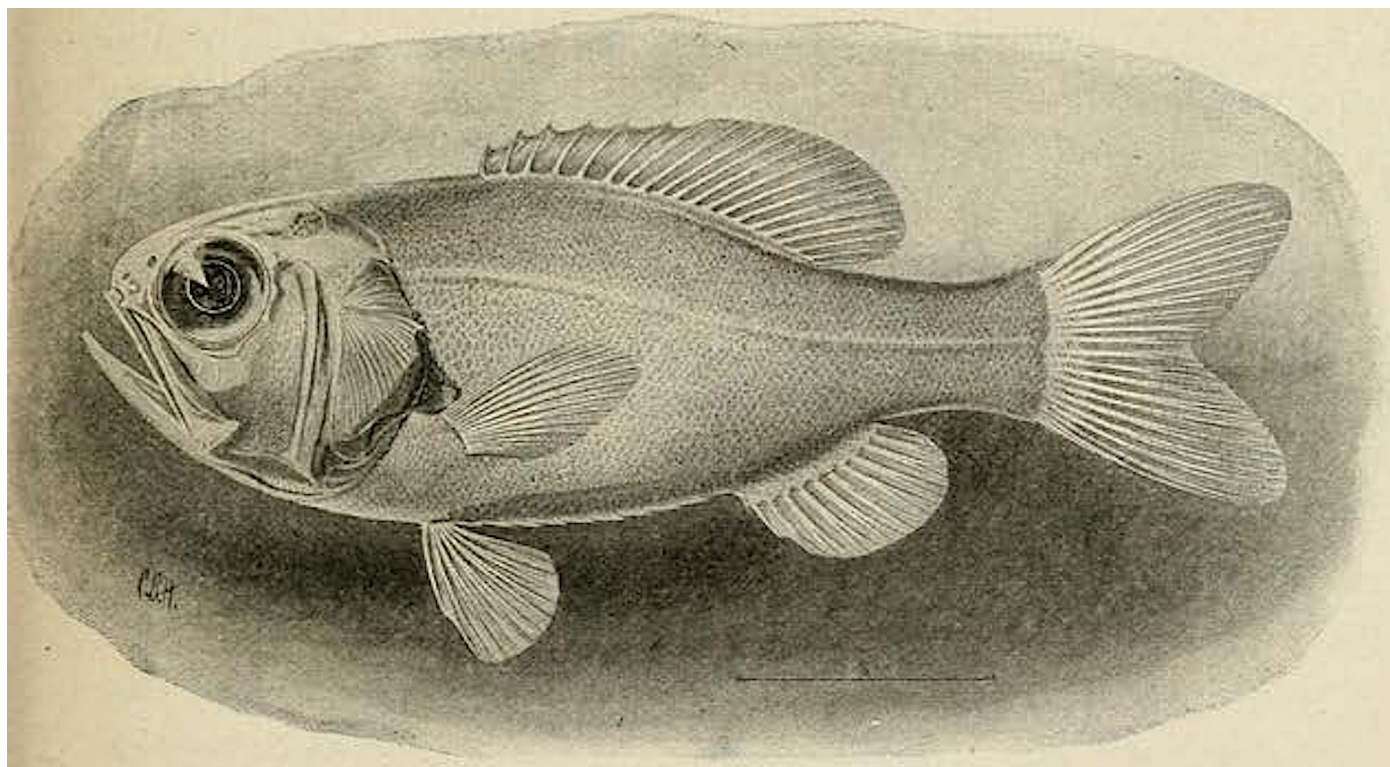


Order TRACHICHTHYIFORMES

Roughies or Slimeheads

Family TRACHICHTHYIDAE

Bleeker 1856



Aulotrachichthys prosthemioides. Illustration by Charles Bradley Hudson. From: Jordan, D. S. and H. W. Fowler. 1902. A review of the berycoid fishes of Japan. Proceedings of the United States National Museum 26 (1306): 1–21.

Aulotrachichthys

Fowler 1938

aulós (αὐλός), flute or tube, referring to “subcutaneous silvery-gray striated tubes and areas along lower surface of body” of *A. latus*; *Trachichthys*, type genus of family

***Aulotrachichthys argyrophanus* (Woods 1961)** *árgyros* (ἄργυρος), white metal (i.e., silver); *phanós* (φανός), light or torch, referring to silvery white reflections on cheeks, striated areas at base of pectoral fins, and along lower sides

***Aulotrachichthys atlanticus* (Menezes 1971)** *-icus* (L.), belonging to: referring to its known distribution in the Atlantic Ocean off southern Brazil

***Aulotrachichthys heptalepis* (Gon 1984)** *heptá* (ἑπτὰ), seven; *lepís* (λεπίς), scale, referring to 7–8 large ventral scutes between anus and anal-fin origin

***Aulotrachichthys latus* (Fowler 1938)** Latin for wide or broad, allusion not explained, perhaps referring to its “low, broadly convex” interorbital

***Aulotrachichthys novaezelandicus* (Kotlyar 1980)** *-icus* (L.), belonging to: New Zealand, described from New Zealand waters in the South Pacific

***Aulotrachichthys nyx* Su, Ho & Lin 2023** named for Nyx, Greek goddess of night, referring to overall darker appearance compared with congeners

***Aulotrachichthys prosthemioides* (Jordan & Fowler 1902)** presumably a Latinization and misspelling of *prothesmios* (προθέσμιος), beforehand

or forward, referring to anterior insertion of the vent, in front of the abdominal serrae and between the ventral fins

***Aulotrachichthys pulsator* Gomon & Kuitert 1987** Latin for striker or beater, referring to its ability to make click-like sounds when disturbed

***Aulotrachichthys sajademalensis* (Kotlyar 1979)** *-ensis*, Latin suffix denoting place: Saya de Malha Bank, Indian Ocean, type locality

***Aulotrachichthys spiralis* Matsunuma, Ujihara & Endo 2023** Neo-Latin for spiral, referring to the longitudinal helical ridges on the fin spines of large specimens

***Aulotrachichthys titan* Matsunuma, Ujihara & Endo 2023** *titán* (τιτάν), one of the Titans (giant deities in Greek mythology), representing brute force and large size, this species having a larger head and body compared with most congeners

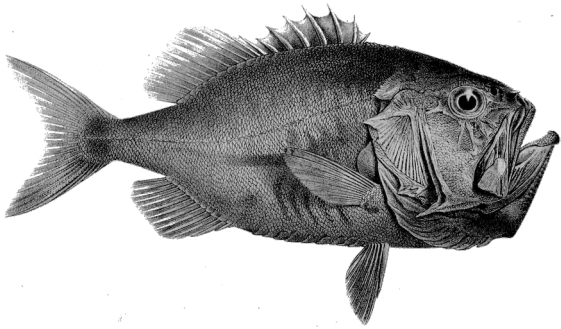
Gephyroberyx

Boulenger 1902

géphyra (γέφυρα), bridge; *Beryx*, a genus of beryciform fishes, presumably reflecting Boulenger’s belief that it is a transitional or intermediate genus between *Trachichthys* and squirrelfishes (*Holocentrus* or

Myripristis, both now placed in Holocentriformes), all of which were classified in one family (Berycidae) at the time

***Gephyroberyx darwinii* (Johnson 1866)** in honor of Charles Darwin (1809–1889), an “accomplished man of science ... to whom naturalists are greatly indebted, amongst many other labours, for an excellent monograph on the Cirripedia [barnacles]”



Gephyroberyx darwini. Illustration by Joseph Smit. From: Johnson, J. Y. 1866. Description of *Trachichthys darwini*, a new species of berycoid fish from Madeira. Proceedings of the Zoological Society of London 1866 (2): 311–315, Pl. 32.

***Gephyroberyx japonicus* (Döderlein 1883) -icus** (L.), belonging to Japan: described from Tokyo, Japan

Hoplostethus Cuvier 1829

hóplon (ὄπλον), shield or armor; *stéthos* (στῆθος), breast or chest, referring to bony plates on abdomen, each ending in a retrorse spine

Subgenus ***Hoplostethus***

***Hoplostethus abramovi* Kotlyar 1986** in honor of friend and fellow Russian ichthyologist Alexey Aleksandrovich Abramov, for “many years of working together” (translation)

***Hoplostethus confinis* Kotlyar 1980** Latin for bordering or adjoining, referring to its similarity to (or affinity with) *H. mediterraneus*

***Hoplostethus crassispinus* Kotlyar 1980** *crassus* (L.), fat or stout; *spinus* (L.), spine, referring to its thick dorsal-, anal- and pelvic-fin spines

***Hoplostethus druzhinini* Kotlyar 1986** in honor of fisheries scientist Anatoly Dmitrievich Druzhinin (1926–1979), All-Russian Research Institute of Fisheries and Oceanography (VNIRO), for his work on fishes of the Indian Ocean (where this species occurs)

***Hoplostethus fedorovi* Kotlyar 1986** in honor of Vladimir Vladimirovich Fedorov (1939–2011), Zoological Institute, St. Petersburg, a “great expert” (translation) on Pacific fishes

***Hoplostethus gigas* McCulloch 1914** *gigas* (γίγας), giant, the largest species of the genus, reportedly reaching 525 mm SL

***Hoplostethus grandperrini* Roberts & Gomon 2012** in honor of René Grandperrin, retired chief scientist of ORSTOM (Office de la Recherche Scientifique et Technique d’Outre-Mer), “ardent” fish researcher and leader of deepwater fish explorations off New Caledonia, for his “strong” support for collaborative fieldwork between French and New Zealand scientists

***Hoplostethus japonicus* Hilgendorf 1879 -icus** (L.), belonging to Japan: known only from the western North Pacific of Japan

***Hoplostethus latus* McCulloch 1914** Latin for wide or broad, proposed as a deeper-bodied form of *H. mediterraneus*

***Hoplostethus marisrubri* Kotlyar 1986** *maris*, genitive of *mare* (L.), sea; *rubri*, genitive plural or nominative/vocative plural masculine form of *ruber* (L.), red, i.e., of the Red Sea, where it is endemic

***Hoplostethus mediterraneus* Cuvier 1829** named for the Mediterranean Sea at Nice, France, type locality

***Hoplostethus mediterraneus intermedius* Hector 1875** Latin for intermediate, described as intermediate in characters between *Trachichthys australis* and *Optivus elongatus*, its presumed congeners at the time

***Hoplostethus mediterraneus sonodae* Kotlyar 1986** in honor of Pearl Sonoda (1918–2015), senior curatorial assistant in ichthyology, California Academy of Sciences, who, along with Loren P. Woods, provided the data on which this taxon is based in 1973 [name proposed by Quéro in 1979 but without a description]

***Hoplostethus mediterraneus trunovi* Kotlyar 1986** in honor of ichthyologist Ivan Andreevich Trunov (1936–2005), Atlantic Research Institute of Fisheries and Oceanography, for his many works on the fishes of the southeast Atlantic

***Hoplostethus melanopeza* Roberts & Gomon 2012** *mélanos* (μέλανος), genitive of *mélas* (μέλας), black; *péza* (πέζα), border or edge, referring to characteristic black edge on all fins of large individuals

***Hoplostethus mikhailini* Kotlyar 1986** in honor of Russian ichthyologist Sergey Vladimirovich Mikhailin (1943–1981), for his contribution to the study of fishes off southern Africa [biographical footnote: Mikhailin died while saving people from a burning train]

***Hoplostethus occidentalis* Woods 1973** Latin for western, presumably referring to its more westerly distribution (e.g., Gulf of Mexico) compared with congeners in the Western North Atlantic

***Hoplostethus pacificus* Garman 1899 -icus** (L.), belonging to: eastern Pacific Ocean off the Galápagos Islands, where it is endemic

***Hoplostethus ravurictus* Gomon 2008** *ravus* (L.), grayish yellow; *rictus* (L.), mouth opened wide, referring to its pale buccal cavity, which contrasts with black lining of mouth found in most other species of the subgenus *Hoplostethus*

***Hoplostethus rifti* Kotlyar 1986** named for the Russian fishery research vessel *Rift*, which collected holotype

***Hoplostethus robustispinus* Moore & Dodd 2010** *robustus*, Latin for oak or oaken and, by extension, hard, firm or solid (but often used by ichthyologists to mean fat or stout); *spinus* (L.), spine, referring to its “extremely thickened” fin spines

***Hoplostethus roseus* Su, Lin & Ho 2022** Latin for rosy or pink, referring to rosy coloration dorsally on body and on dorsal, pectoral and caudal fins of fresh specimens

***Hoplostethus vniro* Kotlyar 1995** named for the All-Russian Research Institute of Fisheries and Oceanography (VNIRO), where Kotlyar worked for 20 years and which sponsored expedition that collected holotype

Subgenus ***Aulohoplostethus*** Fowler 1938

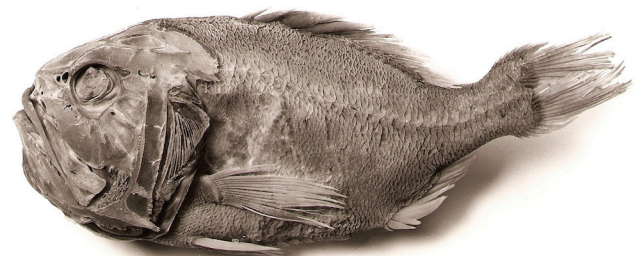
a subgenus of *Hoplostethus* with *aulós* (αὐλός), flute or tube, referring to “silvery lateral tubelike striate areas” on chest, breast, prepectoral region, and along abdominal edge

***Hoplostethus metallicus* Fowler 1938** Latin for metallic, referring to its shining metallic dusky sheen, described as “peculiar” and “likely luminous”

Subgenus ***Leiogaster*** Weber 1913

leíos (λεῖος) smooth; *gastér* (γαστήρ), belly or stomach, referring to rounded abdomen, compared to serrated abdomen of *Trachichthys* and most other species in *Hoplostethus*

***Hoplostethus cadenati* Quéro 1974** in honor of French ichthyologist Jean Cadenat (1908–1992), Director, Marine Biological Section of the Institut Français d’Afrique Noire (Gorée, Senegal), who was the first to recognize this species as distinct



Hoplostethus robustispinus, holotype, 340.5 mm SL. Photo by William K. Sacco. © 1995 Yale University. From: Moore, J. A. and K. A. Dodd. 2010. A new species of the roughy genus *Hoplostethus* (Teleostei: Trachichthyidae) from the Philippines. Bulletin of the Peabody Museum of Natural History 51 (1): 137–144.

Hoplostethus melanopterus Fowler 1938 black-finned, from *mélanos* (μέλανος), genitive of *mélas* (μέλας), black, and *pterus*, from *pterón* (πετρόν) or *ptéryx* (πτέρυξ), wing or fin, referring to its “dark to blackish” paired fins

Hoplostethus melanopus (Weber 1913) *mélanos* (μέλανος), genitive of *mélas* (μέλας), black; *póús* (πούς), foot (homologous to the ventral fins), referring to its black ventral fins

Hoplostethus mento (Garman 1899) from *mentum* (L.), chin, allusion not explained, perhaps referring to “Snout longer than the eye, blunt, curving steeply to the crown, chin vertical in the anterior halves of the mandibles”

Hoplostethus platynotus Su, Kotlyar, Lin, Kawai & Ho 2024 *platýs* (πλατύς), flat; *nótos* (νώτος), back, referring to its “unique” flattened and straight dorsal profile in front of dorsal-fin origin

Hoplostethus rubellopterus Kotlyar 1980 *rubellus* (L.), reddish; *pterus*, from *pterón* (πετρόν) or *ptéryx* (πτέρυξ), wing or fin, referring to reddish coloration of pectoral fins

Hoplostethus shubnikovi Kotlyar 1980 in honor of Dar Alexeevich Shubnikov, All-Russian Research Institute of Fisheries and Oceanography (VNIRO), for his help in Kotlyar’s study of trachichthyids

Hoplostethus tenebricus Kotlyar 1980 Latin for dark or gloomy, referring to its general coloration

Subgenus **Macrohoplostethus**
Kotlyar 1986

macro-, from *makrós* (μακρός), long or large, i.e., a large *Hoplostethus*, referring to size of *H. atlanticus* and greater value of certain meristic features (vertebrae, pyloric caeca)

Hoplostethus atlanticus Collett 1889 *-icus* (L.), belonging to: northeastern Atlantic Ocean, type locality

Hoplostethus fragilis (de Buen 1959) Latin for fragile or brittle, allusion not explained, perhaps referring to fragile bones (“formaciones oseas débiles”) of the skull

Optivus

Whitley 1947

Latin for chosen, allusion not explained nor evident, “possibly indicating that the name was selected at random” (Paulin & Roberts, *Rockpool Fishes of New Zealand*, 1992)

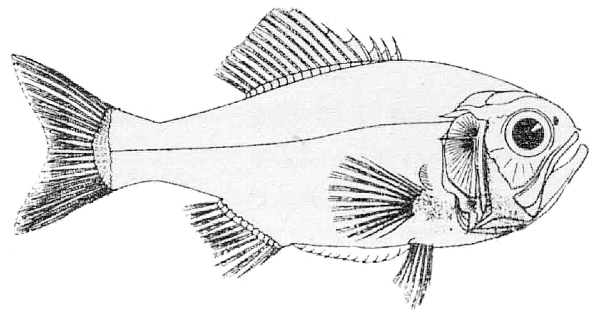
Optivus agastos Gomon 2004 apparent misspelling of *agástōr* (ἀγαστώρ), from the same womb or, per Gomon, “near kinsman,” referring to its similarity to and presumed close relationship with *O. elongatus* (*agastós* [αγαστός] means admirable)



Optivus agastos, holotype, 90.3 mm SL. From: Gomon, M. F. 2004. Two new species of roughly (Trachichthyidae: *Optivus*) from coastal waters of Southern Australia. Records of the Australian Museum 56 (2): 173–178.

Optivus agrammus Gomon 2004 *á-* (ᾶ), privative, i.e., without; *grammus*, scientific Neo-Latin derived from *grammḗ* (γραμμῆ), line or stroke of the pen, referring to absence of stripes on caudal fin

Optivus elongatus (Günther 1859) Latin for prolonged, referring to its more elongate body compared with *Trachichthys australis*, its presumed congener at the time



Probably first-published image of *Paratrachichthys trailli*. From: Arthur, W. 1885. Notes on New Zealand fishes. Transactions and Proceedings of the New Zealand Institute 17 (for 1884): 160–172, Pl. 14.

Paratrachichthys

Waite 1899

pará (παρά), near, i.e., similar to *Trachichthys* but with the vent in front of, instead of behind, the abdominal scutes

Paratrachichthys fernandezianus (Günther 1887) *-anus* (L.), belonging to: Juan Fernández Islands of Chile, South Pacific Ocean, type locality

Paratrachichthys macleayi (Johnston 1881) in honor of William John Macleay (1820–1891), Australian politician and zoologist, “to whom Australian naturalists are indebted for much of their knowledge of the Australian fishes”

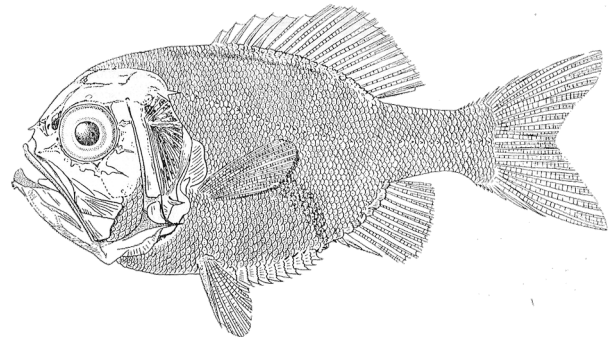
Paratrachichthys trailli (Hutton 1875) in honor of Charles Traill (1826–1891), Postmaster of Stewart Island, New Zealand (type locality), and amateur botanist-conchologist, who found the holotype “dead and floating on the surface of the water” and presented it to the Otago Museum

Parinoberyx

Kotlyar 1984

Parin, named for ichthyologist Nikolai Vasil’evich Parin (1932–2012), Russian Academy of Sciences, who greatly assisted Kotlyar in his study of beryciform fishes; *beryx*, a beryciform fish, referring to the order in which this genus had originally been placed

Parinoberyx horridus Kotlyar 1984 Latin for bristly or rough, referring to spinules on scales



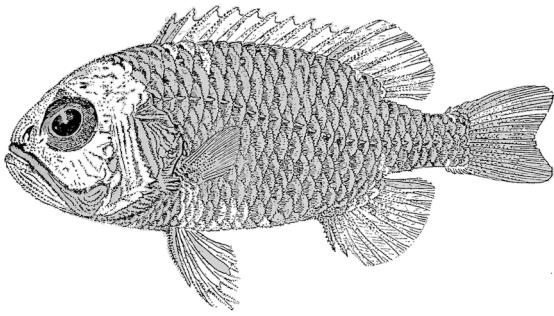
Parinoberyx horridus, holotype. From: Kotlyar, A. N. 1984. A new genus and species of fishes (Beryciformes, Trachichthyidae) from the Pacific. Zoologicheskii Zhurnal 63 (10): 1591–1594.

Sorosichthys

Whitley 1945

soros, botanical term for any multiple fleshy fruit derived from the ovaries of multiple flowers (e.g., a pineapple), referring to its rough scales; *ichthýs* (ἰχθύς), fish, reflecting Whitley’s suggested vernacular name “Little Pineapple Fish”

Sorosichthys ananassa Whitley 1945 diminutive of *Ananas*, botanical genus of the pineapple, i.e., little pineapple, reflecting Whitley’s suggested vernacular name “Little Pineapple Fish”



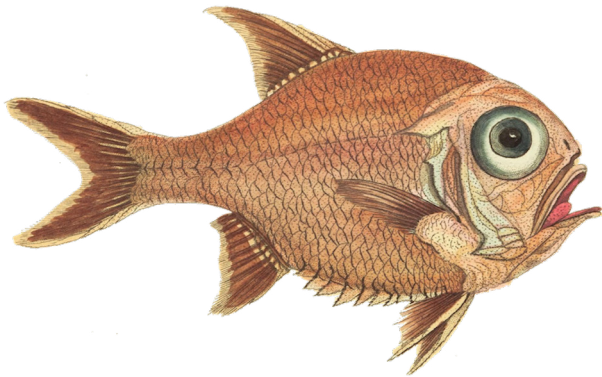
Sorosichthys ananassa, holotype. Illustration by Gilbert Percy Whitley. From: Whitley, G. P. 1945. New sharks and fishes from Western Australia. Part 2. Australian Zoologist 11 (1): 1–42, Pl. 1.

Trachichthys

Shaw 1799

trachýs (τραχύς), jagged or rough, referring to its rough-edged scales, hence the vernacular “roughy”; *ichthýs* (ἰχθύς), fish

***Trachichthys australis* Shaw 1799** Latin for southern, a fish of Australian waters



Trachichthys australis. Illustration by James Heath. From: Shaw, G. and F. P. Nodder. 1789–1813. The Naturalist's Miscellany, or coloured figures of natural objects; drawn and described from nature. J. Cooper, London. 24 vols. unnumbered pages. (This species dates from vol. 10, 1799.)