpent or viper, one of the many venomous snakes born from the blood of Medusa in the Libyan desert, presumably referring to its snake-like appearance; *ichthýs* (Gr. ἰχθύς), fish



Possibly the first-published illustration (113 years after its description) of *Scytalichthys miurus*. From: McCosker, J. E. and R. H. Rosenblatt. 1995. Ophichthidae. In: Fischer, W., F. Krupp, W. Schneider, C. Sommer, K. E. Carpenter and V. H. Niem. Guía FAO para la identificación para los fines de la pesca. Pacífico centro-oriental. Volumen III. Vertebrados Parte 2. 1201–1813



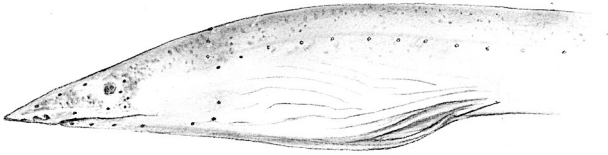
**Scytalichthys miurus** (Jordan & Gilbert 1882) short-tailed, from *meiōō* (Gr. μειώω), to lessen or diminish, i.e., shortened or curtailed, and *urus*, from *ourá* (Gr. οὐρά), tail, referring to its “unusually short” tail

### Stictorhinus

Böhlke & McCosker 1975

*stiktós* (Gr. στικτός), pricked or punctured; *rhinus*, from *rhinós* (Gr. ῥινός), genitive of *rhís* (ῥίς), snout, referring to its tubeless anterior nostrils, which consist of a hole with lateral fleshy projections into it

**Stictorhinus potamius** Böhlke & McCosker 1975 -*ius* (L.), pertaining to: *potamós* (Gr. ποταμός), river, referring to its freshwater habitat (Amazon and Orinoco River basins)



*Stictorhinus potamius*, paratype, 316.5 mm TL. From: Böhlke, J. E. and J. E. McCosker. 1975. The status of the ophichthid eel genera *Caecula* Vahl and *Sphagebranchus* Bloch, and the description of a new genus and species from fresh waters in Brazil. *Proceedings of the Academy of Natural Sciences of Philadelphia* 127 (1): 1–11.

### Suculentophichthus

Fricke, Golani & Appelbaum-Golani 2015

*suculentus* (L.), succulent, referring to succulent-leaf shaped snout appendages, characteristic of genus; *Ophichthus*, type genus of family

**Suculentophichthus nasus** Fricke, Golani & Appelbaum-Golani 2015 Latin for nose, referring to its nose-like snout



Presumed specimen of *Suculentophichthus nasus*, Red Sea, Gulf of Aqaba, Israel, Eilat, North beach. Photographer unknown. From: Fricke, R., D. Golani and B. Appelbaum-Golani. 2015. *Suculentophichthus nasus*, a new genus and new species of snake eel from the northern Gulf of Aqaba, Red Sea (Teleostei: Ophichthidae). *Journal of the Ocean Science Foundation* 16: 56–66.

### Xestochilus

McCosker 1998

*xestós* (Gr. ξεστός), hewn or shaven; *cheilos* (Gr. χείλος), lip, referring to smooth (without a crease, split or barbel) upper lip

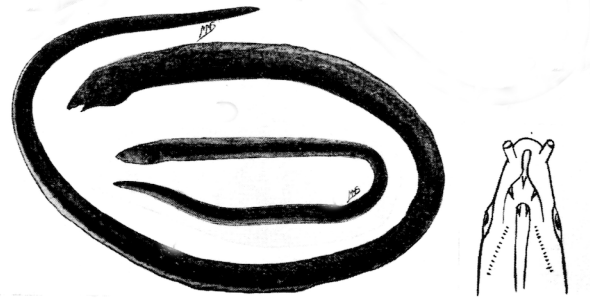
**Xestochilus nebulosus** (Smith 1962) Latin for cloudy, referring to “variable dusky cloudings” over most of dorsal surface on larger, older specimens

### Xyrias

Jordan & Snyder 1901

from *xuréō* (Gr. ξυρέω), to shave, referring to absence of cirri on lips of *X. revulsus* (authors say name is from ξυρία, which they translate as “shaveling”)

**Xyrias anjaalai** Augustina, Sreeram, Sukumaran, Jose & Sreekumar 2020 common name of this eel among Malayalam- and Tamil-speaking



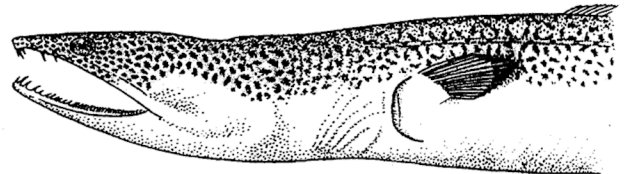
*Xestochilus nebulosus*, holotype, 470 mm TL (outer), and paratype, 145 mm TL (inner). Illustrations by Margaret Mary Smith. From: Smith, J. L. B. 1962. Sand-dwelling eels of the Western Indian Ocean and the Red Sea. *Ichthyological Bulletin, Department of Ichthyology, Rhodes University* 24: 447–466, Pls. 63–68.

local fishing communities in the southern parts of Kerala and Tamil Nadu states of India

**Xyrias chioui** McCosker, Chen & Chen 2009 in honor of Capt. Jiun-Shiun Chiou, who captured and donated holotype other important eel specimens to the laboratory of the National Taiwan Ocean University

**Xyrias guineensis** (Blache 1975) -*ensis*, Latin suffix denoting place: Gulf of Guinea, off Pointe-Noire, Republic of the Congo, type locality

**Xyrias multiserialis** (Norman 1939) *multi-* (L.), many; *serialis* (L.), rowed, presumably referring to eight series or rows of teeth in upper jaw



*Xyrias multiserialis*. From: Norman, J. R. 1939. *Fishes. The John Murray Expedition 1933–34. Scientific Reports, John Murray Expedition* (1): 1–116.

**Xyrias revulsus** Jordan & Snyder 1901 Latin for smooth-shaven or twice plucked, referring to the absence of cirri on its lips

### Yirrkala

Whitley 1940

named for Yirrkala, Gulf of Carpentaria, Queensland, Australia, type locality of *Y. chaselingi*

**Yirrkala calyptra** McCosker 2011 from *kalýptra* (Gr. καλύπτρα), veil, referring to its distinctive black facial slash

**Yirrkala chaselingi** Whitley 1940 in honor of Rev. Wilbur S. Chaseling (1910–1989), Methodist missionary at Yirrkala, Australia (type locality), who “presented” holotype

**Yirrkala fusca** (Zuiew 1793) Latin for dusky, dark or swarthy, referring to its uniform dark coloration

**Yirrkala gjellerupi** (Weber & de Beaufort 1916) in honor of Danish botanist and army surgeon Knud Gjellerup (1876–1950), who collected holotype

**Yirrkala insolitus** McCosker 1999 Latin for unusual or strange, referring to dorsal-fin origin far posterior to that of other *Yirrkala*, and to depth of capture (59 m), deeper than its shallow-water congeners

**Yirrkala kaupii** (Bleeker 1858) in honor of German naturalist (and apodal fish expert) Johann Jacob Kaup (1803–1873), for his many ichthyological discoveries

**Yirrkala lumbricoides** (Bleeker 1864) -*oides*, Neo-Latin from *éidos* (Gr. εἶδος), form or shape: *lumbricus* (L.), earthworm, referring to its vermiform body shape

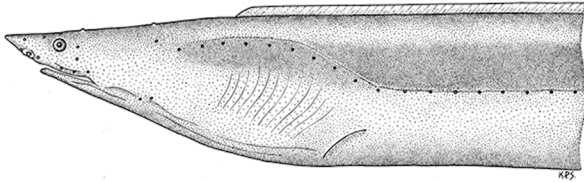
**Yirrkala macrodon** (Bleeker 1863) *macro-*, from *makrós* (Gr. μακρός), long or large; *odon*, Latinized and grammatically adjusted from the

Greek nominative ὀδοῦς (*odoús*), tooth, referring to larger, stronger teeth compared with *Sphagebranchus* (= *Lamnostoma*) *polyopthalma* and *S. (L.) bicolor* (the latter being a taxon of uncertain validity)

***Yirrkala maculata* (Klausewitz 1964)** Latin for spotted, referring to row of elongated dark brown spots above lateral line that gradually merge into each other near anus, and/or to small dots under lateral line, each one corresponding to a lateral-line pore

***Yirrkala misolensis* (Günther 1872)** *-ensis*, suffix denoting place: Misool Island (misspelled Misol), Irian Jaya, Indonesia, type locality

***Yirrkala moluccensis* (Bleeker 1864)** *-ensis*, Latin suffix denoting place: Ambon Island, Moluccas Islands, Indonesia, type locality



*Yirrkala moorei*, holotype, immature male, 434 mm TL. Illustration by Kathy Smith. From: McCosker, J. E. 2006. A new species of sand eel, *Yirrkala moorei* (Anguilliformes: Ophichthidae), from the South Pacific. *Proceedings of the California Academy of Sciences* (Series 4) 57 (10): 373–377.

***Yirrkala moorei* McCosker 2006** in honor of Intel co-founder and philanthropist Gordon E. Moore (1929–2023), for “his interest in fishes, his love of fishing, and his support of biodiversity research and conservation”

***Yirrkala omanensis* (Norman 1939)** *-ensis*, Latin suffix denoting place: Gulf of Oman, type locality and only known area of occurrence

***Yirrkala ori* McCosker 2011** named for the Oceanographic Research Institute (ORI) of South Africa, which collected holotype and many other “valuable” specimens

***Yirrkala philippinensis* (Herre 1936)** *-ensis*, Latin suffix denoting place: referring to type locality at Dumaguete, Oriental Negros, Philippines

***Yirrkala tenuis* (Günther 1870)** Latin for thin or slender, probably referring to its thin, elongate body

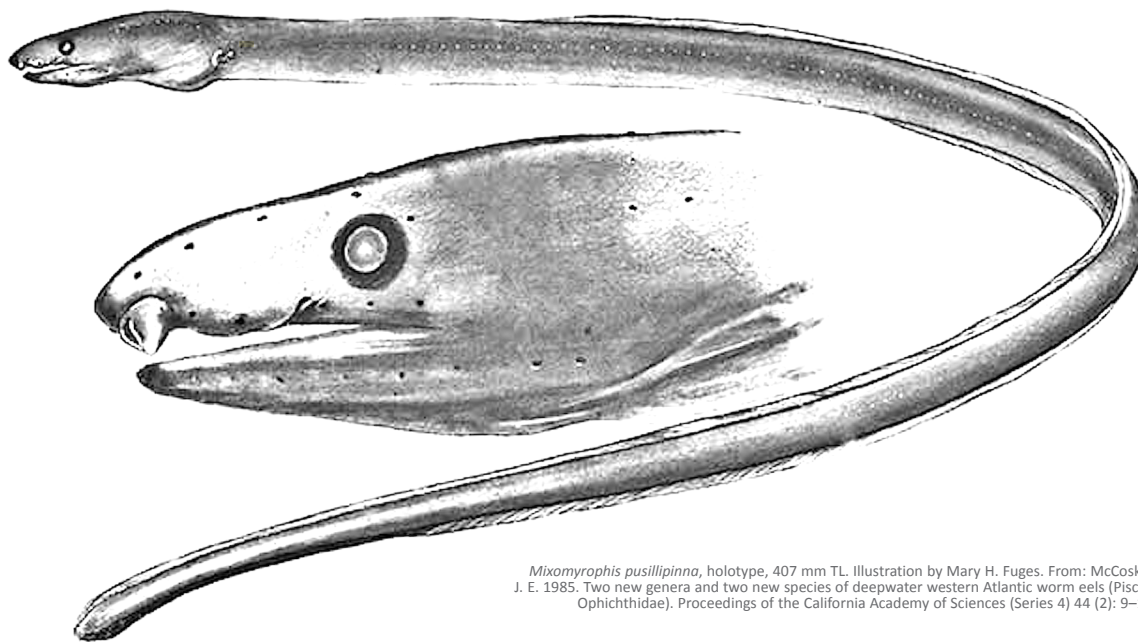


Order **ANGUILLIFORMES**

Worm Eels

Family **OPHICHTHIDAE**

Subfamily **MYROPHINAE** Kaup 1856



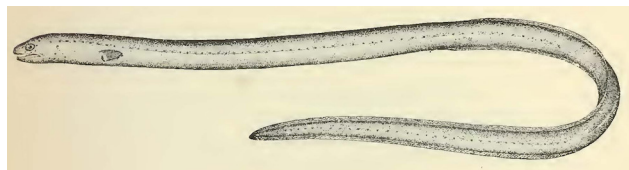
*Mixomyrophis pusillipinna*, holotype, 407 mm TL. Illustration by Mary H. Fuges. From: McCosker, J. E. 1985. Two new genera and two new species of deepwater western Atlantic worm eels (Pisces: Ophichthidae). Proceedings of the California Academy of Sciences (Series 4) 44 (2): 9–15.

**Ahlia**

Jordan & Davis 1891

-*ia* (L. suffix), belonging to: Jonas Nicholas Ahl (1765–1817), Swedish physician and student of Linnaeus, whose 1789 thesis (“De Muraena et Ophichtho”) “furnishes the beginning of our systematic arrangement of the eels”

***Ahlia egmontis* (Jordan 1884)** -*is*, Latin genitive singular of: Egmont Key, Florida, USA, type locality

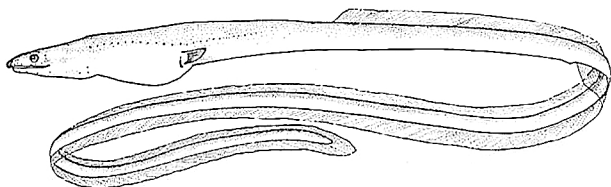


Possibly first-published image of *Ahlia egmontis*, holotype, ~380 mm TL. Illustration by H. L. Todd. From: Jordan, D. S. and B. W. Evermann. 1900. The fishes of North and Middle America: a descriptive catalogue of the species of fish-like vertebrates found in the waters of North America, north of the Isthmus of Panama. Part IV. Bulletin of the United States National Museum No. 47: i–ci + 3137–3313, Pls. 1–392.

**Asarcenchelys**

McCosker 1985

*ásarkos* (Gr. ἄσαρκος), without flesh or lean, referring to its “emaciated” appearance; *énchelys* (Gr. ἔγχελυς), eel



*Asarcenchelys longimanus*, holotype, 215 mm TL; reconstructed image of specimen badly torn in the anterior trunk region. Illustration by Amy Pertschuk. From: McCosker, J. E. 1985. Two new genera and two new species of deepwater western Atlantic worm eels (Pisces: Ophichthidae). Proceedings of the California Academy of Sciences (Series 4) 44 (2): 9–15.

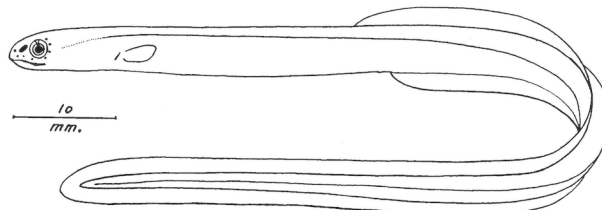
***Asarcenchelys longimanus* McCosker 1985** *longus* (L.), long; *manus* (L.), hand (homologous to the pectoral fin), referring to elongate pectoral fins

**Benthenchelys**

Fowler 1934

*bénthos* (Gr. βένθος), of the sea (Fowler said “of the depths”), referring to deepwater habitat of *B. cartieri* (collected at 1252.73 m); *énchelys* (Gr. ἔγχελυς), eel

***Benthenchelys cartieri* Fowler 1934** in honor of German herpetologist-ichthyologist Oscar Cartier, University of Würzburg, who studied Philippine fishes in 1874



*Benthenchelys cartieri*, holotype, 317 mm TL. Illustration by Henry Weed Fowler. From: Fowler, H. W. 1934. Descriptions of new fishes obtained 1907 to 1910, chiefly in the Philippine Islands and adjacent seas. Proceedings of the Academy of Natural Sciences of Philadelphia 85 (for 1933): 233–367.

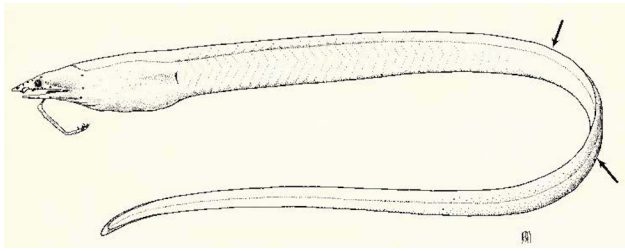
***Benthenchelys indicus* Castle 1972** -*icus* (L.), belonging to: known only from the Indian Ocean

***Benthenchelys pacificus* Castle 1972** -*icus* (L.), belonging to: known only from the Central Pacific

**Glenoglossa**

McCosker 1982

*glénos* (Gr. γλῆνος), trinket, bijou or jewel (McCosker said “a thing to stare at”); *glóssa* (Gr. γλῶσσα), tongue, referring to its elongate tongue,



*Glenoglossa wassi*, holotype, 153.5 mm TL. Arrows indicate origin of dorsal and anal fins. Illustration by Beth A. Meinhard. From: Osburn, R. C. and J. T. Nichols. 1916. Shore fishes collected by the "Albatross" expedition in Lower California, with descriptions of new species. Bulletin of the American Museum of Natural History 35 (16): 139–181.

extending well beyond mouth and decorated with a fleshy appendage

***Glenoglossa wassi* McCosker 1982** in honor of fisheries officer Richard C. Wass (b. 1942), U.S. Fish and Wildlife Service, who collected holotype and many other fishes from American Samoa

### Mixomyrophis

McCosker 1985

*mixis* (Gr. μίξις), a mixing; *Myrophis*, type genus of subfamily, referring to its combination of myrophine characters

***Mixomyrophis longidorsalis* Hibino, Kimura & Golani 2014** *longus* (L.), long; *dorsalis* (L.), of the back, referring to its longer dorsal-fin base compared with *M. pusillipinna*

***Mixomyrophis pusillipinna* McCosker 1985** *pusillus* (L.), puny or insignificant; *pinna* (L.), fin, referring to its minute pectoral fins

### Muraenichthys

Bleeker 1853

*Muraena*, moray eel, reflecting Bleeker's original placement of *M. gymnopterus* in that genus; *ichthys* (Gr. ἰχθύς), fish

***Muraenichthys gymnopterus* (Bleeker 1852)** *gymnós* (Gr. γυμνός), bare or naked; *pterus*, from *pterón* (Gr. πτερόν) or *ptéryx* (πέτρυξ), fin, referring to absence of pectoral fins

***Muraenichthys hattae* Jordan & Snyder 1901** in honor of zoologist Saburo Hatta (1865–1935), Imperial University, Tokyo, for his "excellent" paper on Japanese lampreys [although named after a man, "ae" is an acceptable way to form a genitive from a masculine noun that ends in "a"]

***Muraenichthys hibinoi* Mohapatra, Behera, Ray, Acharya, Mohanty & Mishra 2023** in honor of Yusuke Hibino, Kitakyushu Museum of Natural History and Human History (Japan), for his "distinguished" contribution to Anguilliformes taxonomy, particularly ophichthid eels

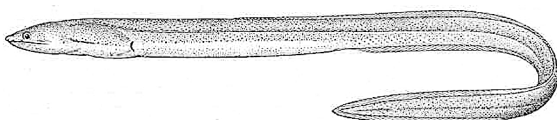
***Muraenichthys longirostris* Hibino, Ho & McCosker 2019** *longus* (L.), long; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to long and slender snout (18% of head length), unique in the genus

***Muraenichthys philippinensis* Schultz & Woods 1949** *-ensis*, Latin suffix denoting place: Badian Island, Philippines, type locality

***Muraenichthys schultzei* Bleeker 1857** in honor of Jan Francois Schultze (1817–1884), Assistant-Resident (i.e., governor) of Ambal, Java, who provided an important collection of fishes from the south coast of Java

***Muraenichthys sibogae* Weber & de Beaufort 1916** in honor of the ship *Siboga* and Indonesian expedition (1898–1899) of same name, during which holotype was collected

***Muraenichthys thompsoni* Jordan & Richardson 1908** in honor of



*Muraenichthys thompsoni*, holotype, 95.25 mm TL. From: Jordan, D. S. and R. E. Richardson. 1908. Fishes from islands of the Philippine Archipelago. Bulletin of the Bureau of Fisheries w. 27 (Doc. 640) (for 1907): 233–287.

Joseph Cheesman Thompson (1874–1943), U.S. Navy medical officer (neurosurgeon), amateur zoologist-archaeologist, co-founder of the Zoological Society of San Diego, psychoanalyst, and Burmese cat breeder, who collected holotype [see essay on next page]

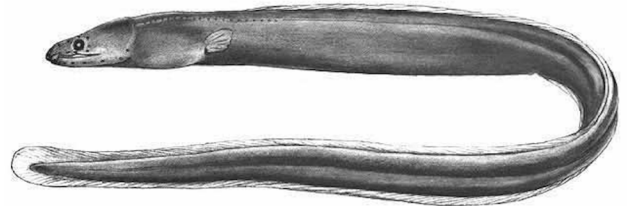
***Muraenichthys velinasalis* Hibino & Kimura 2015** *velum* (L.), veil; *nasalis* (L.), nasal, referring to posterior nostril concealed by a large flap

### Myrophis

Lütken 1852

*myros*, presumably a Latinization of *múros* (Gr. μῦρος)<sup>1</sup>, with two definitions, a kind of eel and, specifically, a male moray, probably used here as a general word for eel; *óphis* (Gr. ὄφις), serpent, conventional termination for generic names of snake eels, referring to their snake-like shape

***Myrophis anterodorsalis* McCosker, Böhlke & Böhlke 1989** *antero-* (L.), anterior; *dorsalis* (L.), of the back, referring to anterior origin of dorsal fin



*Myrophis anterodorsalis*, holotype, 161 mm TL. Illustration by Mary H. Fuges. From: McCosker, J. E., E. B. Böhlke and J. E. Böhlke. 1989. Family Ophichthidae. In: Böhlke, E. B. (ed.). Fishes of the Western North Atlantic. Memoirs of the Sears Foundation for Marine Research No. 1 [pt. 9, vol. 1]: i–xvii, 1–655.

***Myrophis lepturus* Kotthaus 1968** thin-tailed, from *leptós* (Gr. λεπτός), fine or thin, and *urus*, from *ourá* (Gr. οὐρά), tail, referring to very low and thin tail compared with body

***Myrophis microchir* (Bleeker 1864)** *micro-*, from *mikrós* (Gr. μικρός), small; *chir*, from *cheír* (Gr. χεῖρ), hand (homologous to the pectoral fin), referring to its small pectoral fins, about 4½ times within length of head

***Myrophis platyrhynchus* Breder 1927** flat- (or broad-) snouted, from *platýs* (Gr. πλατύς), broad and/or flat, and *rhýnchos* (Gr. ῥύγχος), snout, referring to its "peculiar broad flat snout"

***Myrophis plumbeus* (Cope 1871)** Latin for "of lead," i.e., lead-colored, referring to ventral coloration of holotype

***Myrophis punctatus* Lütken 1852** Latin for spotted, referring to dark-brown spots on sides and back

***Myrophis vafer* Jordan & Gilbert 1883** Latin for sly or cunning, allusion not explained, possibly referring to its similarity to and previous misidentification as *M. punctatus*

### Neenchelys

Bamber 1915

*néos* (Gr. νέος), new; *énchelys* (Gr. ἔγχελυς), eel, literally a new family (Neenchelidae, now synonymized) and genus of eels

***Neenchelys andamanensis* Hibino, Satapoomin & Kimura 2015** *-ensis*, Latin suffix denoting place: Andaman Sea, eastern Indian Ocean, type locality

***Neenchelys buitendijki* Weber & de Beaufort 1916** in honor of Pieter Buitendijk (1870–1932), surgeon aboard the *Siboga* expedition, who collected holotype from the Java Sea

***Neenchelys cheni* (Chen & Weng 1967)** in honor of Tung-Pai Chen, chief, Section of Fisheries, Joint Sino-American Commission on Rural Reconstruction (JCCR), for "financial support and kind encouragement"

***Neenchelys daedalus* McCosker 1982** named after Daedalus, the "Greek artisan who escaped from his Earth-bound prison and ascended into heaven," referring to its midwater habitat, the second ophichthid

<sup>1</sup> *Múros*, sometimes spelled *smúros* (Gr. σμῦρος), may be derived from the Indo-European *smér(u)* meaning fat (eels have a high fat content) or greasy (i.e., slippery). See: Frisk, H. 1970. Griechisches etymologisches Wörterbuch. Vol. 2. Heidelberg: Carl Winter Universitätsverlag. 1154 pp.



## In honor of “Snake” Thompson

People like Joseph Cheesman Thompson can make anyone feel like a boring underachiever.

Born in 1874, he graduated from Columbia Medical School and became a career medical officer in the United States Navy. In August 1900, Thompson distinguished himself as part of a U.S.

Marines mission to Peking (Beijing), China, providing medical care for foreigners and Chinese Christians who were under attack during the Boxer Rebellion. Upon his return to the states, Thompson served as a neurosurgeon at the Navy hospital in San Diego, California, where he attained the rank of commander before his retirement in 1929.



“Snake” Thompson in 1917.

That, in and of itself, is a life full of accomplishment. But Thompson didn’t stop there. He was also an avid naturalist. In 1905, he collected fishes, apparently just for fun, from the Tortugas Archipelago of Florida, and co-authored a paper on his efforts with the dean of American ichthyology himself, David Starr Jordan. But his true passion was reptiles. His friends called him “Snake” Thompson, and he actually used his herpetological interests as cover for a spy mission during the Philippine-American War (1909–1911). Under the guise of studying coastal reptiles and amphibians throughout the Japanese Empire, Thompson was actually charting invasion routes for the U.S. military. It wasn’t all covert work, however, for Thompson described a new genus of frog (*Babina*) from the Ryukyu Islands.

Back in San Diego, Thompson helped found the Zoological Society of San Diego—which became the world-famous San Diego Zoo—in 1916. He supervised the construction of a reptile house and planned much of the Zoo’s education programs. When a Kodiak bear that served as a mascot on a Navy ship outgrew its quarters, Thompson placed the bear in the front seat of his car and drove it to the Zoo.

In 1923, Thompson crossed paths with a 12-year-old L. Ron Hubbard, the founder of Scientology. Hubbard said that Thompson sparked his interest in the human mind and ultimately served as one of his inspirations for Dianetics and Scientology. Hubbard said that Thompson told him, “If it’s not true for you, it’s not true.”

The same year he met Hubbard, Thompson traveled to Guam and dabbled in archaeology. He is credited with obtaining new information about the Chamorros people at the time of Magellan’s visit in 1521.

Thompson the neurosurgeon eventually became Thompson the psychoanalyst. He was fascinated by the ideas and techniques of Sigmund Freud, underwent psy-

chotherapy himself, and formed his own psychoanalytic practice. He published papers with titles such as “Symbolism in the Chinese Written Language” and “Psychology in Primitive Buddhism.” Sometimes he used the thinly disguised pseudonym “Joe Tom Sun.” (Thompson was apparently fond of pseudonyms; the Japanese grass lizard *Takydromus kuehnei* and the forest skink *Spenomorphus kuehnei* were both named for Victor Kühne, an alias used by Thompson.)

And just because his life wasn’t full enough, Thompson found time to pursue one other passion: Breeding Siamese and Burmese cats.

Two fishes are named in Thompson’s honor. In 1904, David Starr Jordan named the goby *Gnatholepis thompsoni*, which Thompson collected in the Tortugas. In 1908, Jordan & Richardson named the worm eel *Muraenichthys thompsoni*, which Thompson collected in Manila Bay of the Philippines, presumably during his “spy” mission through the Japanese Empire. A third fish species would have been named for Thompson except that he asked it be named for someone else. In 1904, Thompson was courting a painter named Emilia Kalisher. Apparently, the gesture worked. Shortly after the labrid blenny *Labrisomus kalisheriae* was described, Miss Kalisher became Mrs. Thompson.

Thompson died in San Francisco from a heart attack in 1943. He left \$10,000 to one of his cats.

known to have left the substrate and live in midwater (the first being *Benthenchelys cartieri*)

***Neenchelys diaphora* Ho, McCosker & Smith 2015** *diáphoros* (Gr. διάφορος), different, initially recognized as being closely similar to *N. pelagica* but confirmed to be different with newly collected specimens [proposed in 2013 but not made available until 2015]

***Neenchelys gracilis* Ho & Loh 2015** Latin for slender or slim, referring to its very slim body

***Neenchelys mccoskeri* Hibino, Ho & Kimura 2013** in honor of American ichthyologist John E. McCosker (b. 1945), California Academy of Sciences, for his “great” contributions to eel systematics and for allowing the authors to describe this species, which he first recognized in 1999

***Neenchelys microtretus* Bamber 1915** *micro-*, from *mikrós* (Gr. μικρός), small; *trētós* (Gr. τρητός), perforated (i.e., with holes), probably referring to its small gill openings



*Neenchelys mccoskeri*, holotype, 512 mm TL. From: Hibino, Y., H.-C. Ho and S. Kimura. 2012. A new worm eel *Neenchelys mccoskeri* (Anguilliformes: Ophichthidae) from Taiwan and Japan. *Ichthyological Research* 59 (4): 342–346.

***Neenchelys nudiceps* Tashiro, Hibino & Imamura 2015** *nudus* (L.), naked or bare; *-ceps* (Neo-Latin), headed, referring to the smooth (without papillae) upper and lateral surfaces of its snout

***Neenchelys parvipectoralis* Chu, Wu & Jin 1981** *parvus* (L.), little; *pectoralis* (L.), pectoral, referring to “smaller and weaker” pectoral fins compared with *N. buitendijki*

***Neenchelys pelagica* Ho, McCosker & Smith 2015** *pelagic*, from *pélagos* (Gr. πέλᾱγος), sea, referring to its mesopelagic (vs. benthic) habitat [proposed in 2013 but not made available until 2015]

***Neenchelys similis* Ho, McCosker & Smith 2015** Latin for like or similar, referring to its similarity to *N. daedalus* [proposed in 2013 but not made available until 2015]

### ***Pseudomyrophis***

**Wade 1946**

*pseudo-*, from *pseúdēs* (Gr. ψεύδης), false, i.e., although this genus may superficially resemble *Myrophis*, such an appearance is false

***Pseudomyrophis atlanticus* Blache 1975** *-icus* (L.), belonging to: referring to its distribution in the eastern tropical Atlantic

***Pseudomyrophis frio* (Jordan & Davis 1891)** named for Cape Frio, near Rio de Janeiro, Brazil, type locality

***Pseudomyrophis fugesae* McCosker, Böhlke & Böhlke 1989** in honor of scientific illustrator Mary H. Fuges (1916–2010), for her “artistic ability ... meticulous attention to detail ... and her patience and encouragement throughout the preparation” of the eel volume of “Fishes of the Western North Atlantic” series

***Pseudomyrophis micropinna* Wade 1946** *micro-*, from *mikrós* (Gr. μικρός), small; *pinna* (L.), fin, referring to its minute pectoral fins

***Pseudomyrophis nimius* Böhlke 1960** Latin for excessive, probably referring to its “exceedingly elongate” body and/or greater length ( up to 323 mm) compared with *P. micropinna* (up to 139 mm)



*Pseudomyrophis nimius*, paratype, 248 mm TL. Illustration by Steven P. Gigliotti. From: Böhlke, J. E. 1960. A new ophichthid eel of the genus *Pseudomyrophis* from the Gulf of Mexico. *Notulae Naturae* (Philadelphia) No. 329: 1–8.

### ***Pylorobranchus***

**McCosker & Chen 2013**

*pylōrós* (Gr. πυλωρός), gatekeeper; *branchus*, from *bránchia* (Gr. βράγχια), gills, referring to the lappet-like structure located before its gill opening

***Pylorobranchus hearstorum* McCosker 2014** *-orum* (L.), commemorative suffix, plural: in honor of William (b. 1949) and Margaret (b. 1958) Hearst, friends and philanthropists, who sponsored expedition that collected holotype

***Pylorobranchus hoi* McCosker, Lo & Lin 2013** in honor of Taiwanese ichthyologist Hsuan-Ching Ho (b. 1978), friend and colleague, who has studied eels and many other fishes of Taiwan

### ***Schismorhynchus***

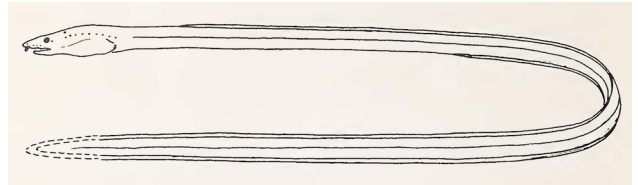
**McCosker 1970**

*schisma* (Gr. σχίσμα), split or cleft; *rhýnchos* (Gr. ῥύγχος), snout, referring to the prominent toothed groove on the underside of its snout



*Pylorobranchus hearstorum*, holotype, female, 1218 mm TL. Photograph by David Catania. From: McCosker, J. E. 2014. A gigantic deepwater worm eel (Anguilliformes: Ophichthidae) from the Verde Island Passage, Philippine Archipelago. In: G. C. Williams and T. M. Gosliner (eds.), *The Coral Triangle. The 2011 Hearst Philippine Biodiversity Expedition*. California Academy of Sciences, San Francisco. 1–592.

***Schismorhynchus labialis* (Seale 1917)** Latin for of the lips, presumably referring to its “abnormally large [nostrils] resembling two large curved fangs hanging down from the upper lips”



Possibly the first-published illustration (58 years after its description) of *Schismorhynchus labialis*. From: Randall, J. E. and J. E. McCosker. 1975. The eels of Easter Island with a description of a new moray. *Contributions in Science* (Los Angeles) No. 264: 1–32.

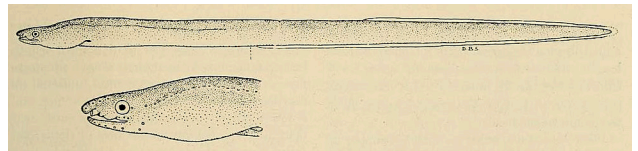
### ***Schultzidia***

**Gosline 1951**

*-idia* (L. suffix), having the nature of: Leonard P. Schultz (1901–1986), Curator of Fishes, U.S. National Museum, who co-described the type species, *S. johnstonensis*

***Schultzidia johnstonensis* (Schultz & Woods 1949)** *-ensis*, Latin suffix denoting place: Johnston Island, Central Pacific, type locality

***Schultzidia retropinnis* (Fowler 1934)** *retro-* (L.), back; *pinnis*, Neo-Latin adjective of *pinna* (L.), fin, referring to the posterior “insertion” of its dorsal fin



*Schultzidia johnstonensis*, holotype, 145 mm. Illustration by Dorothea B. Schultz. From: Schultz, L. P. and L. P. Woods. 1949. Keys to the genera of echelid eels and the species of *Muraenichthys* of the Pacific, with two new species. *Journal of the Washington Academy of Sciences* 39 (5): 169–174.

### ***Scolecenchelys***

**Ogilby 1897**

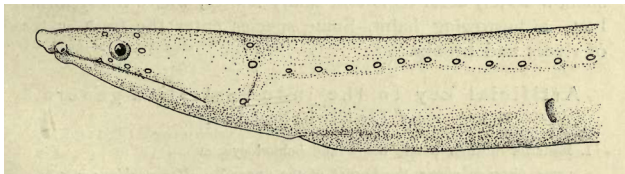
*skōlēx* (Gr. σκώληξ), worm, referring to worm-like shape of *S. australis*; *énchelys* (Gr. ἔγχελυς), eel

***Scolecenchelys acutirostris* (Weber & de Beaufort 1916)** *acutus* (L.), sharp or pointed; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to its “very pointed and prominent snout”

***Scolecenchelys aoki* (Jordan & Snyder 1901)** in honor of Kumakichi Aoki, fisherman and assistant to Kakichi Mitsukuri in the Marine Laboratory at Misaki, “one of the best [fish] collectors in Japan” [presumably a noun in apposition, without the patronymic “’”]

***Scolecenchelys australis* (Macleay 1881)** Latin for southern, described from Australia, near Sydney





*Scolecenchelys acutirostris*, 92 mm TL. Illustration by Joan François Obbes. From: Weber, M. and L. F. de Beaufort. 1916. The fishes of the Indo-Australian Archipelago. III. Ostariophys: II Cyprinoidea, Apodes, Synbranchi. E. J. Brill, Leiden. v. 3: i–xv + 1–455.

***Scolecenchelys borealis* (Machida & Shioyaki 1990)** Latin for northern, referring to its northern distribution (Western North Pacific) compared with congeners

***Scolecenchelys brevicaudata* Hibino & Kimura 2015** *brevis* (L.), short; *caudata* (L.), tailed, referring to its relatively shorter tail compared with congeners

***Scolecenchelys breviceps* (Günther 1876)** *brevis* (L.), short; *-ceps* (Neo-Latin), headed, referring to its shorter head compared with *Muraenichthys* (= *Scolecenchelys*) *macropterus*

***Scolecenchelys castlei* McCosker 2006** in honor of ichthyologist Peter H. J. Castle (1934–1999), Victoria University (Wellington, New Zealand), who recognized this eel as distinct but did not live to complete a description

***Scolecenchelys chilensis* (McCosker 1970)** *-ensis*, suffix denoting place: Chile, indicating the offshore islands from which this species was taken, the first species of genus known from the New World

***Scolecenchelys cookei* (Fowler 1928)** in honor of American conchologist Charles Montague Cooke, Jr. (1874–1948), for his “unselfish interest and influence in the many scientific projects which have their center in the Bishop Museum at Honolulu,” for the inception of Fowler’s monograph on Hawaiian fishes, and the “encouragement of his steadfast friendship,” through whom Fowler was “enabled to study new and interesting fishes, many of them the most beautiful of their kind”

***Scolecenchelys fuscipennis* McCosker, Ide & Endo 2012** *fuscus* (L.), dusky, dark or swarthy; *penis* (L.), tail, referring to prominent black spot on posterior tail region

***Scolecenchelys fuscogularis* Hibino, Kai & Kimura 2013** *fuscus* (L.), dusky, dark or swarthy; *gularis* (L.), of the throat, referring to its dark branchial basket

***Scolecenchelys godeffroyi* (Regan 1909)** in honor of the Museum Godeffroy (Hamburg, Germany), where holotype was housed, and/or the museum’s founder, shipping magnate Johann Cesar VI. Godeffroy (1813–1885), who commissioned natural history collections in Australia and the South Seas

***Scolecenchelys gymnota* (Bleeker 1857)** bare-backed, from *gymnós* (Gr. γυμνός), bare or naked, and *nōtos* (Gr. νῶτος), back, probably referring to its rudimentary dorsal fin, giving the appearance of a bare or naked dorsal surface

***Scolecenchelys iredalei* (Whitley 1927)** in honor of British-born Australian ornithologist-malacologist Tom Iredale (1880–1972), Australian Museum, who accompanied Whitley on a collecting trip to Michaelmas Cay, Great Barrier Reef, type locality

***Scolecenchelys laticaudata* (Ogilby 1897)** *latus* (L.), wide or broad; *caudata* (L.), tailed, referring to its anal and dorsal fins “expanded and fan-shaped” around the tip of the tail

***Scolecenchelys macroptera* (Bleeker 1857)** long-finned, from *makrós* (Gr. μακρός), long or large, and *ptera*, from *pterón* (Gr. πτερόν) or *ptéryx* (πτέρυξ), fin, referring to its longer dorsal fin, which begins near the gill openings, compared with *Muraenichthys gymnotus* (= *Scolecenchelys gymnota*)

***Scolecenchelys nicholsae* (Waite 1904)** in honor of Mary Nichols (1846–1923), Lord Howe Island, wife of Thomas Nichols, a whaler captain who collected and/or provided many Australian fishes for Waite, and her daughters for the “many kindnesses” he received [preferably spelled

*nicholsarum* since name honors more than one person, but ICZN 32.5.1 forbids such a correction]

***Scolecenchelys profundorum* (McCosker & Parin 1995)** Latin for “out of the depths,” referring to its deepwater (310 m) habitat

***Scolecenchelys puhioilo* (McCosker 1979)** from the Hawaiian *puhi oilo*, “small eels about as large in diameter as a finger” (a delicacy among ancient Hawaiians), referring to its body width (7.5–15 mm)

***Scolecenchelys robusta* Hibino & Kimura 2015** Latin for fat or stout, referring to its robust body, i.e., body depth deeper than that of its congeners

***Scolecenchelys vermiformis* (Peters 1866)** *vermis* (L.), worm; *formis*, Neo-Latin scientific adjective of *forma* (L.), shape or form, referring to its worm-like shape

***Scolecenchelys xorae* (Smith 1958)** of the Xora River (specifically, its mouth), Transkei, South Africa, type locality

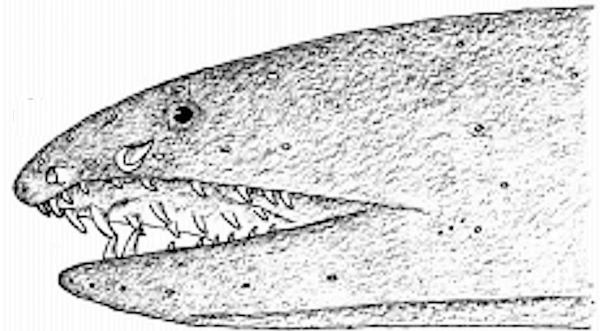
## Skythrenchelys

Castle & McCosker 1999

*skythrós* (Gr. σκυθρός), angry or sullen, referring to the facial expressions of both species; *énchelys* (Gr. ἔγχελυς), eel

***Skythrenchelys macrostomus* (Bleeker 1864)** large-mouthed, from *makrós* (Gr. μακρός), long or large, and *stóma* (Gr. στόμα), mouth, referring to wide cleft of mouth, reaching behind eye

***Skythrenchelys zabra* Castle & McCosker 1999** from *zabrós* (Gr. ζαβρός), gluttonous, referring to its ability to ingest very large prey



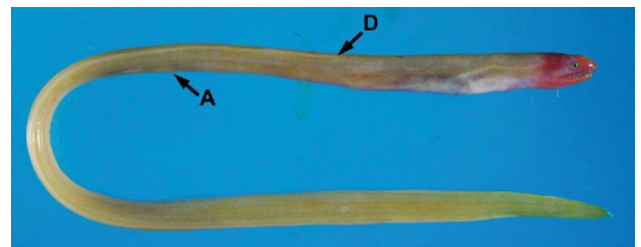
*Skythrenchelys zabra*, holotype, 239 mm TL. From: Castle, P. H. J. and J. E. McCosker. 1999. A new genus and two new species of Myrophine worm-eels, with comments on *Muraenichthys* and *Scolecenchelys* (Anguilliformes: Ophichthidae). Records of the Australian Museum 51 (2–3): 113–122.

## Sympenchelys

Hibino, Ho & Kimura 2015

*sympiézein* (Gr. συμπιέζειν), compress, referring to its compressed body and neural and haemal spines; *énchelys* (Gr. ἔγχελυς), eel

***Sympenchelys taiwanensis* Hibino, Ho & Kimura 2015** *-ensis*, Latin suffix denoting place: known from northeastern and southwestern Taiwan



*Sympenchelys taiwanensis*, holotype, 258.8 mm TL. A = position of anus. D = origin of dorsal fin. From: Hibino, Y., H.-C. Ho and S. Kimura. 2015. A new genus and species of worm eels, *Sympenchelys taiwanensis* (Anguilliformes: Ophichthidae: Myrophinae), from the northwestern Pacific Ocean. Zootaxa 4060 (1): 41–48.