

Order HOLOCENTRIFORMES

Squirrelfishes and Soldierfishes

Family HOLOCENTRIDAE

Bonaparte 1833



Neoniphon pencei at ~70 m in Rarotonga, Cook Islands. Cropped from a video frame taken by John L. Earle. From: Copus, J. M., R. L. Pyle and J. L. Earle. 2015. *Neoniphon pencei*, a new species of holocentrid (Teleostei: Beryciformes) from Rarotonga, Cook Islands. Biodiversity Data Journal 3:e4180: 1-29.

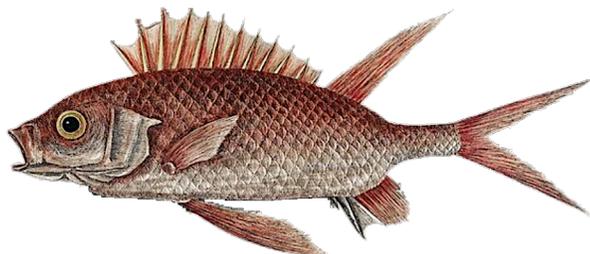
Squirrelfishes
Subfamily HOLOCENTRINAE
Bonaparte 1833

Holocentrus
Scopoli 1777

hólos (ὅλος), whole or entire; *centrus*, from *kéntron* (κέντρον), any sharp point, referring to sharp spines almost everywhere on body

***Holocentrus adscensionis* (Osbeck 1765)** -is, Latin genitive singular of: Ascension Island, South Atlantic, type locality (Osbeck consistently spelled it with a "d")

***Holocentrus rufus* (Walbaum 1792)** Latin for red or reddish, referring to its silvery red coloration



Percina marina rubra, illustration upon which description of *Holocentrus rufus* is based. From: Catesby, M. 1771. The natural history of Carolina, Florida and the Bahama Islands. 3rd ed. Vol. 2. vols. London: Printed for Benjamin White. [Also 1st ed., 1743, and 2nd ed., 1754.]

Neoniphon
Castelnau 1875

néos (νέος), new, described as "nearly allied" in general form to *Niphon* (Perciformes: Niphonidae), i.e., a new *Niphon*

***Neoniphon argenteus* (Valenciennes 1831)** Latin for silvery, referring to brilliant silver reflections on "whitish" (translation) sides (silvery in life, "whitish" may refer to its color in spirits)

***Neoniphon aurolineatus* (Liénard 1839)** *aureus* (L.), golden; *lineatus* (L.), lined, referring to yellow or golden stripes following scale rows

***Neoniphon coruscus* (Poey 1860)** Latin for sparkling, allusion not explained, perhaps referring to bright steel-blue reflections on edges of scales [often misspelled as *coruscum*]

***Neoniphon marianus* (Cuvier 1829)** Latinization of *Marian*, a Caribbean name for this species, meaning tough and lean, i.e., a fish of much bone and little flesh

***Neoniphon opercularis* (Valenciennes 1831)** Latin for opercular, presumably referring to the smallness of its opercular and preopercular spines ("la petitesse des épines du préopercule et de l'opercule")

***Neoniphon pencei* Copus, Pyle & Earle 2015** in honor of David F. Pence (b. 1956), Dive Safety Officer for the University of Hawai'i, a member of the deep-diving team that discovered this species, for his efforts to collect the type specimens

***Neoniphon sammara* (Forsskål 1775)** Arabic name for this species, derived from *Msammer* or *M'sammer*

***Neoniphon suborbitalis* (Gill 1863)** Latin for suborbital (below the eye), referring to a curved streak from tip of snout below eye and around it, "bright silvery and immaculate"

***Neoniphon vexillarius* (Poey 1860)** Latin for a standard bearer, probably referring to spinous dorsal fin, with a black vertical bar behind each ray

Sargocentron
Fowler 1904

sargós, Greek (σάργος) name of White Seabream *Diplodus sargus* (Acanthuriformes: Sparidae), allusion not explained, perhaps reflecting fact that squirrelfishes are sometimes called porgies (as are sparids); *centron*, from *kéntron* (κέντρον), any sharp point, presumably referring to coarsely serrated preopercular spine of *S. spiniferum*

***Sargocentron borodinoense* Kotlyar 2017** *-ensis*, Latin suffix denoting place: Borodino submarine elevation, Philippine Sea, type locality

***Sargocentron bullisi* (Woods 1955)** in honor of American marine biologist Harvey R. Bullis, Jr. (1924–1992), U.S. Fish and Wildlife Service, who collected type

***Sargocentron caudimaculatum* (Rüppell 1838)** *cauda* (L.), tail; *maculatum* (L.), spotted, referring to silvery white spot (often disappearing after death) dorsally on caudal peduncle at end of dorsal-fin base

***Sargocentron cornutum* (Bleeker 1854)** Latin for horned, referring to “outwardly turned thorn of the eye socket” (translation), i.e., preopercular spine

***Sargocentron diadema* (Lacepède 1802)** Latin for diadem, a cloth headband, sometimes adorned with jewels, formerly worn by monarchs in Asia Minor and other parts of the East, referring to black and white bands on anterior part of dorsal fin

***Sargocentron dorsomaculatum* (Shimizu & Yamakawa 1979)** *dorso-*, from *dorsalis* (L.), of the back; *maculatum* (L.), spotted, referring to black blotch on dorsal-fin membranes between first and third spines

***Sargocentron ensifer* (Jordan & Evermann 1903)** *ensis* (L.), sword; *-ifer*, from *fero* (L.), to have or bear, referring to a “long, strong, dagger-like spine,” one each above opercle and below opercle

***Sargocentron hastatum* (Cuvier 1829)** Latin for armed with a spear, referring to its strong preopercular spine

***Sargocentron hormion* Randall 1998** presumably a diminutive of *hórmos* (ὄρμος), necklace or per Randall “a string if things,” referring to conspicuous series of six white spots anteriorly in red spinous part of dorsal fin

***Sargocentron inaequale* Randall & Heemstra 1985** Latin for unlike, i.e., unequal, referring to variable lengths of small spines on posterior margin of preopercle

***Sargocentron iota* Randall 1998** *iota* (ι), smallest letter of Greek alphabet and hence often referring to anything small; one of the smallest members of the genus, not exceeding 80 mm SL

***Sargocentron ittodai* (Jordan & Fowler 1902)** Japanese name for this species, from *itto*, number one among many, presumably referring to its beauty, and *tai*, porgie, a common name sometimes applied to members of this genus

***Sargocentron lepros* (Allen & Cross 1983)** *leprós* (λεπρός), scaly, scabby or rough, referring to rough body texture imparted by strongly serrate scale margins

***Sargocentron macrosquamis* Golani 1984** *macro-*, from *makrós* (μακρός), long or large; *squamis*, Neo-Latin scientific adjective of *squama* (L.), scale, referring to large scales on posterior portion of operculum

***Sargocentron marisrubri* Randall, Golani & Diamant 1989** *maris*, genitive of *mare* (L.), sea; *rubri*, genitive plural or nominative/vocative plural



Sargocentron lepros, holotype, 77.1 mm SL. From: Allen, G. R. and N. J. Cross. 1983. A new species and two new records of squirrelfishes (Holocentridae) from the eastern Indian Ocean and Australia. *Revue française d'Aquariologie Herpétologie* 10 (1): 5–8.

masculine form of *ruber* (L.), red, , referring to the Red Sea, where it is endemic

***Sargocentron megalops* Randall 1998** *mégas* (μέγας), big; *óps* (ὄψ), eye, referring to its “exceptionally large” eyes

***Sargocentron melanospilos* (Bleeker 1858)** *mélanos* (μέλανος), genitive of *mélas* (μέλας), black; *spilos* (σπίλος), mark or spot, referring to large oval black spot on scaled basal part of soft portion of dorsal fin and adjacent back

***Sargocentron microstoma* (Günther 1859)** *micro-*, from *mikrós* (μικρός), small; *stóma* (στόμα), mouth, referring to small mouth compared with most congeners then placed in *Holocentrus*

***Sargocentron poco* (Woods 1965)** in honor of Mary Ann “Poco” Holloway, who prepared illustrations for many species of squirrelfishes [presumably a noun in apposition without the genitive “*ae*”]

***Sargocentron praslin* (Lacepède 1802)** named for Port Praslin, New Britain, Bismarck Archipelago, Papua New Guinea, type locality [apparently different from but near the Port Praslin for which *Myripristis pralinia* (see below) is named]

***Sargocentron punctatissimum* (Cuvier 1829)** Latin for very spotted, referring to very fine purplish dots on scales, “similar to the stings of flies” (translation)

***Sargocentron rubrum* (Forsskål 1775)** Latin for red, referring to dark-red body and dorsal surface with eight longitudinal white-red bands on sides and two longitudinal red bands on first dorsal fin

***Sargocentron seychellense* (Smith & Smith 1963)** *-ense*, Latin suffix denoting place: Seychelles, type locality and where it commonly occurs

***Sargocentron shimizui* Randall 1998** in honor of Takeshi Shimizu, Hokkaido University (Japan), for his systematic research on the Holocentridae and for providing the illustrations used in Randall’s monograph

***Sargocentron spiniferum* (Forsskål 1775)** *spina* (L.), thorn; *ferum* (L.), having or bearing, referring to its very long preopercular spine

***Sargocentron spinosissimum* (Temminck & Schlegel 1843)** Latin for very spiny or thorny, referring to numerous small spines on head

***Sargocentron tiere* (Cuvier 1829)** local name for this species in Tahiti (type locality)

***Sargocentron tiereoides* (Bleeker 1853)** *-oides*, Neo-Latin from *eídos* (εἶδος), form or shape: referring to similarity and/or close relationship to *S. tiere*

***Sargocentron violaceum* (Bleeker 1853)** Latin for violet-colored, referring to purplish-red color in life, with purplish cheek scales, light purplish-red dorsal-fin spine, and light purplish-red rays on remaining fins

***Sargocentron wilhelmi* (de Buen 1963)** in honor of Chilean biologist Ottmar E. Wilhelm (1898–1974), who collected many fishes at Easter Island (including specimens of this species) and provided good color photographs of them

***Sargocentron xantherythrum* (Jordan & Evermann 1903)** *xanthós* (ξανθός), yellow; *erythrum*, from *erythrós* (ἐρυθρός), red; Jordan & Jordan (1922)¹ acknowledge name is a misnomer since species has white (not yellow) stripes across a bright-red body

¹ Jordan, D. S. and E. K. Jordan. 1922. A list of the fishes of Hawaii, with notes and descriptions of new species. *Memoirs of the Carnegie Museum* 10 (1): 1–92, Pls. 1–4.

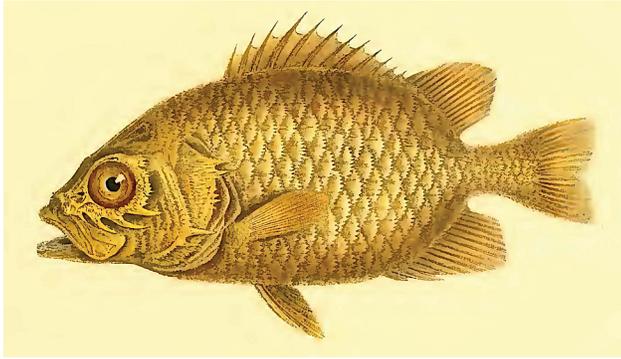
Soldierfishes
Subfamily MYRIPRISTINAE
Nelson 1955

Corniger

Agassiz 1831

cornis (L.), horn; *-iger* (L.), to have or bear, presumably referring to three large, backward-pointing spines below each eye

***Corniger spinosus* Agassiz 1831** Latin for thorny, presumably referring to any or all of the following: three backward-pointing spines under each eye, spines on snout, strong spines on preopercle and opercle, and strong dorsal- and anal-fin spines



Corniger spinosus. From: Spix, J. B. von and L. Agassiz 1829-31. *Selecta genera et species piscium quos in itinere per Brasiliam annis MDCCCXXVII-MDCCCXXX jussu et auspiciis Maximiliani Josephi I. Monachii* (Munich). Part 1: i-xvi + i-ii + 1-6 + 1-82, Pls. 1-48, Part 2: 83-138, Pls. 49-101. [Part 1 published June 1829, part 2 Jan. 1831.]

Myripristis

Cuvier 1829

myrios (μυρίος), countless or ten-thousand and *pristis*, saw; per Cuvier and Valenciennes (1829): "We give this genus the name of *Myripristis*, which means ten-thousand saws, because of all the pieces that cover the cheek and operculum, and all the scales with their serrated edges, for that is what strikes one most as the primary character of these singular fishes" (translation)

***Myripristis adusta* Bleeker 1853** Latin for sunburnt or brown, allusion not explained, perhaps referring to black outer border of dorsal, anal and caudal fins

***Myripristis amaena* (Castelnu 1873)** presumably a misspelling of *amoena* (L.), lovely, delightful or pleasant, presumably referring to its colors in life, which Castelnu (working from preserved juveniles) surmised were "very brilliant"

***Myripristis astakhovi* Kotlyar 1997** in honor of Dmitry Alekseevich Astakhov (b. 1953), friend and colleague in the Laboratory of Oceanic Ichthyofauna, Institute of Oceanology, Russian Academy of Sciences, who collected and provided holocentrid fishes from Vietnam

***Myripristis aulacodes* Randall & Greenfield 1996** *aulakōdēs* (αὐλακώδης), furrowed, referring to narrow but deep mucous channels on top of head

***Myripristis berndti* Jordan & Evermann 1903** in honor of German-born Louis E. (or E. Louis) Berndt (1851-?), market inspector in Honolulu, Hawai'i (USA)

***Myripristis botche* Cuvier 1829** *Botche*, local name for this species as reported in Russell's *Descriptions and figures of two hundred fishes; collected at Vizagapatam on the coast of Coromandel* (1803)

***Myripristis chryseres* Jordan & Evermann 1903** *chrysērēs* (χρυσήρης), furnished or decked with gold, referring to its golden (or yellow) dorsal, caudal and anal fins

***Myripristis clarionensis* Gilbert 1897** *-ensis*, Latin suffix denoting place: Clarion Island, one of the Revillagigedo Islands off western Mexico, where type was "captured by a booby bird, but was still in good condition when taken by us"

***Myripristis earlei* Randall, Allen & Robertson 2003** in honor of John L. Earle, Association for Marine Exploration, retired airline pilot and rebreather diver, who suspected this species differed from *M. berndti*, collected a specimen of the latter in the Marquesas, and provided an underwater photograph used in the description

***Myripristis formosa* Randall & Greenfield 1996** Latin for beautiful, described as "beautifully colored"; also named for Formosa, or Taiwan, type locality

***Myripristis gildi* Greenfield 1965** in honor of Greenfield's wife, Gildi, "whose efforts in translating numerous foreign publications have added considerably" to his revision of the genus [presumably a noun in apposition, without the genitive "ae"]

***Myripristis greenfieldi* Randall & Yamakawa 1996** in honor of ichthyologist David W. Greenfield (b. 1940), for his published and current research on the genus

***Myripristis hexagona* (Lacepède 1802)** six-sided, from *hék* (ἕξ), six, and *gōnia* (γωνία), corner or angle, referring to its body shape, which Lacepède said resembled that of an elongate hexagon

***Myripristis jacobus* Cuvier 1829** Latinization of *James*, referring to its local name *Frère-Jacques* (Brother Jim) in Martinique (type locality)

***Myripristis kochiensis* Randall & Yamakawa 1996** *-ensis*, Latin suffix denoting place: Kochi Prefecture, Japan, type locality (where fishermen caught them with gill nets)

***Myripristis kuntee* Valenciennes 1831** from *Sullanaroo-kuntee*, a local name for *M. murdjan* (which Valenciennes confused with this species) as reported in Russell's *Descriptions and figures of two hundred fishes; collected at Vizagapatam on the coast of Coromandel* (1803)

***Myripristis leiognathus* Valenciennes 1846** *leíos* (λεῖος) smooth; *gnáthos* (γνάθος), jaw, referring to lack of serrations at angle of maxilla

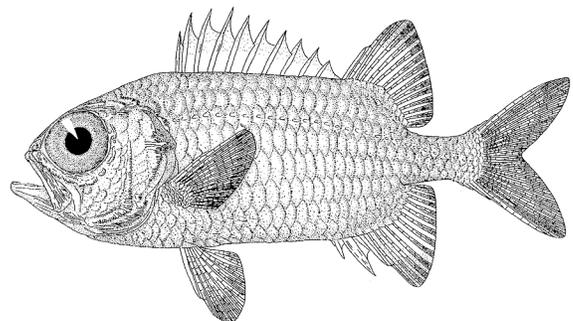
***Myripristis murdjan* (Forsskål 1775)** *murdjân*, Arabic name for this species

***Myripristis pralinia* Cuvier 1829** *-ia* (L. suffix), belonging to: presumably a Latinized, variant or incorrect spelling of Praslin, referring to Port Praslin (correctly spelled by Cuvier), New Ireland Island, Bismarck Archipelago, Papua New Guinea, type locality [apparently different from but near the Port Praslin for which *Sargocentron praslin* (see above) is named]

***Myripristis randalli* Greenfield 1974** in honor of American ichthyologist John E. Randall (1924-2020), Bishop Museum (Honolulu), who furnished type material and recognized it as a distinctive species; his "continued interest in holocentrids has resulted in many series of valuable specimens of *Myripristis* from the Pacific which he has collected as well as excellent color transparencies of many species"

***Myripristis robusta* Randall & Greenfield 1996** Latin for of oak or oaken and, by extension, hard, firm or solid (but often used by ichthyologists to mean fat or stout), referring to its robust shape, both deep- and thick-bodied

***Myripristis seychellensis* Cuvier 1829** *-ensis*, Latin suffix denoting place: Seychelles, western Indian Ocean, type locality



Myripristis kochiensis, holotype, 146.5 mm SL. From: Randall, J. E. and T. Yamakawa. 1996. Two new soldierfishes (Beryciformes: Holocentridae: *Myripristis*) from Japan. *Ichthyological Research* 43 (3): 211-222.

Myripristis tiki Greenfield 1974 Maori word for image, commonly used for wooden or stone carvings in humanoid form, in this case referring to the Mo'ai monolithic human figures on Easter Island, type locality (David W. Greenfield, pers. comm.)

Myripristis trachyacron Bleeker 1863 *trachýs* (τραχύς), jagged or rough; *ácron* (ἄκρον), summit, top or peak, referring to the roughness of its skull

Myripristis violacea Bleeker 1851 Latin for violet-colored, referring to upper-body coloration

Myripristis vittata Valenciennes 1831 Latin for banded, referring (per Valenciennes) to 5–6 blackish longitudinal bands on sides; however, species is a nearly uniform red or orange-red in life with only faint stripes on body due to slightly paler scale centers

Myripristis woodsii Greenfield 1974 in honor of Loren P. Woods (1914–1979), Curator of Fishes, Field Museum of Natural History (Chicago), who first recognized that this species comprised a distinctive species group; Woods “laid the foundations” for Greenfield’s revision, while his “extensive knowledge of the holocentrids, combined with his many helpful suggestions, made [Greenfield’s] task a much lighter one”

Myripristis xanthacra Randall & Guézé 1981 yellow-tipped, from *xanthós* (ξανθός), yellow, and *akros* (ακρος), tip or at the end, referring to distal yellow areas on soft dorsal fin, anal fin and caudal-fin lobes [originally spelled *xanthacrus*; emended by Randall & Greenfield (1996)² to agree with feminine genus]

Ostichthys

Cuvier 1829

osteo-, from *ostéon* (ὀστέον), bone; *ichthýs* (ἰχθύς), fish, allusion not explained, perhaps referring to well-developed nasal bones of adult *O. japonicus* (and congeners); manuscript name coined by Georg Heinrich von Langsdorff (1774–1852), Prussian naturalist and diplomat in Japan, who collected holotype, mentioned in passing by Cuvier, resurrected by Jordan & Evermann (1896)³ who are often credited as its authors

Ostichthys acanthorhinus Randall, Shimizu & Yamakawa 1982 *acantho-*, from *ákantha* (ἄκανθα), thorn or spine; *rhinus*, from *rhinós* (ῥινός), genitive of *rhís* (ῥίς), nose, referring to sharp spine on each nasal bone

Ostichthys alamai Matsunuma, Fukui & Motomura 2018 in honor of Ulysses B. Alama, University of the Philippines Visayas, for his “great” contributions to the authors’ and other collaborators’ surveys at Iloilo (Panay Island, Philippines) during 2013–2017, when this species was collected

Ostichthys archiepiscopus (Valenciennes 1862) Latin for archbishop, presumably alluding to *Cardinal*, its French vernacular name on Bourbon Island (type locality, now known as Réunion, east of Madagascar)

Ostichthys brachygnathus Randall & Myers 1993 *brachýs* (βραχύς), short; *gnáthos* (γνάθος), jaw, referring to short upper jaw compared to congeners

Ostichthys convexus Greenfield, Randall & Psomadakis 2017 Latin for vaulted or arched, referring to convex front of head

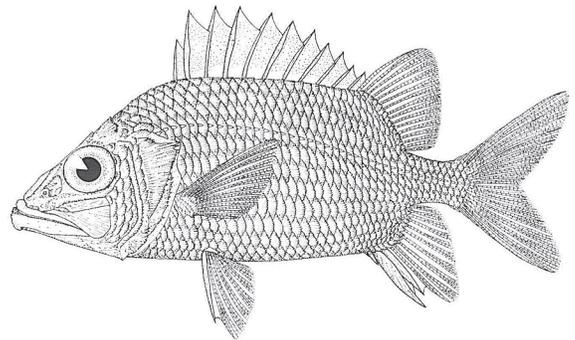
Ostichthys daniela Greenfield, Randall & Psomadakis 2017 in honor of Daniela Basili, the third author’s wife [a noun in apposition, without the genitive “ae”]

Ostichthys delta Randall, Shimizu & Yamakawa 1982 fourth letter of the Greek alphabet (Δ), referring to near-triangular shape of vomerine tooth patch

Ostichthys hypsipterygion Randall, Shimizu & Yamakawa 1982 *hypsēlós* (ὕψηλός), high; *pterygion*, diminutive of *ptéryx* (πτέρυξ), wing or fin, referring to high spinous dorsal fin

² Randall, J. E. and D. W. Greenfield. 1996. Revision of the Indo-Pacific holocentrid fishes of the genus *Myripristis*, with descriptions of three new species. *Indo-Pacific Fishes* 5: 1–61, Pls. 1–9.

³ 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–lx + 1–1240.



Ostichthys ovaloculus, holotype, 210.5 mm SL. Illustration by Takeshi Shimizu. From: Randall, J. E. and L. Wrobel. 1988. A new species of soldierfish of the genus *Ostichthys* and records of *O. archiepiscopus* and *O. sandix* from Tahiti. *Japanese Journal of Ichthyology* 35 (3): 243–246.

Ostichthys japonicus (Cuvier 1829) *-icus* (L.), belonging to: Japan, where Langsdorff (see genus) first encountered the species

Ostichthys kaianus (Günther 1880) *-anus* (L.), belonging to: Kai Islands, Indonesia, eastern Indian Ocean, type locality

Ostichthys kinchi Fricke 2017 in honor of Australian ichthyologist Jeff Kinch (b. 1965), Principal of the National Fisheries College in Kavieng, Papua New Guinea, and founder of the Nago Island Mariculture and Research Facility, which hosted the 2014 Kavieng marine biodiversity expedition; he was instrumental in the success of the expedition, which discovered several new fish and numerous new invertebrate species, including this one

Ostichthys ovaloculus Randall & Wrobel 1988 *ovalis* (L.), egg-shaped or oval; *oculus* (L.), eye, referring to distinctive oval-to-elliptical shape of eye

Ostichthys sandix Randall, Shimizu & Yamakawa 1982 Latin for vermilion, referring to its light-red coloration in life

Ostichthys sheni Chen, Shao & Mok 1990 in honor of Shih (or Shieh)-Chieh Shen, National Taiwan University, for his contribution to fish taxonomy in Taiwan; he also gave “precious opinions about undetermined species”

Ostichthys spiniger Fricke 2017 *spini-*, from *spina* (L.), thorn; *-iger* (L.), to bear, a very spiny fish overall but especially referring to forward-directed spine on nasal bone, which it shares with *O. acanthorhinus* but no other species of the genus (Ronald Fricke, pers. comm.)

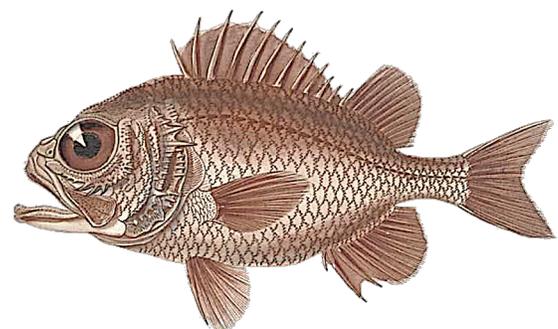
Ostichthys sufensis Golani 1984 *-ensis*, Latin suffix denoting place: Yam Suf (Sea of Reeds), Hebrew name for Red Sea, where it is endemic

Ostichthys trachypoma (Günther 1859) *trachýs* (τραχύς), jagged or rough; *póma* (πώμα), lid or cover, referring to spines covering opercle and a “rather strong spinous prominence” on operculum

Plectrypops

Gill 1862

pléktron (πλήκτρον), spur, or a tool for plucking or striking a stringed instrument; *óps* (ὄψ), eye, referring to preopercle armed with three strong teeth curved forward



Plectrypops retropinnis. From: Guichenot, A. 1855. *Peces*. Pls. 1-5. In: Sagra, R. de la: *Historia física, política y natural de la isla de Cuba*. Segunda parte. *Historia natural*. Tomo 8. Atlas de zoología. Arthus Bertrand, Paris. [description appeared in Tomo 4, 1843, plates in Tomo 8]

***Plectrypops lima* (Valenciennes 1831)** Latin for a file or rasp; “the fish is like a rasp” (translation), referring to its coarsely ctenoid scales

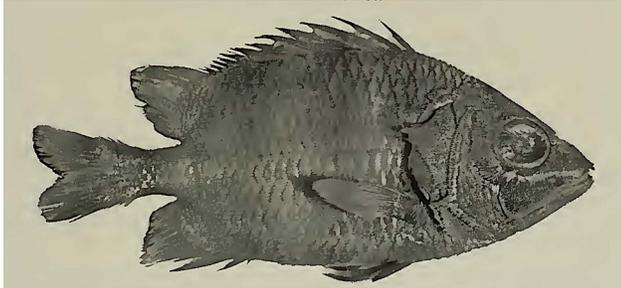
***Plectrypops retrospinis* (Guichenot 1843)** *retro-* (L.), back or behind; *spinis*, from *spinus* (L.), thorn, referring to preopercle armed with three strong teeth curved *forward* (hence making name a misnomer) [often incorrectly dated to 1853 French translation of the original Spanish text]

Pristilepis

Randall, Shimizu & Yamakawa 1982

pristis, from *pristēr* (πριστήρ), saw; *lepis* (λεπίς), scale, referring to its coarsely ctenoid scales

***Pristilepis oligolepis* (Whitley 1941)** *oligos* (ὀλίγος), few or scanty; *lepis* (λεπίς), scale, referring to fewer scales compared with presumed congeners in *Holotrachys* (= *Plectrypops*)



Pristilepis oligolepis, holotype, 131 mm SL. From: Whitley, G. P. 1941. Ichthyological notes and illustrations. Australian Zoologist 10 (1): 1–50, Pls. 1–2.