

The ETYFish Project

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COMMENTS: 

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Order SYNGNATHIFORMES (part 2 of 2)

Suborder DACTYLOPTEROIDEI

Family DACTYLOPTERIDAE Flying Gurnards

2 genera · 7 species

***Dactyloptena* Jordan & Richardson 1908**

daktylos, finger; *ptenos*, winged, presumably referring to large, wing-like pectoral fins supported by finger-like rays, similar to the fingers of bat wings

***Dactyloptena gilberti* Snyder 1909**

in honor of ichthyologist Charles Henry Gilbert (1859-1928), Stanford University

***Dactyloptena macracantha* (Bleeker 1855)**

macro-, long or large; *acantha*, spine, presumably referring to single elongate spine anterior to continuous part of spinous dorsal fin

***Dactyloptena orientalis* (Cuvier 1829)**

eastern, presumably referring to its occurrence east (Coromandel coast, India, eastern Indian Ocean) of *Dactylopterus volitans*, its presumed (and only known) congener at the time

***Dactyloptena papilio* Ogilby 1910**

butterfly, allusion not explained, perhaps referring to wing-like pectoral fins that resemble a butterfly's (when seen from above)

***Dactyloptena peterseni* (Nyström 1887)**

in honor of Julius W. Petersen, director of a telegraph company in Nagasaki, Japan, where he collected type

***Dactyloptena tiltoni* Eschmeyer 1997**

in honor of Thomas Tilton (San Francisco, California, USA), for the Tilton family's support of the research activities of the California Academy of Sciences

***Dactylopterus* Lacepède 1801**

daktylos, finger; *pterus*, fin, referring to large, wing-like pectoral fins supported by finger-like rays, similar to the fingers of bat wings

***Dactylopterus volitans* (Linnaeus 1758)**

flying, referring to its wing-like pectoral fins and/or reported (but never substantiated) ability to leap out of the water (unlikely for a benthic, heavy-bodied fish)

Family PEGASIDAE Seamoths

2 genera · 8 species

***Eurypegasmus* Bleeker 1863**

eurys, wide, allusion not explained, probably referring to wider body compared to *Pegasus*

***Eurypegasmus draconis* (Linnaeus 1766)**

of a *draco*, dragon, allusion not explained, probably referring to its large, wing-like pectoral fins, like the wings of a dragon, and perhaps also to its body, completely encased in fused dermal plates, like the scales of a dragon

***Eurypegasmus papilio* (Gilbert 1905)**

butterfly, allusion not explained, perhaps referring to wing-like pectoral fins that resemble a butterfly's (when seen from above), hence the vernacular name "seamoth"

***Pegasus* Linnaeus 1758**

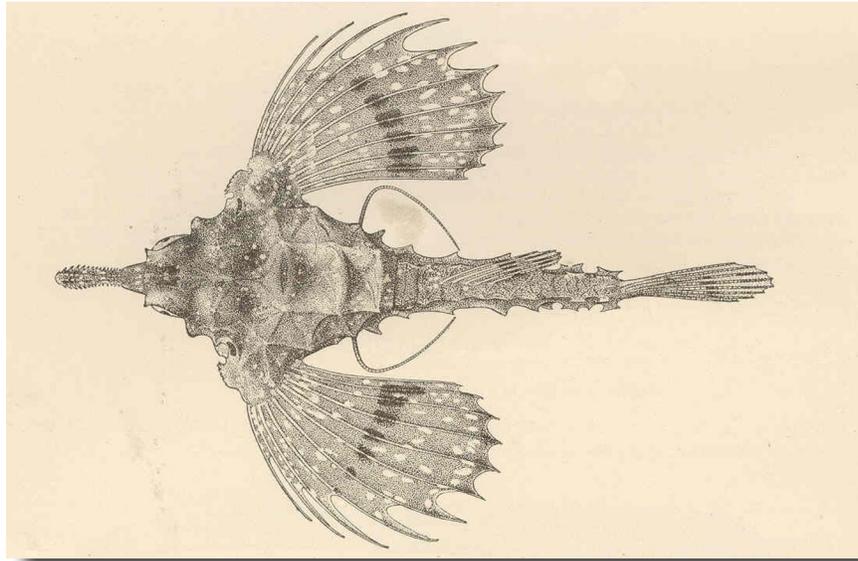
a winged horse spring from the blood of Medusa in Greek mythology, probably referring to large, wing-like pectoral fins of *P. volitans*

***Pegasus lancifer* Kaup 1861**

lancea, light spear or lance; *fero*, to bear, referring to "dagger-shaped beak" (translation)

***Pegasus laternarius* (Cuvier 1829)**

made of bricks, allusion not explained, perhaps referring to body encased in thick bony plates; Cuvier's description consists of one sentence: "snout is furnished with six longitudinal rows of serrations" (translation) [often dated to



Eurypegus papilio. From: Gilbert, C. H. 1905. The deep-sea fishes of the Hawaiian Islands. In: The aquatic resources of the Hawaiian Islands. *Bulletin of the U. S. Fish Commission* v. 23 (pt 2) [for 1903]: 577-713, Pls. 66-101.

Cuvier 1816, and placed it in its own genus, *Spinipegus*, by some workers]

***Pegasus nanhaiensis* Zhang, Wang & Lin 2020**

-*ensis*, suffix denoting place: Nan Hai, Chinese name for South China Sea, only known area of occurrence

***Pegasus sinensis* Zhang, Zhang, Ma, Liu, Lin & Wang 2022**

-*ensis*, suffix denoting place: Sinica (China), referring to its occurrence in the coastal waters of China

***Pegasus tetrabelos* Osterhage, Pogonoski, Appleyard & White 2016**

tetra-, four; *belos*, dart or arrow, referring to four backward-pointing spines on terminal tail ring (two on each side)

***Pegasus volitans* Linnaeus 1758**

flying, referring to its wing-like pectoral fins and/or to early reports that it can make short flights through the air (the fish actually uses its “wings” to “walk” along the bottom)

Suborder CALLIONYMOIDEI

Family CALLIONYMIDAE Dragonets

31 genera/subgenera · 202 species

***Anaora* Gray 1835**

etymology not explained nor evident (name dates from a plate, not a description), perhaps a local name for *A. tentaculata* on Ambon Island, Molucca Islands, Indonesia, type locality (spelled as *Amora* on plate, but this is considered an error)

***Anaora tentaculata* Gray 1835**

tentacled, allusion not explained (name dates from a plate, not a description), probably referring to many short tentacles on sides of body (R. Fricke, pers. comm.)

***Callionymus* Linnaeus 1758**

Latinization of the ancient Greek *kallionymos*, “having a name of beauty” or “having a beautiful name” (*kalleos*, genitive of *kallos*, beauty, and *-onymos*, named), an apparent antiphrastic synonym for another ancient Greek name, *uranoscopos* (stargazers, Uranoscopidae), i.e., a beautiful name for an ugly fish; Linnaeus, believing that stargazers and dragonets were closely related, followed Artedi in adopting both ancient names, selecting *Uranoscopos* for stargazers and *Callionymus* for dragonets [both names also have an obscene sexual connotation, a topic explored in the 28 Dec. 2022 “Name of the Week” entry at etyfish.org]

Subgenus ***Callionymus***

***Callionymus aagilis* Fricke 1999**

a-, not; *aagilis*, swift, a slow-moving species (like most of its long-tailed congeners; even when they are spawning, they ascend and then descend very slowly, whereas smaller and short-tailed species just dash down (R. Fricke, pers. comm.) [alphabetically the first species name for a Recent fish; perhaps not-coincidentally, Fricke also

described *C. zythros* (see below), alphabetically the last fish species name]

***Callionymus bairdi* Jordan 1888**

in honor of Spencer Fullerton Baird (1823-1887), Assistant Secretary of the Smithsonian Institution, Director of the U.S. National Museum, and U.S. Commissioner of Fish and Fisheries, to whom Jordan was “indebted for aids of many kinds in connection with [his] studies of American fishes”

***Callionymus belcheri* Richardson 1844**

in honor of Edward Belcher (1799-1877), British naval officer, hydrographer, explorer, and commander of the HMS *Sulphur*, from which type was collected, and who brought this and other fishes to England

***Callionymus caeruleonotatus* Gilbert 1905**

caeruleo-, blue; *notatus*, marked, referring to “bright blue spots and lines” on lower head and body of male

***Callionymus colini* Fricke 1993**

in honor of Patrick L. Colin (b. 1946), formerly of the Motupore Island Research Station, Port Moresby, New Guinea (type locality), who collected and donated type and other callionymids and tripterygiids from New Guinea

***Callionymus cooperi* Regan 1908**

in honor of paleontologist Clive Forster Cooper (1880-1947), a member of 1900 expedition to Maldive and Laccadive islands, during which type was collected

***Callionymus doryssus* (Jordan & Fowler 1903)**

spear-bearer, referring to “highly elevated” spines of first dorsal fin

***Callionymus fasciatus* Valenciennes 1837**

banded, with 6-7 broad, irregular, blackish or cloudy bands on body

***Callionymus filamentosus* Valenciennes 1837**

with filaments, referring to detached first spine of first dorsal spine of males produced into long filament; two caudal-fin filaments are also present

***Callionymus fluviatilis* Day 1876**

of a river, a fresh- and brackish-water species, described from Hooghly River, Calcutta, India

***Callionymus hindsii* Richardson 1844**

in honor of Richard Brinsley Hinds (1811-1846), British naval surgeon, botanist, malacologist, and member of HMS *Sulphur* expedition during which type was collected, for his work as “general editor” of the monograph in which the description appeared, serving the “promotion of natural history”

***Callionymus izuensis* Fricke & Zaiser Brownell 1993**

-ensis, suffix denoting place: Izu Islands, Japan, type locality

***Callionymus leucobranchialis* Fowler 1941**

leucos, white; *branchialis*, gills, referring to white gills “strongly contrasted” against light to pale-brown throat, chest and breast

***Callionymus luridus* Fricke 1981**

pale yellow, referring to its ground color

***Callionymus lyra* Linnaeus 1758**

lyre, harp or lute, allusion not explained, probably referring to first dorsal fin of males, however, Linnaeus may have confused it with *C. pusillus*, wherein the male’s second dorsal fin appears lyre-like (R. Fricke, pers. comm.)

***Callionymus maculatus* Rafinesque 1810**

spotted, referring to double row of brown spots on flanks of females and immature males interspersed with smaller blue spots, and four horizontal rows of conspicuous dark spots and smaller blue spots on adult males

***Callionymus martinae* Fricke 1981**

in honor of Fricke’s cousin Martina Simmat (née Wolf; Braunschweig, Germany), for her “continued interest” in Fricke’s studies (R. Fricke, pers. comm.)

***Callionymus megastomus* Fricke 1982**

mega-, large; *stomus*, mouth, referring to its “extremely protractile maxillary complex, with a very long processus ascendens” that reaches back to occipital region when snout is closed

***Callionymus melanopterus* Bleeker 1850**

melano-, black; *notos*, back; *pterus*, fin, referring to ocellate black blotch on second membrane of distally dark first dorsal fin

***Callionymus neptunius* (Seale 1910)**

etymology not explained, presumably named for Neptune, Roman god of the sea

***Callionymus octostigmatus* Fricke 1981**

octo-, eight; *stigmatus*, marked, referring to eight basal black spots on anal fin, one on each membrane

***Callionymus persicus* Regan 1905**

Persian, referring to Persian Gulf, type locality (occurs in western Indian Ocean from Gulf of Aden and Persian Gulf to Comoros, Seychelles and Maldives)

***Callionymus platycephalus* Fricke 1983**

platy, flat; *ceps*, head, referring to its “extremely” depressed head

***Callionymus pusillus* Delaroche 1809**

very small, described as a “little fish” (translation) not reaching 7 cm in length (actually, males reach 14 cm)

***Callionymus recurvispinnis* (Li 1966)**

recurvus, curved upwards; *spinnis*, apparently a misspelling of *spinis*, spine, referring to outer margin of preopercular spine curved outwards, compared to straight or slightly convex spine of *C. brunneus* (= *filamentosus*)

***Callionymus reticulatus* Valenciennes 1837**

net-like, presumably referring to net-like coloration on body (R. Fricke, pers. comm.)

***Callionymus risso* Lesueur 1814**

in honor of naturalist Antoine Risso (1777-1845), who published the first of several papers on the Mediterranean fishes of Nice, France (type locality), in 1810 [apparently a noun in apposition, without the genitive “i”]

***Callionymus russelli* Johnson 1976**

in honor of the author’s father, Russell F. Johnson

***Callionymus scabriceps* Fowler 1941**

scaber, rough; *ceps*, head, referring to parietal region of head with “striate rugae, rather coarse and irregular”

***Callionymus sphinx* Fricke & Heckele 1984**

referring to shape of head, which looks like the statue of Sphinx, half human and half lion, built around 3500 BC in Gizeh, Egypt

***Callionymus superbus* Fricke 1983**

proud, splendid or elegant, i.e., a “pretty splendid” fish (R. Fricke, pers. comm., who also tells us that the selection of this particular adjective was inspired by radio reports of the “superb” achievements of British soldiers during the Falkland War; although not particularly interested in anything militaristic, Fricke liked the word and thought it fit this fish)

***Callionymus tenuis* Fricke 1981**

delicate or slender, referring to overall appearance, a “tiny and slender” species per R. Fricke (pers. comm.)

***Callionymus tethys* Fricke 1993**

named after Tethys, ancient Greek “goddess of the sea and mother of all creatures in the world ocean”; faced with the challenge of naming a species externally similar to several long-tailed species of *Callionymus*, and with appropriate geographic names taken, Fricke opted for a name that had not previously been used for fishes (R. Fricke, pers. comm.)

***Callionymus umbrithorax* Fowler 1941**

umbra, shade or dark place; *thorax*, breast, referring to dark-brown color of breast of males

***Callionymus virgis* Jordan & Fowler 1903**

under the whip, referring to “exceedingly long” (i.e., whip-like) spines of first dorsal fin (second dorsal fin is figuratively “under the whip”)

***Callionymus zythros* Fricke 2000**

Greek for citrus (lemon tree), referring to yellowish color of head and body in alcohol (R. Fricke, pers. comm.) [alphabetically the last species name for a Recent fish; perhaps not-coincidentally, Fricke also described *C. aagilis* (see above), alphabetically the first fish species name]

Subgenus ***Bathycallionymus* Nakabo 1982**

bathys, deep, i.e., proposed as a new genus closely related to *Callionymus* whose members occur in deep waters near edge of continental shelf

***Callionymus africanus* (Kotthaus 1977)**

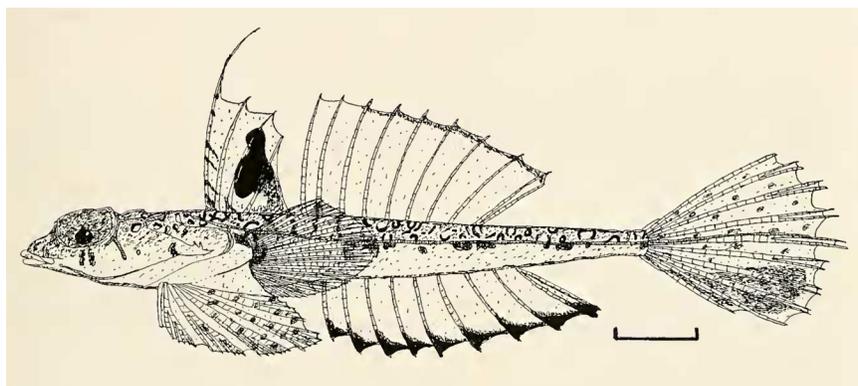
African, referring to occurrence in western Indian Ocean off East Africa (Kenya, Tanzania)

***Callionymus altipinnis* Fricke 1981**

altus, high; *pinnis*, fin, referring to its “unusually high” second dorsal, anal, and first dorsal fins

***Callionymus bentuviai* Fricke 1981**

in honor of ichthyologist Adam Ben-Tuvia (1919-1999), Hebrew University of Jerusalem, who collected type and sent it to Fricke for examination



Callionymus futuna. From: Fricke, R. 1998. Callionymid fishes trawled off Wallis and Futuna, central Pacific Ocean, with descriptions of two new species of *Callionymus* (Teleostei: Callionymidae). *Stuttgarter Beiträge zur Naturkunde. Serie A (Biologie)*. No. 567: 1-9.

***Callionymus bifilum* Fricke 2000**

bi-, two; *filum*, filament, referring to two long caudal-fin filaments of the male

***Callionymus bleekeri* Fricke 1983**

in honor of Dutch medical doctor and ichthyologist Pieter Bleeker (1819-1878), for “many and valuable” contributions to the knowledge of Indo-West Pacific dragonets

***Callionymus carebares* Alcock 1890**

cara-, head; *barys*, heavy, referring to its very large, depressed head

***Callionymus formosanus* Fricke 1981**

-anus, belonging to: Formosa (now Taiwan) Strait, type locality

***Callionymus futuna* Fricke 1998**

named for Futuna Island shelf (Wallis and Futuna), western Pacific, type locality

***Callionymus guentheri* Fricke 1981**

in honor of ichthyologist-herpetologist Albert Günther (1830-1914), who reported this species as *C. curvicornis* in 1880

***Callionymus kaianus* Günther 1880**

-anus, belonging to: Kai Islands, Indonesia, Banda Sea, type locality

***Callionymus kailolae* Fricke 2000**

in honor of Patricia J. Kailola, The University of the South Pacific (Suva, Fiji), who published a photo showing life colors of this species in 1984, and for her interest in callionymid fish research

***Callionymus kanakorum* Fricke 2006**

-orum, commemorative suffix, plural: in honor of the Kanak, Melanesian people of New Caledonia, where it is endemic

***Callionymus kotthausi* Fricke 1981**

in honor of German ichthyologist Adolf Kotthaus, who described this species as *Diplogrammus indicus* in 1977, secondarily preoccupied by *Callionymus indicus* Linnaeus 1758 when both are in *Callionymus*; Fricke renamed the species in “accordance with Dr. Kotthaus, who is presently unable to create a new name for the species because of his health”

***Callionymus moretonensis* Johnson 1971**

-ensis, suffix denoting place: seven miles east of Cape Moreton, southeastern Queensland, Australia, type locality

***Callionymus ochiaii* Fricke 1981**

in honor of ichthyologist Akira Ochiai (1923–2017), Kochi University, who first described this species under the name *C. kaianus* in 1955

***Callionymus omanensis* Fricke, Jawad & Al-Mamry 2014**

-ensis, suffix denoting place: off Salalah City, southern Oman, type locality

***Callionymus petersi* Fricke 2016**

in honor of the Wilhelm C. H. Peters (1815-1883, Berlin), University of Berlin, who described fishes collected by SMS *Gazelle* in New Ireland in July 1875, and was the first to observe this species (although he misidentified it as *C. calauropomus*)

Callionymus profundus Fricke & Golani 2013

deep, collected at a depth of 410-480 m

Callionymus regani Nakabo 1979

in honor of ichthyologist Charles Tate Regan (1878-1943), Natural History Museum (London), who reported this species as a female *C. kaianus* in 1908

Callionymus semeiophor Fricke 1983

semeion, flag or banner; *phorus*, bearer, referring to first dorsal fin of male, which looks like a color-bearer

Callionymus sokonumeri Kamohara 1936

from its Japanese name, *Soko-numeri*

Callionymus whiteheadi Fricke 1981

in honor of Peter J. P. Whitehead (1930-1993), British Museum (Natural History), who collected type specimens and allowed Fricke to examine them

Subgenus **Callimucenus Whitley 1934**

etymology not explained, presumably a combination of *Callionymus* and the “allied” *Repomucenus*

Callionymus amboina Suwardji 1965

-ina, belonging to: Ambon Island, Molucca Islands, Indonesia, only known area of occurrence

Callionymus annulatus Weber 1913

ringed, referring to variously sized ring-like spots, partly touching each other, all over body

Callionymus hainanensis Li 1966

-ensis, suffix denoting place: Yingge Sea, Hainan Island, China, type locality

Callionymus hildae Fricke 1981

in honor of biologist Hildegard Handermann, Zoologisches Institut, Technische Universität Braunschweig (Germany), for her “continued interest” in Fricke’s studies

Callionymus leucopocilus Fricke & Lee 1993

leucos, white; *poecilos*, spotted, referring to numerous light spots on dorsal parts of head and body

Callionymus macdonaldi Ogilby 1911

in honor of Capt. Donald MacDonald, former first officer of the F.I.S. *Endeavour* and then chief pilot at Keppel Bay (Queensland, Australia), to whom Ogilby was “indebted for many favors” [*Endeavour* was a Federal fisheries survey vessel responsible for collecting the first specimens of many of Australia’s continental shelf fishes in the early 20th century before it was lost at sea, along with everyone on board, in 1914]

Callionymus marleyi Regan 1919

in honor of Natal fisheries officer Harold Walter Bell-Marley (1872-1945), who collected type

Callionymus mortenseni Suwardji 1965

in honor of the late Ole Theodor J. Mortensen (1868-1952), University of Copenhagen, echinoderm biologist who collected type during his 1992 expedition to the Kei Islands, Indonesia

Callionymus olidus Günther 1873

smelly, allusion not explained, probably referring to acid smell of slime on body, which tastes bitter and may be toxic (some Australian callionymids are called “stinkfish”)

Callionymus planus Ochiai 1955

flat, allusion not explained, probably referring to strongly depressed body and/or “broad and flattish” trunk

Callionymus sagitta Pallas 1770

arrow, referring to triangular shape of head, like the head of an arrow

Subgenus **Calliurichthys Jordan & Fowler 1903**

callos, beauty (but possibly referring to relationship with *Callionymus*) and *oura*, tail, referring to “greatly elongate” caudal fin of *C. japonicus*; *ichthys*, fish

Callionymus afilum Fricke 2000

a-, without; *filum*, filament, referring to first dorsal fin of males, which is lacking filaments, unlike the closely related *C. japonicus* and *C. scaber*, which possess them

Callionymus corallinus Gilbert 1905

coralline, presumably referring to “many minute round spots of coral-red, covering upper part of snout, interorbital space with upper part of eyeballs, upper half of opercles, and the preopercular spine” [subgeneric placement provisional; placed in *Synchiropus* or its own genus, *Paradiplogrammus*, by some workers]

Callionymus decoratus (Gilbert 1905)

decorative or adorned, referring to “remarkably beautiful decoration of the throat and branchiostegal membranes” of adult males

Callionymus gardineri Regan 1908

in honor of British zoologist John Stanley Gardiner (1872-1946), who led a 1900 expedition to the Maldive and Laccadive islands, during which type was collected

Callionymus japonicus Houttuyn 1782

Japanese, described from Nagasaki, Japan (occurs in western Pacific from Indonesia and Gulf of Thailand, east to Philippines, north to southern Japan)

Callionymus ogilbyi Fricke 2002

in honor of ichthyologist James Douglas Ogilby (1853-1925), for “important contributions” to the knowledge of Australian callionymid fishes (Ogilby provisionally reported this species as *C. affinis* in 1910)

Callionymus scaber McCulloch 1926

rough, proposed as a subspecies of *C. japonicus* with a “more rugose” upper surface of head

Callionymus vietnamensis Fricke & Vo 2018

-ensis, suffix denoting place: South China Sea off southern Viêt Nam, type locality

Subgenus **Margaretichthys** Fricke 2017

Margaret, named for its type species, *C. margaretae*, *ichthys*, fish

Callionymus australis Fricke 1983

southern, proposed as a southern hemisphere and Australian subspecies of *C. margaretae*

Callionymus boucheti Fricke 2017

in honor of ichthyologist-malacologist Philippe Bouchet (b. 1953), Muséum national d'Histoire naturelle (Paris), “appreciating the excellent organisation of numerous expeditions exploring the biodiversity of tropical seas,” including the KAVIENG 2014 Expedition to New Ireland Province, Papua New Guinea, during which type was collected

Callionymus margaretae Regan 1905

in honor of Margaret Smith, who, with her husband Whitby, have “taken great interest” in the work of Capt. Frederick William Townsend (d. 1948), Commander, Indian Cable-Ship *Patrick Stewart*, who collected many fishes and molluscs while doing cable work in the Persian Gulf, including type of this species

Callionymus rivatoni Fricke 1993

in honor of Jacques Rivaton (1921-2009), ORSTOM (Office de la Recherche Scientifique et Technique d'Outre-Mer), New Caledonia, who sent specimens of this species and other callionymid and tripterygiid fishes to Fricke for examination

Callionymus sereti Fricke 1998

in honor of ichthyologist Bernard Séret (b. 1949), Muséum national d'Histoire naturelle (Paris), who collected fishes from the Futuna Island shelf (Wallis and Futuna), including type of this one

Subgenus **Paradiplogrammus** Nakabo 1982

para-, near, proposed as a new genus closely related to *Diplogrammus* in general physiognomy, especially that of the preopercular spine, but differs in having no dermal fold on lateral ventral side of body

Callionymus enneactis Bleeker 1879

ennea, nine; *actis*, ray, referring to nine rays in second dorsal fin (correct number is eight; Bleeker counted the last ray, which is branched, as two rays [R. Fricke, pers. comm.])

Callionymus parvus (Nakabo 1984)

Latin for little, referring to its small size (maturing at 20 mm SL)

Callionymus stigmatopareius Fricke 1981

stigmatos, spot; *pareia*, cheek, referring to numerous dark spots (which are possibly little ocelli in life) on cheeks

Subgenus **Pseudocalliurichthys** Nakabo 1982

pseudo-, false, proposed as a genus closely related and similar to *Calliurichthys*

Callionymus brevianalis Fricke 1983

brevis, short; *analis*, anal, referring to short anal fin with very few rays

Callionymus comptus Randall 1999

ornamented or adorned, referring to many colorful markings of the male

Callionymus curvispinis Fricke & Zaiser Brownell 1993

curvus, curved; *spinis*, spine, referring to up-curved main tip of preopercular spine

Callionymus delicatulus Smith 1963

diminutive of *delicatus*, delicate or dainty, allusion not explained but the species is very small and delicate (R. Fricke, pers. comm.)

Callionymus flavus Fricke 1983

yellow, referring to yellow coloration on head and body

Callionymus goodladi (Whitley 1944)

in honor of James Goodlad (1902-1984), Fisheries Inspector, Albany district, Western Australia, who presented type to the Western Australian Museum

Callionymus grossi Ogilby 1910

in honor of the late Maj. George Gross (d. 1909), friend, colleague, amateur naturalist, schoolmaster, and “one of the leading conchologists of Queensland” (Australia)

Callionymus ikedai (Nakabo, Senou & Aizawa 1998)

in honor of Yuji Ikeda (Biological Laboratory, Imperial Palace, Tokyo), who reared the male paratype to maturity in an aquarium

Callionymus madangensis Fricke 2014

-ensis, suffix denoting place: Madang District, Madang Bay, Papua New Guinea, type locality

Callionymus marquesensis Fricke 1989

-ensis, suffix denoting place: Marquesas Islands, where it appears to be endemic

Callionymus pleurostictus Fricke 1982

pleuro-, side; stictus, mark or spot, referring to many ocellate blotches on lower sides of body (and head)

Callionymus simplicicornis Valenciennes 1837

simplex, simple; cornis, horn, referring to straight (vs. curved) preopercular spine with “serrations so small that a magnifying glass is necessary to distinguish them, making it appear simple [i.e., without hook-like processes] to the naked eye” (translation)

Callionymus variegatus Temminck & Schlegel 1845

variegated, i.e., with a combination of colors and markings, referring to light-brown body color “variegated with large, darker brown spots, and most often confluent to form five or six transverse bands” (translation)

Subgenus **Repomucenus Whitley 1931**

etymology not explained, perhaps *repo-*, from *repium*, inclined downwards, referring to backward-pointing spur on posterior half of outer side of preopercular spine of *C. calcaratus*, and three on inner side pointing inwards and backwards; *mucenus*, slimy, perhaps referring to how callionymids produce a lot of mucus when caught (R. Fricke, pers. comm.), and/or its acidic smell

Callionymus beniteguri Jordan & Snyder 1900

etymology not explained; according to Jordan & Fowler 1903, Japanese vernacular name of *C.* (now *Synchiropus*) *altivelis*: *beni*, red (although this species is brown) and *teguri*, net catch, a “name applied to small fish” (Temminck & Schlegel reported the name as “Benteguri” in 1845)

Callionymus calcaratus Macleay 1881

with spurs, referring to “strong” backward-pointing spur on posterior half of outer side of preopercular spine, and three on inner side pointing inwards and backwards

Callionymus curvicornis Valenciennes 1837

curvus, curved; cornis, horn, referring to its curved preopercular spine (the only congener with a similar, but less curved, spine is *C. mascarenus*; R. Fricke, pers. comm.)

Callionymus koreanus (Nakabo, Jeon & Li 1987)

Korean, referring to type locality, Sea of the Sa-dong, Ansan-shi, Kyong’gi-do, Korea

Callionymus lunatus Temminck & Schlegel 1845

crenate-shaped, referring to large black spot on posterior rays of anterior dorsal fin

Callionymus mascarenus Fricke 1983

-anus, belonging to: Mauritius, Mascarenes, southwestern Indian Ocean, where it is endemic

Callionymus valenciennei Temminck & Schlegel 1845

in honor of Achille Valenciennes (1794-1865), who reported this species as *C. japonicus* in 1837

Subgenus **Spinicapitichthys Fricke 1980**

spini-, spine and *caput*, head, referring to rather spiny head compared to other callionymids; *ichthys*, fish

Callionymus alisae Fricke 2016

named for the French research vessel *Alis*, which was used to collect type and many other “interesting” fishes in the western and central Pacific

Callionymus draconis Nakabo 1977

of a *draco*, dragon, referring to its dragon-like head

Callionymus io Fricke 1983

named after Io, daughter of the Argivian king Inachos in ancient Greek mythology; Fricke chose the name for no particular reason except that he was looking for a short name “in order to add a bit of interest” (R. Fricke, pers. comm.)

Callionymus muscatensis Regan 1905

-ensis, suffix denoting place: Muscat, Oman, Gulf of Oman, Arabian Sea, type locality (also occurs in southern Red Sea)

Callionymus obscurus Fricke 1989

obscure, referring to both its dusky coloration and, first collected in 1975, to its “hiding away from science for a long time” (R. Fricke, pers. comm.)

Callionymus oxycephalus Fricke 1980

oxy, sharp or pointed; *cephalus*, head, referring to both pointed shape of head and sharp spines on the head (R. Fricke, pers. comm.)

Callionymus spiniceps Regan 1908

spinus, thorn or spine; *ceps*, head, allusion not explained; although Regan did not mention head spines in the description, this is the most spiny headed species of the genus (R. Fricke, pers. comm.)

Subgenus **Velesionymus Whitley 1934**

etymology not explained, perhaps a combination of *Callionymus* and *Veles*, a Slavic god of earth, waters and the underworld, sometimes imagined as a dragon

Callionymus acutirostris Fricke 1981

acutus, pointed; *rostris*, snout, referring to two acute bony spines on snout

Callionymus erythraeus Ninni 1934

-eus, having the quality of: *erythros*, red, referring to the Red Sea, type locality (also occurs in Persian Gulf, Gulf of Oman, and Indian Ocean east to Singapore)

Callionymus huguenini Bleeker 1858

in honor of Otto Frederik Ulrich Jacobus Huguenin (1827-1871), mining engineer in the Dutch East Indies (Indonesia), who collected type at Dejima, a Dutch trading post in Nagasaki, Japan

Callionymus keeleyi Fowler 1941

in honor of Frank J. Keeley (1868-1949), department of mineralogy, Academy of Natural Sciences of Philadelphia (where Fowler worked)

Callionymus limiceps Ogilby 1908

lima, file or rasp; *ceps*, head, allusion not explained, probably referring to numerous small granular rugosities on occipital region

Callionymus macclesfieldensis Fricke 1983

-ensis, suffix denoting place: Macclesfield Bank, South China Sea, only known area of occurrence

Callionymus meridionalis Suwardji 1965

southern, proposed as a southern subspecies (described from Bali Strait, Indonesia) of *C. valenciennesi* (from Japanese waters)

Callionymus ornatipinnis Regan 1905

ornatus, decorated; *pinnis*, fin, presumably referring to numerous round or oval black spots intermixed with light ones on caudal fin

Callionymus schaapii Bleeker 1852

in honor of Dirk François Schaap (1816-1864), Dutch colonial administrator in Indonesia and resident at Bangka Island, Sumatra, to whose “service to science” (translation) knowledge of this species is due

Callionymus sublaevis McCulloch 1926

sub-, less than or somewhat; *laevis*, smooth, proposed as a variety of *C. limiceps* without “granular rugosities” on upper surface of head cranium and supraorbital ridges, this area “almost entirely smooth and covered by skin”

Chalinops Smith 1963

chalinops, bridle; *ops*, appearance or eye, allusion not explained nor evident; the type species *C. floridae* (= *pauciradiatus*) does not have a bridle-like marking through the eye

Chalinops pauciradiatus (Gill 1865)

paucus, few; *radiatus*, rayed, referring to fewer dorsal- and anal-fin rays compared to *Callionymus*, its presumed genus at the time [placed in *Diplogrammus* by some workers]

Dactylopus Gill 1859

tautonymous with *Callionymus dactylopus* Valenciennes 1837

***Dactylopus dactylopus* (Valenciennes 1837)**

dactylus, finger; *pous*, foot, presumably referring to large, wing-like pelvic fins with the first ray separate and extended like a finger

***Dactylopus kuiteri* (Fricke 1992)**

in honor of Australian underwater photographer Rudolf “Rudie” Kuitert (b. 1943), who collected type

***Diplogrammus* Gill 1865**

diplo-, twofold; *grammus*, line, referring to two lateral lines, the lower one represented by a fleshy keel or membranous fold along lower side of body beginning opposite anterior base of anal fin

Subgenus ***Diplogrammus******Diplogrammus goramensis* (Bleeker 1858)**

-ensis, suffix denoting place: Goram, largest island of Gorong Archipelago, Indonesia, type locality (widely occurs in western Pacific from Viêt Nam, Philippines and eastern Indonesia east to Marshall and Cook Islands, north to southern China, south to Australia, Norfolk Island and New Caledonia)

***Diplogrammus xenicus* (Jordan & Thompson 1914)**

strange, foreign or exotic (i.e., different), allusion not explained, probably referring to its very conspicuous coloration and/or to combination of characters that distinguish it from other Japanese callionymids known at the time, i.e., “peculiar form of the maxillary, the fold of skin along the side of the body, the opercular flap, and many-hooked spine of the pre-opercle”

Subgenus ***Climacogrammus* Smith 1963**

climacis, ladder; *grammus*, line, presumably referring to lateral line of *D. infulatus*, “with many transverse branches,” looking like the rungs of a ladder (R. Fricke, pers. comm.)

***Diplogrammus infulatus* Smith 1963**

banded, allusion not explained, perhaps referring to “many transverse branches” on lateral line or to four “vertical greenish bars fading above” on caudal fin of males

***Diplogrammus paucispinis* Fricke & Bogorodsky 2014**

paucus, few; *spinis*, spine, referring to low number of spinules on dorsal margin of preopercular spine compared to congeners (except the pygmy species *D. pygmaeus*)

***Diplogrammus pygmaeus* Fricke 1981**

very small or pygmy, described at up to 29.7 mm SL

***Diplogrammus randalli* Fricke 1983**

in honor of ichthyologist John E. Randall (1924-2020), Bishop Museum (Honolulu), for his many papers on Indo-Pacific coral reef fishes; he also collected some of the largest specimens of this species

Subgenus ***Diplogrammoides* Smith 1963**

-oides, having the form of: proposed as subgenus of *Diplogrammus* without a free opercular flap

***Diplogrammus gruveli* Smith 1963**

in honor of biologist Jean Abel Gruvel (1870-1941), who reported this species as *D. goramensis* in 1937

***Draculo* Snyder 1911**

etymology not explained, presumably a variant or diminutive of *draco*, dragon, i.e., a small dragonet (type species, *D. mirabilis*, described at 35 mm)

***Draculo celetus* (Smith 1963)**

hidden or covered, allusion not explained, probably referring to its cryptic behavior, buried in sand in tidal pools (R. Fricke, pers. comm.)

***Draculo maugéi* (Smith 1966)**

in honor of accountant-turned-ichthyologist André L. Maugé (1922-2008), Muséum national d’Histoire naturelle (Paris), “plainly a skilful collector of rare fishes,” including type of this one

***Draculo mirabilis* Snyder 1911**

wonderful, strange, striking or remarkable, allusion not explained, perhaps referring to single dorsal fin (other callionymids have two)

***Draculo pogognathus* (Gosline 1959)**

pogon, beard; *gnathus*, jaw, referring to papillate fringe on lower jaw

***Draculo shango* (Davis & Robins 1966)**

named for Shango, a mythological figure (reputed early king of Oyo, god of thunder and lightning), whose statue decorated the waterfront of Lagos, Nigeria, type locality

***Eleutherochir* Bleeker 1879**

eleutherus, free; *cheiros*, hand (i.e., pectoral fin), referring to absence of dermal membrane connecting ventral fins with

base of pectoral fins

***Eleutherochir opercularis* (Valenciennes 1837)**

opercular, presumably referring to its long, pointed operculum

***Paracallionymus* Barnard 1927**

para-, near, similar to *Callionymus* but with a “unique development of the lateral mucous system” (see *P. costatus*)

***Paracallionymus costatus* (Boulenger 1898)**

ribbed, referring to lateral line, “single, much developed, sending off perpendicular branches above and below, the upper branches, 35 in number extending to the middle line of the back, giving the body a ribbed appearance”

***Protogrammus* Fricke 1985**

protos, original; *gramme*, line, referring not to lateral-line structure but to ventrolateral fold of skin of *P. sousai* and to its relationship with *Diplogrammus*; the “name indicates that this genus possesses a primitive ventrolateral fold of skin”

***Protogrammus alboranensis* Fricke, Ordines, Farias & García-Ruiz 2016**

-ensis, suffix denoting place: Alboran Sea, Spain, southwestern Mediterranean, type locality

***Protogrammus antipodus* Fricke 2006**

named after the antipodes, as it occurs very far (New Caledonia) from its sister species *P. sousai*, from the north-east Atlantic

***Protogrammus sousai* (Maul 1972)**

in honor of Manuel António Pereira Cristiano de Sousa, former Captain of the Port of Funchal (Madeira), to whom Maul and the Museu Municipal do Funchal are “greatly indebted for his untiring interest and help he gave”

***Synchiropus* Gill 1859**

syn-, together; *cheiros*, hand; *opus*, foot, referring to membrane connecting pelvic fin to pectoral fin (also present in *Callionymus*)

Subgenus ***Synchiropus***

***Synchiropus lateralis* (Richardson 1844)**

of the side, referring to lateral position of branchial opening behind operculum

***Synchiropus lineolatus* (Valenciennes 1837)**

lined, referring to “discontinuous, longitudinal, pearly, and brown-edged lines” on lower half of body

***Synchiropus rubrovinctus* (Gilbert 1905)**

rubro-, red; *vinctus*, banded, referring to four bright-red bars on back extending to middle of sides

Subgenus ***Acommissura* Fricke 2016**

a-, without; *commissura*, commissure, referring to missing lateral line commissure across dorsal side of caudal peduncle

***Synchiropus ijimai* Jordan & Thompson 1914**

in honor of zoologist Isao Ijima (also spelled Iijima, 1861-1921), Science College, Imperial University of Tokyo [although named after a man, originally spelled “*ijimae*” since some classically trained zoologists latinized the names of individuals whose names ended with the letter “a” by adding an “e”; current spelling reflects prevailing usage]

***Synchiropus morrisoni* Schultz 1960**

in honor of Joseph Paul Eldred Morrison (1906-1983), Associate Curator of mollusks, U.S. National Museum, who spent the summers of 1946 and 1947 at Bikini Atoll, Marshall Islands (type locality), during Operations Crossroads (studying effects of atomic bombs)

***Synchiropus novaehiberniensis* Fricke 2016**

-ensis, suffix denoting place: *novae*, new; *Hibernia*, Latin name of Ireland, referring to New Ireland, Papua New Guinea, only known area of occurrence

***Synchiropus sechellensis* Regan 1908**

-ensis, suffix denoting place: Seychelles, western Indian Ocean, type locality (occurs in Red Sea and Indo-West Pacific from Gulf of Aden and Somalia to Maldives and Seychelles, Chesterfield Islands to New Caledonia, and in the Mediterranean as a Lessepsian immigrant)

***Synchiropus sycorax* Tea & Gill 2016**

named after the red-robed and caped Sycorax warriors from the BBC sci-fi series *Dr. Who*, “in showing similarities in both coloration and grandiloquence of their garb”

***Synchiropus tudorjonesi* Allen & Erdmann 2012**

in honor of Paul Tudor Jones (b. 1954), for his “dedication and selfless service” as chairman (2006-2009) of the United States National Fish and Wildlife Foundation (NFWF); “Under his strong leadership ... the NFWF has grown into a highly respected conservation institution and expanded its programs from a national focus to a global one, including protection of the Bird’s Head Seascape reefs, which this beautiful dragonet species calls home.”

Through these efforts, Mr. Tudor Jones has forever left his mark on the noble pursuit of nature preservation.”

Subgenus **Anaoroides Fricke 1981**

-oides, having the form of: having a preopercular spine as in the genus *Anaora*

Synchiropus zamboangana Seale 1910

named for Zamboanga, Mindanao Island, Philippines, type locality (but type destroyed in WW2)

Subgenus **Eocallionymus Nakabo 1982**

eo-, early; *Callionymus*, type genus of family, proposed as a genus presumed to be “one of the earliest” dragonets because of its “most primitive osteological characters” [treated as a full genus by some authors]

Synchiropus papilio (Günther 1864)

butterfly, allusion not explained, probably referring to the large and colorful dorsal and anal fins (R. Fricke, pers. comm.)

Subgenus **Foetorepus Whitley 1931**

etymology not explained, probably *foetus*, foul or fetid, referring to acid smell of slime on body, which tastes bitter and may be toxic (in Australia, the type species, *S. calauropomus*, is called “stinkfish”); *repus*, from *repium*, inclined downwards, possibly referring to recurved hooks on upper surface of preopercular spine and/or to similarity with *Repomucenus* (proposed in same paper) [treated as a full genus by some workers]

Synchiropus altivelis (Temminck & Schlegel 1845)

altus, high; *velum*, sail, referring to elevated second dorsal fin

Synchiropus australis (Nakabo & McKay 1989)

southern, referring to marine waters off eastern Australia, where it is endemic

Synchiropus calauropomus (Richardson 1844)

kalaurops, shepherd’s staff or crook; *pomus*, lid or covering (i.e., operculum), referring to long preopercular spine with only “two teeth at the summit, the interior one being recurved, so that the whole spine has a resemblance to a shepherd’s crook”

Synchiropus delandi Fowler 1943

in honor of the late Judson de Land (Philadelphia, Pennsylvania, USA), physician, to whom Fowler was “indebted for American fishes”

Synchiropus grandoculis Fricke 2000

grandis, large; *oculus*, eye, referring to its “unusually large” eyes

Synchiropus grinnelli Fowler 1941

in honor of the late Joseph Grinnell (1877-1939), Director, Museum of Vertebrate Zoology, University of California (Berkeley, California, USA)

Synchiropus hawaiiensis Fricke 2000

-ensis, suffix denoting place: Hawaiian Islands, where it appears to be endemic

Synchiropus kamoharai (Nakabo 1983)

in honor of ichthyologist Toshiji Kamohara (1901-1972), Kochi University, who first found and recorded this species

Synchiropus kanmuensis (Nakabo, Yamamoto & Chen 1983)

-ensis, suffix denoting place: Kanmu Seamount, Hawaiian-Emperor seamount chain, northern central Pacific, type locality

Synchiropus kinmeiensis (Nakabo, Yamamoto & Chen 1983)

-ensis, suffix denoting place: Kinmei [correctly spelled Kimmei] Seamount, Hawaiian-Emperor seamount chain, northern central Pacific, type locality

Synchiropus masudai (Nakabo 1987)

in honor of ichthyologist Hajime Masuda (1921-2005), University of Tokyo, who collected type

Synchiropus monacanthus Smith 1935

mono-, one; *acanthus*, spine, presumed to be related to *S. lineolatus* but differing in having only one denticle on preopercular spine

Synchiropus novaecaledoniae Fricke 1993

novae, new, of New Caledonia, western Pacific, type locality

Synchiropus orstom Fricke 2000

named after ORSTOM (Office de la Recherche Scientifique et Technique Outre-Mer, now named I.R.D., Institut de Recherche pour le Développement), for its “great effort” in exploring marine biodiversity of New Caledonian marine biodiversity, including the discovery of callionymids

Synchiropus paxtoni Fricke 2000

in honor of ichthyologist John R. Paxton (b. 1938), Australian Museum (Sydney), who collected the holotype and

one paratype on board the research vessel *Soela*

***Synchiropus richeri* Fricke 2000**

in honor of carcinologist Bertrand Richer de Forges (b. 1948), Institut de Recherche pour le Développement, Nouméa, New Caledonia), for his efforts in collecting the type material of this species and many other New Caledonian callionymids

***Synchiropus signipinnis* Fricke 2000**

signum, banner; *pinnis*, fin, referring to high first-dorsal fin of male

Subgenus ***Minysynchiropus* Nakabo 1982**

miny, small, i.e., a “very small” *Synchiropus*, referring to mature size of *S. laddi* (with conspicuous secondary sexual characters at ~20 mm SL) [treated as a full genus by some workers]

***Synchiropus claudiae* Fricke 1990**

in honor of Fricke’s sister Claudia Grünhagen (née Fricke), for her “continued interest in and support of [his] studies on callionymid fishes”

***Synchiropus kiyoeae* Fricke & Zaiser 1983**

in honor of Kiyoe Tanaka, widow of Tatsuo Tanaka (a wealthy merchant at Miyake-jima, Japan, type locality), who “generously donated land, facilities, and her personal time for the establishment and maintenance” of the Tatsuo Tanaka Memorial Biological Station at Miyake-jima

***Synchiropus laddi* Schultz 1960**

in honor of geologist Harry Stephen Ladd (1899-1982), U.S. Geological Survey, who was at Bikini Atoll, Marshall Islands (type locality), during Operations Crossroads (1946 and again in 1947), studying effects of atomic bombs

***Synchiropus minutulus* Fricke 1981**

very small or pygmy, reaching 14.3 mm SL

***Synchiropus postulus* Smith 1963**

etymology not explained, perhaps diminutive of the adjective *postus*, standing or erected, referring to elevated first dorsal fin of males (Miguel A. Alonso-Zarazaga, pers. comm.)

***Synchiropus randalli* Clark & Fricke 1985**

in honor of ichthyologist John E. Randall (1924-2020), Bishop Museum (Honolulu), for his considerable contributions to the knowledge of the fishes of Easter Island (where this species appears to be endemic); he also helped collect type

***Synchiropus rosulentus* Randall 1999**

full of roses, referring to series of pink rose-like blotches along the sides

***Synchiropus springeri* Fricke 1983**

in honor of ichthyologist Victor G. Springer (b. 1928), U.S. National Museum, who collected type specimens during his Fiji Islands Expedition (1982) and loaned them and many other specimens to Fricke for examination

Subgenus ***Neosynchiropus* Nalbant 1979**

neo-, new, proposed as a new genus resembling *Synchiropus*

***Synchiropus bartelsi* Fricke 1981**

in honor of biologist Harald Bartels (Braunschweig, Germany), Fricke’s friend since gymnasium (high school, 1976), for his “continued interest” in Fricke’s studies (Bartels passed away ca. 2004, R. Fricke, pers. comm.)

***Synchiropus circularis* Fricke 1984**

named for circular white blotches on sides of body

***Synchiropus marmoratus* (Peters 1855)**

marbled, referring to olive-brown body and top of head marbled with many darker spots and markings

***Synchiropus moyeri* Zaiser & Fricke 1985**

in honor of marine biologist Jack T. Moyer (1929-2004), director of the Tatsuo Tanaka Memorial Biological Station at Miyake-jima, Japan, for his “noteworthy contributions to the knowledge of the fishes of Miyake-jima, and in deep appreciation of the encouragement and logistic support he has provided to both of the authors” [biographical footnote: Moyer committed suicide; in 2014, The American School in Japan, where Moyer had taught, admitted that as many as 32 girls had been sexually abused by Moyer, starting as early as 1964, abuse that had been covered up by faculty and administration]

***Synchiropus ocellatus* (Pallas 1770)**

with eye-like spots, referring to 3-5 ocelli on first dorsal fin of males

***Synchiropus stellatus* Smith 1963**

starry, presumably referring to “dark sepia stellate blotches” on body of living specimens

Subgenus *Orbonymus* Whitley 1947

etymology not explained, perhaps *orbis*, bereft of parents (i.e., an orphan) and *-nymus*, short for *Callionymus* (original genus of *S. rameus*), referring to how this subgenus (proposed as a full genus and treated as such by some workers) with its one species is a figurative orphan compared to the specious *Callionymus* and other Australian dragonets

***Synchiropus rameus* (McCulloch 1926)**

belonging to branches, presumably referring to fourth (and last) dorsal spine, its bifid rays divided to the base, with “each branch” bifurcate, and/or “two branches” of the last anal-fin ray, also bifurcate

Subgenus *Pterosynchiropus* Nakabo 1982

ptero-, wing or fin, proposed as a genus similar to *Neosynchiropus* but with a broad pectoral fin with many rays; species belonging to this (sub)genus “seem to swim among corals above the bottom,” a “peculiar manner of swimming which is unique among callionymid fishes” [treated as a full genus by some workers]

***Synchiropus occidentalis* Fricke 1983**

western, proposed as a subspecies of *C. picturatus* occurring in Western Australia, west of the nominate form

***Synchiropus picturatus* (Peters 1877)**

painted, referring to its vivid coloration, especially the numerous ocelli on the body with three rings: an inner rose-red, a middle black and an outer blue

***Synchiropus splendidus* (Herre 1927)**

glittering or brilliant, a “gorgeously and brilliantly colored” fish in life; indeed, it has been called the most colorful fish in the world

Subgenus *Yerutius* Whitley 1931

etymology not explained nor evident [treated as a junior synonym of *Foetorepus* by some workers]

***Synchiropus agassizii* (Goode & Bean 1888)**

patronym not identified but almost certainly in honor of Alexander Agassiz (1835-1910), Curator, Museum of Comparative Zoology (Harvard), who authored monograph in which name (proposed by a figure without a diagnosis or description) first appeared

***Synchiropus apricus* (McCulloch 1926)**

exposed to the sun (i.e., faded), presumably referring to coloration, described as almost colorless in formalin and rose-pink in life

***Synchiropus atrilabiatus* (Garman 1899)**

atri-, black; *labiatus*, large-lipped, referring to “deep black” upper lips

***Synchiropus dagmarae* Fricke 1985**

in honor of Dagmar Hansen (Mönchengladbach, Germany, now in Stuttgart), a friend dating to Fricke’s time at King’s College London in 1983 (pers. comm.), to whom he was “indebted for encouragement in various ways”

***Synchiropus flavistrigatus* Fricke, Ordines & Ramírez-Amaro 2022**

flavus, yellow; *strigatus*, striped, referring to yellow bars on second dorsal fin

***Synchiropus garthi* (Seale 1940)**

in honor of zoologist John S. Garth (1909-1993), who accompanied Capt. C. Allan Hancock aboard the yacht *Velero III* on four expeditions (1931-1935) to the Galapagos Islands and coasts of Central and South America, during which type was collected

***Synchiropus goodenbeani* (Nakabo & Hartel 1999)**

in honor of the “ichthyological team” of George Brown Goode (1851-1896) and Tarleton H. Bean (1846-1916), both of the U.S. National Museum, who described the first species of *Foetorepus* (original genus) and “greatly expanded” our knowledge of what they called “oceanic ichthyology” (spelling is a euphonic to reflect pronunciation of “Goode n’ Bean”)

***Synchiropus phaeton* (Günther 1861)**

radiant or shining, from Phaeton (or Phaethon, the “shining one”) in Greek mythology, allusion not explained, perhaps referring to color, described as “Reddish, variegated with green”

***Synchiropus phasis* (Günther 1880)**

etymology not explained, perhaps Latin spelling of Greek *phausis*, shining bright, referring to reddish-white color

***Synchiropus talarae* Hildebrand & Barton 1949**

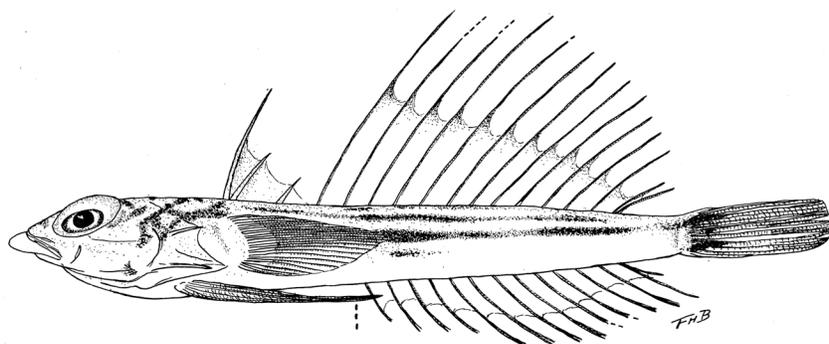
of Talara, Peru, type locality

***Synchiropus valdiviae* (Trunov 1981)**

of Valdivia Bank, Walvis Ridge area, eastern South Atlantic, 210-235 m, type locality

***Tonlesapia* Motomura & Mukai 2006**

-ia, belonging to: Lake Tonle Sap, Cambodia, where *T. tsukawakii* is endemic



Centrodraco oregonus. From: Briggs, J. C. and F. H. Berry. 1959. The Draconettidae — a review of the family with the description of a new species. *Copeia* 1959 (no. 2): 123-133.

***Tonlesapia amnica* Ng & Rainboth 2011**

pertaining to a river, referring to its habitat in the Mekong River delta of southern Viêt Nam

***Tonlesapia tsukawakii* Motomura & Mukai 2006**

in honor of marine geologist Shinji Tsukawaki, Kanazawa University, for his “kind and invaluable” assistance (e.g., arranging accommodations) during the authors’ ichthyological surveys in Cambodia

Family DRACONETTIDAE Sloped Dragonets

2 genera · 14 species

***Centrodraco* Regan 1913**

kentron, thorn or spine; *draco*, short for *Draconetta*, differing from that genus in having “stout and pungent” dorsal spines

***Centrodraco abstractum* Fricke 2002**

abstract, referring to body coloration, reminiscent of some works of abstract art

***Centrodraco acanthopoma* (Regan 1904)**

akantha, thorn; *poma*, lid or covering, referring to strong spine on reduced operculum

***Centrodraco atrifilum* Fricke 2010**

ater, black; *filum*, thread, referring to black filament on second spine of first dorsal fin

***Centrodraco fidelis* Fricke 2015**

loyal, referring to southern Loyalty Ridge, New Caledonia, type locality

***Centrodraco gegonipa* (Parin 1982)**

combination of the first two letters of both first and last names of Russian ichthyologist Georgy Golovan (GeGo) and Ukrainian ichthyologist Nikolay Pakhorukov (NiPa), who collected type specimens [often incorrectly spelled *gegonipus*]

***Centrodraco insolitus* (McKay 1971)**

uncommon, i.e., out of the ordinary or unusual; McKay erroneously placed it in Percophidae (Pempferiformes), from which it differs by being scaleless

***Centrodraco lineatus* Fricke 1992**

lined, referring to parallel lines on sides of body

***Centrodraco nakaboi* Fricke 1992**

in honor of Tetsuji Nakabo (b. 1949), Kyoto University (Japan), who reported this species as *C. acanthopoma* in 1982

***Centrodraco oregonus* (Briggs & Berry 1959)**

commemorating the “important work” of the U.S. Fish and Wildlife Service exploratory fishing vessel *Oregon* in “contributing to the knowledge of Western Atlantic ichthyology” (type was collected at *Oregon* station 2080 off the coast of Brazil)

***Centrodraco ornatus* (Fourmanoir & Rivaton 1979)**

adorned or decorated, referring to irregular yellow-green bands on lilac-pink back

***Centrodraco pseudoxenicus* (Kamohara 1952)**

pseudo-, false, i.e., although this species is “very near” *Draconetta xenica* (its presumed congener at the time) in appearance, such a resemblance is false



Mulloidichthys flavolineatus flavicaudus. From: Fernandez-Silva, I., J. E. Randall, D. Golani and S. V. Bogorodsky. 2016. *Mulloidichthys flavolineatus flavicaudus* Fernandez-Silva & Randall (Perciformes, Mullidae), a new subspecies of goatfish from the Red Sea and Arabian Sea. *ZooKeys* No. 605: 131-157.

***Centrodraco rubellus* Fricke, Chave & Suzumoto 1992**

reddish, referring to overall red to brownish-pink coloration in life (disappears in alcohol)

***Centrodraco striatus* (Parin 1982)**

striped, referring to ~11 vertical dark streaks or stripes on body

***Draconetta* Jordan & Fowler 1903**

a “quasi-Latin form of the English name Dragonet”

***Draconetta xenica* Jordan & Fowler 1903**

strange, allusion not explained, possibly referring to its differences compared to Japanese dragonets of the family Callionymidae (e.g., no lateral line)

Suborder MULLOIDEI

Family MULLIDAE Goatfishes

6 genera · 107 species/subspecies

***Mulloidichthys* Whitley 1929**

replacement name for *Mulloides* Bleeker 1849, preoccupied by *Mulloides* Richardson 1843 (= *Arripis*, Arripidae, Scombriformes), originally *-oides*, having the form of: *Mullus*, original genus of type species, *M. flavolineatus*, but differing in dentition; *ichthys*, fish

***Mulloidichthys ayliffe* Uiblein 2011**

in honor of Neville Ayliffe, former dive operator at Sodwana, South Africa (type locality), who has assisted the South African Institute of Aquatic Biodiversity in acquiring important fish collections over many years; he collected type specimens using a speargun [a noun in apposition, without the genitive “i”]

***Mulloidichthys dentatus* (Gill 1862)**

toothed, referring to “rather strong” teeth, uniserial in upper jaw and biserial in front lower, by which it “differs widely” from *Upeneus flavovittatus* (= *M. martinicus*)

***Mulloidichthys flavolineatus flavolineatus* (Lacepède 1801)**

flavus, yellow; *lineatus*, lined, referring to straight yellow mid-lateral body stripe

***Mulloidichthys flavolineatus flavicaudus* Fernandez-Silva & Randall 2016**

flavus, yellow; *caudus*, tail, a subspecies of *M. flavolineatus* with a yellow rather than whitish-gray caudal fin

***Mulloidichthys martinicus* (Cuvier 1829)**

-icus, belonging to: Martinique Island, West Indies, type locality (but occurs on both sides of the tropical Atlantic)

- Mulloidichthys mimicus** Randall & Guézé 1980
imitative, named for its resemblance to the snapper *Lutjanus kasmira* (Lutjaniformes: Lutjanidae), with which it was seen schooling
- Mulloidichthys pfluegeri** (Steindachner 1900)
patronym not identified, possibly German physiologist Eduard Friedrich Wilhelm Pflüger (1829-1910)
- Mulloidichthys vanicolensis** (Valenciennes 1831)
-ensis, suffix denoting place: Vanikoro Island (wrongly spelled Vanicolo), Santa Cruz Islands, southwestern Pacific, type locality (but widely occurs in Red Sea and Indo-West Pacific)
- Mullus Linnaeus 1758**
ancient name for mullet, dating to at least Aristotle, referring to the “red mullets” or “surmulletts,” *M. barbatus* and *M. surmulentus*
- Mullus argentinae argentinae** Hubbs & Marini 1933
of Argentina, where type locality (Port of Quequén) is situated (occurs in southwestern Atlantic from southern Brazil to Argentina)
- Mullus argentinae africanus** Vasil'eva 2011
-anus (L.), belonging to: Eastern Atlantic off the coast of Africa, where it occurs
- Mullus auratus** Jordan & Gilbert 1882
gilded, proposed as a subspecies of *M. barbatus* with a yellow instead of a black band on dorsal fin
- Mullus barbatus barbatus** Linnaeus 1758
bearded, referring to pair of long chin barbels (similar to the chin hair of a goat, hence the common name “goatfish”)
- Mullus barbatus ponticus** Essipov 1927
-icus, belonging to: Pontos, ancient Greek name for the Black Sea, where it is endemic
- Mullus surmuletus** Linnaeus 1758
latinization of the French *surmulet* (Middle French *sormulet*), from *sor*, reddish brown (referring to its color) and *mulet*, mullet
- Parupeneus Bleeker 1863**
para-, near, i.e., close to *Upeneus* but differing in dentition
- Parupeneus angulatus** Randall & Heemstra 2009
angled, referring to “obtusely angular posterior edge of the maxilla”
- Parupeneus barberinoides** (Bleeker 1852)
-oides, having the form of: similar to *P. barberinus* but differing in color, two fewer rays in pectoral fin, and shorter chin barbels
- Parupeneus barberinus** (Lacepède 1801)
etymology not explained; a manuscript name of unknown provenance coined by Commerçon, perhaps derived from *barbus*, beard, referring to long chin barbels
- Parupeneus biaculeatus** (Richardson 1846)
bi-, two; *aculeatus*, spined, allusion not explained, perhaps referring to “conspicuous” opercular spines, the upper one short and blunt, the lower one long and acute
- Parupeneus chrysonemus** (Jordan & Evermann 1903)
chrysos, gold; *nema*, thread, referring to golden barbels of living specimens
- Parupeneus chrysopleuron** (Temminck & Schlegel 1843)
chrysos, gold; *pleuron*, side, referring to golden-yellow stripe on sides along lateral line
- Parupeneus ciliatus** (Lacepède 1802)
ciliate, referring to posterior half of scales “finely striate and ciliate” (translation)
- Parupeneus crassilabris** (Valenciennes 1831)
crassus, wide; *labrum*, lip, referring to its “very thick” (translation) lips
- Parupeneus cyclostomus** (Lacepède 1801)
cyclos, round or circular; *stoma*, mouth, referring to open mouth forming a “very large portion of a circle”
- Parupeneus diagonalis** Randall 2004
diagonal, referring to oblique dark stripe on body, its most conspicuous color feature
- Parupeneus forsskali** (Fourmanoir & Guézé 1976)
in honor of Swedish explorer and naturalist Peter Forsskål, also known as Petrus Forsskål (1732-1763), who described this species as *Mullus auriflamma* in 1775, a name later suppressed by the ICZN because it was based on a specimen (now believed to be distinct) of *P. barberinus*; since the name was officially suppressed, it cannot be

resurrected

***Parupeneus fraserorum* Randall & King 2009**

-*orum*, commemorative suffix, plural: in honor of Michael D. Fraser (b. 1955) and his wife Valda J. Fraser (b. 1957), divers and underwater photographers; he collected type and she provided the authors with a photograph, their first awareness of the species

***Parupeneus heptacantha* (Lacepède 1802)**

hepta-, seven; *acantha*, spine, referring to seven spiny rays in first dorsal fin, compared to 6 or 10 in three species
Lacepède placed in the same subgenus [often incorrectly spelled *heptacanthus*]

***Parupeneus inayatae* Uiblein & Fahmi 2018**

in honor of Inayat Al Hakim, marine biodiversity scientist at the Research Centre for Oceanography, Indonesian Institute of Sciences (LIPI), Jakarta, Indonesia, for her support of fish taxonomy and invaluable logistic assistance when hosting the senior author at LIPI during research visits

***Parupeneus indicus* (Shaw 1803)**

Indian, described from Visgapatam (now spelled Vishakhapatnam), India (but widely occurs throughout Indo-West Pacific)

***Parupeneus insularis* Randall & Myers 2002**

of islands, referring to its occurrence only on oceanic islands of the Pacific, whereas the closely related *P. crassilabris* and *P. trifasciatus* also occur in continental waters

***Parupeneus janseni* (Bleeker 1856)**

in honor of Albert Jacques Frédéric Jansen (d. 1861), an administrator in the Dutch East Indies (now Indonesia) and resident of Sulawesi, who provided type

***Parupeneus louise* Randall 2004**

in honor of Louise Wrobel, Service des Ressources Marines (Papete, Tahiti, French Polynesia, type locality), who realized holotype (caught on hook and line) was unusual and sent it to Randall for examination [a noun in apposition, without the genitive “*ae*”]

***Parupeneus macronemus* (Lacepède 1801)**

macro-, long; *nema*, thread, referring to long chin barbels, 1.1-1.25 in HL

***Parupeneus margaritatus* Randall & Guézé 1984**

adorned with pearls, referring to pearl-like (white to light blue) spots along sides of body

***Parupeneus minys* Randall & Heemstra 2009**

small, referring to very small adult size compared to congeners, up to 106.5 mm SL

***Parupeneus moffitti* Randall & Myers 1993**

in honor of Robert B. Moffitt, Honolulu Laboratory of the National Marine Fisheries Services, who collected and photographed the first specimens

***Parupeneus multifasciatus* (Quoy & Gaimard 1825)**

multi-, many; *fasciatus*, banded, referring to five black or blackish bars on body (usually just 2-3 bars, as some are faint or absent)

***Parupeneus nansen* Randall & Heemstra 2009**

named for the research vessel *Dr. Fridtjof Nansen*, from which type specimens were collected, and to honor the “famous” Norwegian explorer and scientist (1861-1930) for whom the vessel was named; during the cruise, the scientific staff referred to this fish as the “Nansen Goatfish”

***Parupeneus orientalis* (Fowler 1933)**

eastern, referring to Easter Island, where it is endemic (“eastern” and Easter Sunday, for which the island is named, are both derived from a Proto-Indo-European word meaning “dawn”)

***Parupeneus pleurostigma* (Bennett 1831)**

pleuron, side; *stigma*, mark or spot, referring to black spot, as large or larger than eye, centered on lateral line below rear base of first dorsal fin

***Parupeneus porphyreus* (Jenkins 1903)**

purplish; although this color is not mentioned in the description, the fish is indeed a purplish red

***Parupeneus posteli* Fourmanoir & Guézé 1967**

patronym not identified, probably in honor of Emile Postel, ORSTOM (Office de la Recherche Scientifique et Technique d’Outre-Mer), who studied the fishes of Réunion Island (type locality) and collaborated with the authors on a paper on serranid fishes in 1963

***Parupeneus procerigena* Kim & Amaoka 2001**

procerus, tall or elongate; *genys*, cheek, referring to deeper cheek compared to the similar *P. chrysopteron* and *P. heptacantha*

- Parupeneus rubescens* (Lacepède 1801)**
reddish, referring to color of body and tail
- Parupeneus seychellensis* (Smith & Smith 1963)**
-*ensis*, suffix denoting place: Seychelles, western Indian Ocean, where it is endemic
- Parupeneus sinai* Uiblein 2021**
named after the Sinai Peninsula, which borders the northern Red Sea including the Gulf of Suez and Gulf of Aqaba, where holotype is assumed to have been collected by Robert-Philippe Dollfus (1887-1976), French zoologist, during his research mission in that area from December 1927 to March 1929
- Parupeneus spilurus* (Bleeker 1854)**
spilos, spot; *oura*, tail, referring to black spot, as large as or larger than eye, on sides of caudal peduncle
- Parupeneus trifasciatus* (Lacepède 1801)**
tri-, three; *fasciatus*, banded, described from an illustration showing three black bars (usually seen with two black to blackish bars, but a third bar is sometimes present on caudal peduncle above lateral line)
- Parupeneus williamsi* Shibuya & Motomura 2020**
in honor of Jeffrey T. Williams, U.S. National Museum of Natural History, for his “great” contributions to ichthyology, and who “kindly” made available all examples of this species
- Pseudupeneus* Bleeker 1862**
pseudo-, false, i.e., although this genus may resemble *Upeneus*, they differ in dentition
- Pseudupeneus grandisquamis* (Gill 1863)**
grandis, large; *squamis*, scale, allusion not explained, probably referring to larger scales compared to presumed congeners in *Upeneus*, 28-30 on lateral line
- Pseudupeneus maculatus* (Bloch 1793)**
spotted, referring to three large dark blotches on sides
- Pseudupeneus prayensis* (Cuvier 1829)**
-*ensis*, suffix denoting place: Port Praya, Cape Verde Islands, eastern Atlantic, type locality (occurs in western Mediterranean Sea and eastern Atlantic from Morocco south to Angola, and offshore islands including São Tomé and Príncipe)
- Upeneichthys* Bleeker 1853**
Upeneus, similar to that genus but differing in having no teeth on palatines (per Bleeker 1856); *ichthys*, fish [often but incorrectly dated to Bleeker 1855]
- Upeneichthys lineatus* (Bloch & Schneider 1801)**
lined, proposed as a variety or subspecies of *Mullus surmuletus* with blue lines on the head (also has lines of blue dots along the sides, but this is not mentioned)
- Upeneichthys porosus* (Cuvier 1829)**
pored, referring to a “quantity of very small pores” (translation) on front of snout, suborbital, and around the eyes [treated as a subspecies of *U. lineatus* by some workers]
- Upeneichthys stotti* Hutchins 1990**
in honor of Chris Stott, who, while an honorary field assistant for the Western Australian Museum, was involved in the collection of two paratypes
- Upeneichthys vlamingii* (Cuvier 1829)**
in honor of Admiral Cornelis de Vlamingh (ca. 1678-1735), Dutch explorer and naval officer, who collected and illustrated many fishes for the Muséum national d’Histoire naturelle (Paris); description of this goatfish was based in part on one of his illustrations (actually a copy made by another illustrator)
- Upeneus* Cuvier 1829**
misspelling or incorrectly latinized form of *hypene*, Greek noun for moustache (or by extension beard), probably referring to long chin barbels (Miguel A. Alonso-Zarazaga, pers. comm.)
- Upeneus alama* Uiblein & Motomura 2025**
in honor of the late Ulysses Banga Alama (1959–2023), manager of the fish collection at the College of Fisheries and Ocean Sciences, University of the Philippines Visayas (Miagao, Iloilo, Philippines), for his contributions to marine ichthyology [a noun in apposition, without the genitive “i”]
- Upeneus andamanensis* Uiblein & Rajan 2024**
-*ensis*, Latin suffix denoting place: Andaman Islands, India, where type locality (Junglihat fish market and landing site, Port Blair) is situated
- Upeneus aurorae* Uiblein & Rajan 2024**
named for Aurora Province, Luzon, Philippines, in the Western Pacific, type locality

***Upeneus asymmetricus* Lachner 1954**

asymmetrical, i.e., not equal, referring to “unusually reduced” number of oblique brown bars on upper lobe of caudal fin (3) compared to lower lobe (6-7)

***Upeneus australiae* Kim & Nakaya 2002**

of Australia, referring to its discovery in Australian waters (also occurs off New Caledonia)

***Upeneus brevianalis* Uiblein & Boonphienphol 2025**

brevis (L.), short; *analis* (L.), referring to its short anal fin, an important diagnostic character of this species

***Upeneus brevignathus* Uiblein & Rajan 2024**

brevis, short; *gnathus*, jaw, referring to “rather short” jaw when compared with congeners, such as the “relatively similar” *U. pori*

***Upeneus caudofasciatus* Uiblein & Gledhill 2019**

caudo-, caudal; *fasciatus*, banded, referring to conspicuous oblique bars that cross both caudal-fin lobes entirely

***Upeneus davidaromi* Golani 2001**

in honor of marine biologist David Darom (b. 1943), “who has published many photographs and books on natural history and on Red Sea fauna and flora”; he also provided photo of type specimen

***Upeneus dimipavlov* Uiblein & Motomura 2021**

in honor of ichthyologist Dimitri Alexandrovich “Dimi” Pavlov, Lomonosov University (Moscow, Russia), for collecting, photographing and donating mullid specimens from Vietnam (including this one, from hookah divers) for taxonomic research [a noun in apposition, without the genitive “i”]

***Upeneus doriae* (Günther 1869)**

in honor of zoologist Giacoma Doria (1840-1913), president of the Italian Geographic Society, who collected fishes in Persia (now Iran) and sent them to the British Museum (Natural History), including type of this one [although named after a man, some classically trained zoologists latinized the names of individuals whose names ended with the letter “a” by adding an “e” to the spelling]

***Upeneus elongatus* Uiblein & Motomura 2021**

elongate, referring to its elongate, “very shallow” body and head

***Upeneus farnis* Uiblein & Peristiwady 2017**

in honor of Farnis Boneka, Department of Fisheries and Marine Science, Sam Ratulangi University (Manado, Sulawesi, Indonesia), for his efforts in support of fish taxonomy and the authors’ research [a noun in apposition, without the genitive “i”]

***Upeneus filifer* (Ogilby 1910)**

filum, thread; *fero*, to bear, referring to long, filamentous spine of first dorsal fin [authorship sometimes but incorrectly attributed to Whitley 1941]

***Upeneus floros* Uiblein & Gouws 2020**

in honor of marine biologist Camilla Floros, South African Association for Marine Biological Research, Oceanographic Research Institute (Durban, South Africa), who organized the collection of holotype and two paratypes and provided photographs of the types as well as of specimens encountered at type locality (Sodwana Bay, South Africa) [a noun in apposition, without the genitive “ae”]

***Upeneus francisi* Randall & Guézé 1992**

in honor of fisheries scientist and marine ecologist Malcolm P. Francis (b. 1954), for his research on the fishes of New Zealand, Norfolk Island, Lord Howe Island, and the Kermadec Islands; he also collected type

***Upeneus gubal* Uiblein 2019**

named for type locality, situated close to Gubal Island and in the Strait of Gubal at southern entrance to Gulf of Suez, northern Red Sea

***Upeneus guttatus* (Day 1868)**

spotted, referring to a row of red spots both above and below silvery lateral stripe

***Upeneus heemstra* Uiblein & Gouws 2014**

in honor of “esteemed” ichthyologist Phillip C. Heemstra (1941-2019), who collected and photographed holotype, and his wife Elaine Heemstra, who provided drawings and assistance throughout the authors’ study [presumably a noun in apposition without the plural genitive “-orum”]

***Upeneus heterospinus* Uiblein & Pavlov 2019**

hetero-, different; *spinus*, spine, referring to variable number of 7-8 dorsal-fin spines (occurring in a balanced ratio across populations), in contrast to most other goatfish species and all other Indo-Pacific congeners, which have either 7 or 8 dorsal-fin spines

***Upeneus huan* Uiblein & Rajan 2024**

in honor of Vietnamese ecologist Huan Cong Tran, who “strongly supported the collaboration in goatfish tax-

onomy” between the two authors [a noun in apposition, without the genitive “i”]

***Upeneus indicus* Uiblein & Heemstra 2010**

Indian, referring to Cochin, western India, type locality

***Upeneus itoui* Yamashita, Golani & Motomura 2011**

in honor of Masahide Itou (sometimes spelled Ito), Kasasa Fishery Cooperative Society (Kagoshima, Japan) who collected almost all Kagoshima specimens of this species and “kindly” made them available to the authors

***Upeneus japonicus* (Houttuyn 1782)**

Japanese, originally described from Japan (type specimen now lost; occurs in western Pacific from Malaysia east to Philippines, north to South Korea and Peter the Great Bay of Russia)

***Upeneus lombok* Uiblein & White 2015**

named for Lombok, Indonesia, eastern Indian Ocean, type locality (also occurs off New Ireland, Papua New Guinea)

***Upeneus luzonius* Jordan & Seale 1907**

-*ius*, belonging to: Luzon Island, Philippines, type locality

***Upeneus madras* Uiblein & Maclaine 2022**

named for Madras (now called Chennai), southeast India, type locality

***Upeneus margarethae* Uiblein & Heemstra 2010**

in honor of the late Margaretha Uiblein (née Feichtinger), mother of the senior author

***Upeneus mascarensis* Fourmanoir & Guézé 1967**

-*ensis*, suffix denoting place: western Mascarenes, southwestern Indian Ocean, where type locality (Réunion) is situated (also occurs off east Africa, Madagascar and western Indonesia)

***Upeneus moluccensis* (Bleeker 1855)**

-*ensis*, suffix denoting place: Molucca Islands, Indonesia, where type locality (Ambon Island) is situated (widely occurs in Red Sea and Indo-West Pacific and as a Lessepsian immigrant to the Mediterranean)

***Upeneus mouthami* Randall & Kulbicki 2006**

in honor of scientific diver Gerard Mou Tham, a colleague of the junior author, who assisted in the collection of many of the goatfishes studied by the authors and provided color photographs

***Upeneus niebuhri* Guézé 1976**

in honor of Carsten Niebuhr (1733-1815), German traveler, cartographer and mathematician, who, with Peter Forsskål, collected botanical and zoological specimens in Egypt and the Arabian Peninsula (1761-1767); Forsskål died from malaria during the expedition, so Niebuhr edited and published his descriptions, including that of the similar *U. vittatus*, the first goatfish to be described

***Upeneus nigromarginatus* Bos 2014**

nigro-, black; *marginatus*, edged or bordered, referring to black margins along both dorsal fins and dorsal lobe of caudal fin

***Upeneus oligospilus* Lachner 1954**

oligo-, few; *spilos*, mark or spot, referring to “faint, scattered, dusky spots” on sides of body, especially when compared with the prominent, numerous spots of *U. tragula*

***Upeneus parvus* Poey 1852**

small (for a goatfish), reaching just 20 cm

***Upeneus pori* Ben-Tuvia & Golani 1989**

in honor of hydrobiologist and biogeographer Francis Dov Por (1927-2014), Hebrew University of Jerusalem, for his contribution to the field of Lessepsian migration of organisms (which this goatfish is)

***Upeneus quadrilineatus* Cheng & Wang 1963**

quadri-, four; *lineatus*, lined, referring to four (or more) narrow, orange-yellow longitudinal stripes on living specimens

***Upeneus randalli* Uiblein & Heemstra 2011**

in honor of “esteemed” ichthyologist John E. Randall (1924-2020), Bishop Museum (Honolulu), who collected six of the seven paratypes, transferred holotype to the Bishop Museum collection and photographed fresh holotype used in the description

***Upeneus saiab* Uiblein & Lisher 2013**

in honor of the “importance and invaluable contributions of the South African Institute of Aquatic Biodiversity (SAIAB) as the primary scientific collection for taxonomic and systematic studies of the fish fauna of the Western Indian Ocean”

***Upeneus seychellensis* Uiblein & Heemstra 2011**

-*ensis*, suffix denoting place: known only from a single trawling station close to the southeastern edge of the

Seychelles Bank (western Indian Ocean)

***Upeneus spottocaudalis* Uiblein & Gledhill 2017**

spotto-, presumably a latinization of the Anglo-Saxon *spot*; *caudalis*, of the tail, referring to conspicuous rounded or triangular dark spots or blotches on lower caudal-fin lobe in both fresh and preserved specimens

***Upeneus stenopsis* Uiblein & McGrouther 2012**

stenos, narrow; *opsis*, appearance, referring to rather narrow (both in depth and width) caudal peduncle

***Upeneus suahelicus* Uiblein & Heemstra 2010**

-icus, belonging to: *sawahil*, Arabic word for coast, referring to its occurrence off the East African coast; a large part of this area speaks Swahili, which has the same derivation

***Upeneus subvittatus* (Temminck & Schlegel 1843)**

sub-, less than or somewhat; *vittatus*, striped, allusion not explained, perhaps referring to lighter, less prominent yellow stripes compared to *U. vittatus*

***Upeneus sulphureus* Cuvier 1829**

referring to “beautiful” (translation) sulphur-yellow color of sides, belly, and anal and ventral fins

***Upeneus sundaicus* (Bleeker 1855)**

-icus, belonging to: Sunda, large islands of western Indonesia, where Ambon Island (type locality) is situated (widely occurs in Indo-West Pacific from Mauritius and Persian Gulf east to Papua New Guinea, north to northern Viêt Nam and Philippines, south to northern Australia)

***Upeneus supravittatus* Uiblein & Heemstra 2010**

supra-, above, *vittatus*, striped (but in this case referring to the *vittatus* species group) referring to high gill-raker count and long pectoral-fin length, which in combination place this species “above” all others in the *vittatus* group

***Upeneus taeniopterus* Cuvier 1829**

taenio-, band; *pterus*, fin, presumably referring to oblique bars or bands on caudal fin, 9-14 on adults, 7-9 on subadults

***Upeneus torres* Uiblein & Gledhill 2014**

named for Torres Strait, north of Dalrymple Island, Queensland, Australia, type locality (also occurs off Vanuatu); the strait is named after Spanish maritime explorer Luis Váez de Torres (ca. 1565-ca. 1607), who recorded the first navigation of the strait that separates Australia from the island of New Guinea

***Upeneus tragula* Richardson 1846**

spear or javelin, referring to “Sea arrow” (allusion not evident), its vernacular name as reported by naturalist John Reeves (1774-1856), who presented a specimen to the British Museum

***Upeneus vanuatu* Uiblein & Causse 2013**

named for Vanuatu, South Pacific, only known area of occurrence

***Upeneus vittatus* (Forsskål 1775)**

striped, referring to yellow mid-lateral body stripes

***Upeneus willwhite* Uiblein & Motomura 2021**

in honor of ichthyologist William T. White, Australian National Fish Collection (Hobart, Australia), for collecting and photographing mullid specimens from Indonesia (including this one, from a fish market) and making them available for taxonomic research [a noun in apposition, without the genitive “i”]