# The ETYFish Project

COMMENTS: = v. 9.0 - 12 Dec. 2024

# Order TETRAODONTIFORMES (part 2 of 2)

#### Suborder MOLOIDEI

# Family MOLIDAE Molas or Ocean Sunfishes

3 genera · 5 species

#### Masturus Gill 1884

mast-, mastoid; oura, tail, referring to caudal fin (clavus) "extended backwards at the subaxial or submedian rays, and assuming a mastoid shape"

#### Masturus lanceolatus (Liénard 1840)

lanceolate, referring to shape of clavus (where dorsal and anal fins merge), forming a tail-like triangular lobe

#### Mola Koelreuter 1766

millstone, referring to its somewhat circular shape (not tautonymous with *Tetraodon mola* Linnaeus 1758 since Koelreuter proposed a new species, *M. aculeatus*, actually a juvenile *M. mola*)

#### Mola alexandrini (Ranzani 1839)

in honor of Antonio Alessandrini (1786-1861, note Latinization of name), Italian physician and anatomist, author of a detailed anatomical study of *Mola* gills published later that year

#### Mola mola (Linnaeus 1758)

millstone, referring to its somewhat circular shape

#### Mola tecta Nyegaard, Sawai, Gemmell, Gillum, Loneragan, Yamanoue & Stewart 2017

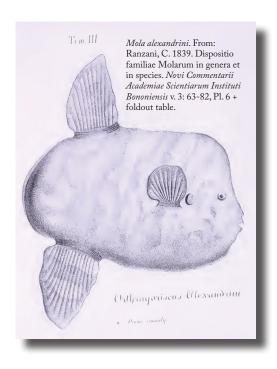
disguised or hidden, referring to how this species "evaded discovery for nearly three centuries, despite the keen interest among early sunfish taxonomists and the continued attention these curious fish receive"

# Ranzania Nardo 1840

-ia, belonging to: Camillo Ranzani (1775-1841), priest, naturalist and director of the Museum of Natural History of Bologna, for being the first to recognize Molidae as a distinct family [although authorship of family dates to Bonaparte 1835], and for "many other titles of merit in various branches of zoology" (translation)

# Ranzania laevis (Pennant 1776)

smooth, referring to smooth skin covered with small, hard, hexagonal plates



#### Suborder BALISTOIDEI

# Family BALISTIDAE Triggerfishes

12 genera · 40 species

#### Abalistes Jordan & Seale 1906

a-, not; Balistes, original genus of A. stellaris (=stellatus), which Jordan & Seale treated as type species

#### Abalistes filamentosus Matsuura & Yoshino 2004

filamentous, referring to upper and lower rays of caudal fin greatly produced into filaments

#### Abalistes stellatus (Anonymous 1798)

starry, referring to small white spots on upper body [based on manuscript description by *Commerçon*, published with a vernacular name by Lacepède in 1798, then assigned "stellatus" in an anonymous book review later that year, from whence the name dates; often confused with or treated as separate from *Abalistes stellaris* (Bloch & Schneider 1801), a junior synonym]

#### Balistapus Tilesius 1820

*a*-, without; *pous*, foot, i.e., a *Balistes* without pelvic fins (actually, like all balistids, pelvic fins are covered with skin and fused to form a spine terminated by very short rays, but in this case reduced to a ventral protrusion)

#### Balistapus undulatus (Park 1797)

wavy, referring to undulating red (actually orange) lines on body

#### Balistes Linnaeus 1758

*ballista*, a machine for throwing arrows, referring to two dorsal-fin spines, the first (anterior) spine locked in place by erection of the short second spine, which can be unlocked only by depressing the second "trigger" spine (name taken directly from the Italian name *Pesca Balistra*, the Cross-Bow Fish)

## Balistes capriscus Gmelin 1789

Latin for a small goat, allusion not explained, probably a mistranslation of its Greek name dating to Aristotle, *kápros* (boar) or *kaprískos* (little boar), referring to its sharp, powerful and perhaps also to a boar-like ferocity: per Roman author and naturalist Claudius Aelianus (ca. 175-ca. 235), *De Natura Animalium*, "they fight even with fish of greater bulk and with the most skilled fishermen" (Holger Funk, pers. comm.)

# Balistes polylepis Steindachner 1876

poly, many; lepis, scale, presumably referring to its small and numerous scales, 70-75 in a lengthwise series

# Balistes punctatus Gmelin 1789

spotted, referring to spots on upper body (also on dorsal fins)

#### Balistes vetula Linnaeus 1758

old woman or old wife, Latin cognate of the Cuban name *Vieja* as recorded by Parra (1787), apparently following a Portuguese tradition of giving labrids (and other larger fishes, e.g., cichlids and balistids) vernacular names alluding to women; according to Shaw (1804, *General Zoology Volume 5, Part 2: Pisces*), "It is supposed to have obtained the popular title of Old Wife Fish from the appearance of the mouth when viewed in front, as well as from the slightly murmuring noise which it utters when first taken."

#### Balistes willughbeii Lay & Bennett 1839

in honor of Francis Willughby (sometimes spelled Willoughby, 1635-1672), British ichthyologist and ornithologist, who wrote one of the earliest accounts of this species in 1686

# Balistoides Fraser-Brunner 1935

-oides, having the form of: Balistes, original genus of B. viridescens

# Balistoides conspicillum (Bloch & Schneider 1801)

spectacles, referring to broad stripe between nose and eyes, like a pair of spectacles

## Balistoides viridescens (Bloch & Schneider 1801)

greenish, referring to predominant body color of adults

#### Canthidermis Swainson 1839

[a] canthus, thorn or spine; dermis, skin, referring to body "entirely covered with minute spines or prickles, exclusive of those larger ones on the tail"

## Canthidermis macrolepis (Boulenger 1888)

macro-, long or large; lepis, scale, referring to enlarged scales on posterior body and tail

#### Canthidermis maculata (Bloch 1786)

spotted, referring to small white spots usually covering body

## Canthidermis rotundata (Marion de Procé 1822)

round, allusion not explained and no types known (may represent a juvenile C. maculata)



Balistoides conspicillum, holotype. © Muséum National d'Histoire Naturelle, Collection d'Ichtyologie.

#### Canthidermis sufflamen (Mitchill 1815)

an impediment, referring to how second dorsal-fin spine prevents the depression of the first

## Melichthys Swainson 1839

etymology not explained, perhaps *melas*, black and *ichthys*, fish, referring to black body color of *M. niger* (although Swainson did not include this species in his description; in fact, none of his four included species are black except for *Balistes* [*M.*] *praslinensis* [=*Rhinecanthus verrucosus*], which has a large black spot on underside anterior to anal fin)

#### Melichthys indicus Randall & Klausewitz 1973

Indian, referring to Indian Ocean (including Red Sea) and Indo-Australian Archipelago, where it is endemic

## Melichthys niger (Bloch 1786)

black, referring to body color (especially when seen from a distance), but is actually dark blue or green upon closer inspection (also, fish can change its color based on its surroundings)

## Melichthys vidua (Richardson 1845)

widow, allusion not explained, perhaps referring to brownish-black coloration in life

## **Odonus Gistel 1848**

toothed, replacement name for Xenodon Rüppell 1836 (xenos, strange or foreign, i.e., different; odon, tooth, preoccupied by Xenodon Boie 1826 in snakes), presumably originally referring to its "beautiful lacquer-red" (translation) teeth, the upper two teeth projecting and canine-like

# Odonus niger (Rüppell 1836)

black, referring to greenish-black color of body and fins (dark blue to purplish blue according to contemporary accounts and photographs)

#### Pseudobalistes Bleeker 1865

pseudo-, false, originally proposed as a subgenus of Balistes (i.e., not representing the true form of the genus)

# Pseudobalistes flavimarginatus (Rüppell 1829)

flavus, yellow; marginatus, edged or bordered, referring to yellow margins on fins

# Pseudobalistes fuscus (Bloch & Schneider 1801)

dark or dusky, referring to predominantly brown body color

#### Pseudobalistes naufragium (Jordan & Starks 1895)

shipwreck, referring to four type specimens obtained with dynamite near the wreck of a French man-of-war in the Astillero (shipyard) at Mazatlán, México

# Rhinecanthus Swainson 1839

rhine, rasp; acanthus, thorn or spine, proposed as a subgenus of Balistes with a rough, instead of smooth, first dorsal-fin spine

#### Rhinecanthus abyssus Matsuura & Shiobara 1989

deep, referring to its occurrence in deeper water (130-150 m) compared to shallow-water congeners

## Rhinecanthus aculeatus (Linnaeus 1758)

sharp-pointed, allusion not explained, presumably referring to three rows of small, black antrorse spines on caudal peduncle

#### Rhinecanthus assasi (Fabricius 1775)

Latinization of Azzazi, its Arabic name along the Red Sea of Saudi Arabia, type locality

#### Rhinecanthus cinereus (Bonnaterre 1788)

ash-colored, referring to "ash gray" (translation) color of back

#### Rhinecanthus lunula Randall & Steene 1983

somewhat moon-shaped, referring to large crescentic mark (black in adults, yellow in juveniles) on caudal fin

#### Rhinecanthus rectangulus (Bloch & Schneider 1801)

rectangular, allusion not explained, perhaps referring to its more angular body shape compared to other, more ellipsoid triggerfishes known at the time

#### Rhinecanthus verrucosus (Linnaeus 1758)

covered with verrucae, or warts, referring to three rows of warts (actually small black spines) on caudal peduncle

#### Sufflamen Jordan 1916

impediment, a name used by Mitchill for the "trigger" of triggerfishes (see Canthidermis sufflamen, above)

## Sufflamen albicaudatum (Rüppell 1829)

albus, white; caudatus, tailed, referring to white margin around caudal fin

#### Sufflamen bursa (Bloch & Schneider 1801)

hide, skin or leather, or pouch or purse made of leather, from *bourse*, a French vernacular name for his species, allusion not evident

#### Sufflamen chrysopterum (Bloch & Schneider 1801)

chrysos, gold; pterus, fin, described as having yellow fins (contemporary descriptions and photographs indicate only a yellowish-brown triangle edged in white on the tail)

#### Sufflamen fraenatum (Latreille 1804)

bridled, referring to yellow stripe from upper lip almost to pectoral-fin base on males

#### Sufflamen verres (Gilbert & Starks 1904)

a young boar, allusion not explained, probably referring to one of its common names in Spanish, *cochino naranja*, "orange pig"

#### Xanthichthys Kaup 1856

etymology not explained, perhaps *xanthus*, yellow and *ichthys*, fish, but only juveniles of the type species, *X. curassavicus* (=*ringens*), which swim in floating *Sargassum*, could be considered yellow or yellowish in color; Jordan & Evermann (1898) suggest that *Xanthium*, the cocklebur, was the intended reference but do not provide a meaning

## Xanthichthys auromarginatus (Bennett 1832)

auro-, gold; marginatus, edged or bordered, referring to yellow margin on fins

#### Xanthichthys caeruleolineatus Randall, Matsuura & Zama 1978

caeruleus, blue; lineatus, lined, referring to thin pale-blue stripe, separating upper and lower body colors, from pectoral fin to the tail

# Xanthichthys greenei Pyle & Earle 2013

in honor of ichthyologist Brian D. Greene (b. 1980), Bishop Museum (Honululu) and University of Hawaii, a member of the deep-diving team who discovered this species, for his efforts to collect the type specimens

#### Xanthichthys lineopunctatus (Hollard 1854)

*lineo*-, line; *punctatus*, spotted, referring to dark-brown longitudinal lines, sometimes interrupted, on upper body, becoming dark-brown spots on lower body [X. lima (Bennett 1832) is a senior synonym but the junior name is retained due to prevailing usage]

#### Xanthichthys mento (Jordan & Gilbert 1882)

having a long chin, referring to chin protruding beyond mouth

#### Xanthichthys ringens (Linnaeus 1758)

gaping, snarling or showing the teeth, allusion not explained, perhaps referring to any or all of the following: small mouth that opens upwards, projecting lower jaw, heavy outer teeth on both jaws, notched and uneven in size

#### Xenobalistes Matsuura 1981

xenos, strange or foreign (i.e., different), Balistes, type genus of family, referring to "great" protuberance just below pectoral fin, not found in any other balistid species (known only from a specimen found in the stomach contents of the marlinfish Makaira mazara; possibly a prejuvenile specimen of Xanthichthys)

# Xenobalistes tumidipectoris Matsuura 1981

tumidus, swollen; pectoris, pectoral, referring to "greatly expanded coracoid supporting the large rounded protuberance just below the pectoral fin" (possibly a prejuvenile specimen of Xanthichthys)

## Family MONACANTHIDAE Filefishes

27 genera · 109 species

#### Acanthaluteres Bleeker 1865

acanthus, thorn or spine, allusion not explained, perhaps referring to stout, serrated, four-edged dorsal-fin spine of A. paragaudatus (=spilomelanurus); Aluteres, original genus of A. paragaudatus

## Acanthaluteres brownii (Richardson 1846)

in honor of Robert Brown (1773-1858), botanist and naturalist aboard Capt. Flinders' 1801-1805 *Investigator* expedition to Australia, during which type was collected; Brown "kindly permitted" Richardson to examine "highly finished coloured drawings" of the fish, upon which description is based

#### Acanthaluteres spilomelanurus (Quoy & Gaimard 1824)

spilos, mark or spot; melano-, black; oura, tail, referring to distinctive black band near edge of tail of males

## Acanthaluteres vittiger (Castelnau 1873)

vitta, band or stripe; -iger, to bear, referring to an "irregular but broad" longitudinal band on side of males extending from snout to tail

## Acreichthys Fraser-Brunner 1941

proposed as a subgenus of *Pervagor*, etymology not explained, perhaps *acre*, sharp, referring to dorsal spine of *A. tomentosus* not lying in a groove when depressed, unlike the dorsal spine of *Pervagor*, and/or *acros*, top or summit, referring to the imposing appearance of that strong dorsal spine; *ichthys*, fish

#### Acreichthys hajam (Bleeker 1851)

from Ikan Hajam (ikan=fish), its local name in Jakarta, Java, Indonesia, type locality

#### Acreichthys radiatus (Popta 1900)

radiating, allusion not explained, probably referring to white lines radiating from eye onto the head but possibly also referring to "each scale with curved lines radiating towards the centrum"

## Acreichthys tomentosus (Linnaeus 1758)

covered with matted wool or short hairs, referring to hair-like bristles on tail of adult male

## Aluterus Cloquet 1816

Latinization of "Les Alutères" of Cuvier 1816, etymology not explained, perhaps from *alutarius*, of soft leather, referring to "body covered with small and scarcely visible granules" (translation); some sources (e.g., FishBase) suggest name translates as *a*-, not and *luteros*, one who is free, i.e., detached, referring to absence of spine at end of pelvic bone, but that appears to be an incorrect translation of the Greek (Holger Funk, pers. comm.) and, even if it were correct, seems a cumbersome and far-fetched allusion to us

# Aluterus heudelotii Hollard 1855

in honor of Jean-Pierre Heudelot (1802-1837), botanist, agriculturalist, and explorer, who brought type to France from Senegal

## Aluterus monoceros (Linnaeus 1758)

*mono*-, one; *ceros*, horn, referring to first dorsal-fin spine situated on head above the eyes, like the horn of a unicorn (based on *Balistes monoceros* Osbeck 1757, predating the official 1758 start of zoological nomenclature by less than a year)

## Aluterus schoepfii (Walbaum 1792)

in honor of German naturalist and military surgeon Johann David Schöpf (1752-1800), who explored the United States and the Bahamas (1783-1784), studying their natural history; Walbaum's description is based on Schöpf's 1788 account of this species

#### Aluterus scriptus (Osbeck 1765)

written, referring to scribble-like markings (irregular blue spots and short lines) on body

## Amanses Gray 1835

etymology not explained nor evident

## Amanses scopas (Cuvier 1829)

brush or broom, referring to dense, brush-like mass of long setae projecting from sides of females between soft dorsal and anal fins (males have a sheaf of long needle-like spines)

## Anacanthus Gray 1830

an-, without; acanthus, spine, allusion not explained but almost certainly referring to inconspicuous dorsal-fin spine

# Anacanthus barbatus Gray 1830

bearded, allusion not explained but almost certainly referring to chin barbel

#### Arotrolepis Fraser-Brunner 1941

arotron, plow; lepis, scale, allusion not explained, perhaps referring to scales of A. barbarae (=Paramonacanthus otisensis)

in a "distinct longitudinal series," like a freshly plowed field

# Arotrolepis filicauda (Günther 1880)

filum, thread; cauda, tail, referring to upper caudal-fin ray prolonged into a filament

#### Brachaluteres Bleeker 1865

brachys, short, referring to shorter, deeper body compared to Aluteres (=Aluterus), original genus of B. trossulus (=jacksonianus)

#### Brachaluteres fahaqa Clark & Gohar 1953

Arabic word meaning "to gasp in water," referring to its ability to greatly inflate their abdomens with water when threatened, thus increasing their body size

#### Brachaluteres jacksonianus (Quoy & Gaimard 1824)

-anus, belonging to: Port Jackson, New South Wales, Australia, type locality (occurs in eastern Indian Ocean and western Pacific from southern Australia to New Caledonia)

#### Brachaluteres taylori Woods 1966

in honor of botanist William Randolph Taylor (1895-1990), University of Michigan; he collected type while conducting a botanical survey of Marshall Islands in the South Pacific prior to, and immediately after, the testing of atomic bombs

#### Brachaluteres ulvarum Jordan & Fowler 1902

-arum, genitive suffix, plural: belonging to *Ulva*, a genus of sea lettuce, referring to its occurrence "on the bottom of green sea weeds"

#### Cantherhines Swainson 1839

etymology not explained, perhaps *canth*, abridgement of *akánthēs*, genitive of *ákantha*, Greek for thorn or spine, and *rhínēs*, Greek for rasp or file, referring to "granulated" body of *C. nasutus* (=sandwichiensis), i.e., numerous small spinules on scales; another possibility, albeit a remote one, is that *rhines* is a misspelling of *rhinus*, snout, referring to snout of *C. sandwichiensis*, which Swainson unnecessarily renamed *nasutus* (=long-nosed) without explanation

#### Cantherhines cerinus Randall 2011

waxen or yellowish, referring to ground color of fresh specimens

# Cantherhines dumerilii (Hollard 1854)

in honor of August Duméril (1812-1870), herpetologist and ichthyologist, Muséum national d'Histoire naturelle (Paris), who made type and other monacanthid specimens available to Hollard

# Cantherhines fronticinctus (Günther 1867)

frontis, brow; cinctus, band, referring to black band across forehead between anterior margins of orbits

#### Cantherhines longicaudus Hutchins & Randall 1982

longus, long; caudus, tail, referring to long caudal fin (0.9-1.1 in head length, congeners 1.1 and above)

#### Cantherhines macrocerus (Hollard 1843)

macro-, long or large; cerus, horn, referring to very large ("très grande") dorsal spine (per Hollard 1854) [sometimes dated 1853 and 1854 but first appearance was in 1843]

# Cantherhines nukuhiva Randall 2011

named for Nuku Hiva, Taiohae Bay, Marquesas Islands, type locality

#### Cantherhines pardalis (Rüppell 1837)

like a leopard, referring to numerous close-set spots on body, usually orange-brown in life (some individuals are spotless)

## Cantherhines pullus (Ranzani 1842)

dark or dusky brown, referring to color of head and body in alcohol

# Cantherhines rapanui (de Buen 1963)

named for Rapa Nui (Easter Island), where it is endemic

# Cantherhines sandwichiensis (Quoy & Gaimard 1824)

*-ensis*, suffix denoting place: Sandwich Islands, former name of Hawaiian Islands, type locality (also occurs at Johnston Atoll, Cook Islands, Rapa and the Pitcairn Islands)

#### Cantherhines verecundus Jordan 1925

modest (per Jordan), allusion not explained, probably referring to its less-showy coloration compared to *C. sandwichiensis*; according to Randall (2011), name means "modest or shy, which is appropriate because this fish is difficult to approach underwater" (indeed, common name is Shy Filefish), but we doubt that Jordan observed the fish underwater since he acquired most of his specimens at a fish market [author is not David Starr Jordan but his son, Eric Knight]

## Cantheschenia Hutchins 1977

combination of first three syllables of Cantherhines and last three of Meuschenia, referring to its "apparent relationships"

# with both genera

#### Cantheschenia grandisquamis Hutchins 1977

grandis, large; squamis, scale, referring to "relatively large prominently outlined scales" on middle of body

#### Cantheschenia longipinnis (Fraser-Brunner 1941)

longus, long; pinnis, fin, referring to "very long" bases of dorsal and anal fins

#### Chaetodermis Swainson 1839

*chaeto-*, bristle; *dermis*, skin, referring to "sharp prickles" (compressed, three-rooted spines) forming irregular longitudinal series on body

## Chaetodermis penicilligerus (Cuvier 1816)

*penicillus*, painter's brush (i.e., ending in a tuft of fine hairs); *gero*, to carry, referring to fringed fleshy appendages on body

#### Colurodontis Hutchins 1977

colurus, truncate; odontis, tooth, referring to truncate cutting edges on all external teeth

#### Colurodontis paxmani Hutchins 1977

in honor of diver Barry Paxman, who was "instrumental" in obtaining many monacanthid specimens for the Western Australian Museum

#### Enigmacanthus Hutchins 2002

*enigma*, puzzling; *acanthus*, thorn or spine (but in this case the stem of several monocanthid generic names), referring to unresolved relationships between this genus and other monocanthid taxa

#### Enigmacanthus filamentosus Hutchins 2002

referring to filamentous second ray in male's soft dorsal fin

#### Eubalichthys Whitley 1930

etymology not explained, perhaps *eu*-, very and *balla*, a spherical body, referring to roughly circular shape of female and juvenile *E. mosaicus* (oval in males); *ichthys*, fish

#### Eubalichthys bucephalus (Whitley 1931)

bu-, huge; cephalus, head, allusion not explained, head described as 3.5 times in body to root of caudal fin

## Eubalichthys caeruleoguttatus Hutchins 1977

caeruleo-, blue; guttatus, spotted, referring to blue spots on head and body of females

#### Eubalichthys cyanoura Hutchins 1987

kyanos, blue; oura, tail, referring to blue caudal fin of males

# Eubalichthys gunnii (Günther 1870)

in honor of Ronald Campbell Gunn (1808-1881), South African-born Australian botanist and politician, who presented type to the British Museum

#### Eubalichthys mosaicus (Ramsay & Ogilby 1886)

mosaic, an inlay of various colors and geometric patterns, presumably referring to yellow to yellowish-brown oval blotches on sides of adults, some of which join together to form longitudinal lines and brownish oval blotches, or yellow with blue longitudinal stripes along sides

# Eubalichthys quadrispinis Hutchins 1977

quadri-, four; spinis, spined, referring to two pairs of spines on each side of caudal peduncle

## Lalmohania Hutchins 1994

-ia, belonging to: R. S. Lai Mohan (b. 1937), Central Marine Fisheries Institute (India), who helped collect type series and provided "invaluable" assistance to Hutchins and other foreign participants during the FAO/DANIDA consultation in Cochin, India, in 1980

# Lalmohania velutina Hutchins 1994

velvety, referring to its "velvet-like" skin

## Meuschenia Whitley 1929

-ia, belonging to: German zoologist and diplomat Friedrich Christian Meuschen (1719-1811), who converted several polynomial fish names published by Gronow (Gronovius) into binominals in 1781, a fact overlooked by many taxonomists (Whitley published a paper on Meuschen's names later in 1929)

# Meuschenia australis (Donovan 1824)

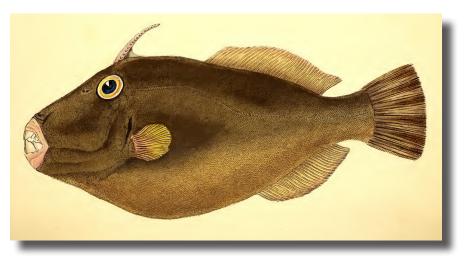
southern, referring to its occurrence off southeastern Australia (Victoria, Tasmania and South Australia)

#### Meuschenia flavolineata Hutchins 1977

flavus, yellow; lineata, lined, referring to yellow band on sides of adults

# Meuschenia freycineti (Quoy & Gaimard 1824)

in honor of French navigator Louis de Freycinet (1779-1841), who collected type



Meuschenia australis. From: Donovan, E. 1824. The naturalist's repository; or monthly miscellany of exotic natural history. Vol. III. London: Simkin and R. Marshall. Unnumbered, plates LXXIII-CVIII.

# Meuschenia galii (Waite 1905)

in honor of Charles Frederick Gale (1860-1928), Chief Inspector of Fisheries of Western Australia (named at the request of Bernard H. Woodward, Curator of the Western Australian Museum)

#### Meuschenia hippocrepis (Quoy & Gaimard 1824)

hippos, horse; crepis, boot or sandal, referring to distinct horseshoe-shaped marking on middle of body

#### Meuschenia scabra (Forster 1801)

rough, referring to "dark-gray rough, prickly tubercles" (translation) on body, presumably referring to tiny spinules on scales, giving it a velvety appearance [often incorrectly spelled *scaber* in the feminine genus *Meuschenia*]

## Meuschenia trachylepis (Günther 1870)

trachys, rough; lepis, scale, referring to scales "not distinct, replaced by short vertical prominences, each of which bears from three to five spinelets"

#### Meuschenia venusta Hutchins 1977

beautiful, referring to its "vivid" coloration (earning it the vivid common name "Stars-and-Stripes Leatherjacket")

# Meuschenia xanthopterus (Xu & Zhan 1988)

xanthos, yellow; pterus, fin, referring to yellowish fins

# Monacanthus Oken 1817

mono-, one; acanthus, thorn or spine, referring to first dorsal fin represented by a single strong spine (behind which is sometimes a rudiment), unlike 2-3 spines on Balistes (Balistidae), original genus of B. chinensis

#### Monacanthus chinensis (Osbeck 1765)

-ensis, suffix denoting place: South China Sea southwest of Macao, China, type locality (occurs in Indo-West Pacific from Andaman Sea east to Philippines and New Guinea, north to southern Japan, south to Australia)

## Monacanthus ciliatus (Mitchill 1818)

ciliate (fringed with lashes), presumably referring to large "ciliated" skin flap ("fringe") between pelvis and anus

#### Monacanthus tuckeri Bean 1906

in honor of the "venerable" George Tucker (1835-1908), Archdeacon of Bermuda (type locality), for his "devotion to biological science in the colony"

# Nelusetta Whitley 1939

-etta, a diminutive, proposed as a replacement name for Nelus Whitley 1930, preoccupied by Nelus Navás 1929 in insects; in both cases, etymology of Nelus is not explained nor evident

## Nelusetta ayraud (Quoy & Gaimard 1824)

in honor of M. (Monsieur) Ayraud, probably Jean Jacques Victor Ayraud (1789-1821): "The name given to this fish recalls one of the many victims of yellow fever among naval medics. It was in the last epidemic that M. Ayraud died in Martinique, after seeing one of his comrades, an ensign, succumb to the same disease." (translation) [presumably a noun in apposition, without the genitive "i"]

## Oxymonacanthus Bleeker 1865

oxy, sharp, referring to produced snout of O. longirostris, previously placed in Monacanthus

## Oxymonacanthus halli Marshall 1952

in honor of Maj. Harold Wesley Hall (1888-1964), owner of the motor yacht *Manihine*, from which type was collected

#### Oxymonacanthus longirostris (Bloch & Schneider 1801)

longus, long; rostris, snout, referring to its produced snout

#### Paraluteres Bleeker 1865

para-, near, close to Aluteres (=Aluterus, original genus of P. prionurus) but differing in having bristles and spines on sides of tail

#### Paraluteres arqat Clark & Gohar 1953

Arabic for spotted, referring to numerous light spots, smaller than eye, on middle of body, caudal peduncle and tail, and a dark spot just under middle of soft dorsal fin

## Paraluteres prionurus (Bleeker 1851)

prion, saw; oura, tail, referring to bristles and spines on sides of tail

#### Paramonacanthus Bleeker 1865

para-, near, similar to Monacanthus (original genus of P. curtorhynchos) but different in shape of head, shorter snout, smoother scales, and no caudal spines or bristles

#### Paramonacanthus arabicus Hutchins 1997

Arabian, referring to Arabian (Persian) Gulf, where it is endemic

## Paramonacanthus choirocephalus (Bleeker 1851)

choiros, pig; cephalus, head, allusion not explained, perhaps referring to shorter (and therefore more pig-like) snout compared to presumed congeners in Monacanthus

## Paramonacanthus curtorhynchos (Bleeker 1855)

curtus, short; rhynchus, snout, allusion not explained, perhaps referring to shorter snout compared to presumed congeners in Monacanthus

# Paramonacanthus frenatus (Peters 1855)

bridled, referring to 2-3 thin dark lines from eye to throat on males

# Paramonacanthus japonicus (Tilesius 1809)

Japan, described from Japanese waters (no types known) and now believed to be restricted to southern Japan

# Paramonacanthus lowei Hutchins 1997

in honor of Graham Lowe (Queensland, Australia), who collected type and provided additional monacanthid material and information for Hutchins' study

#### Paramonacanthus matsuurai Hutchins 1997

in honor of Keiichi Matsuura, National Museum of Nature and Science of Tokyo, who helped Hutchins on many occasions with information and specimens of monacanthids

# Paramonacanthus nematophorus (Günther 1870)

nemato-, thread; phorus, to bear, referring to "scattered long, fringed filaments" on velvety skin

#### Paramonacanthus oblongus (Temminck & Schlegel 1850)

oblong, referring to more elongate shape compared to *Stephanolepis cirrhifer*, its presumed congener at the time (described in same publication)

## Paramonacanthus otisensis Whitley 1931

-ensis, suffix denoting place: Latin and Greek for bustard (a bird, Otis tarda), referring to Bustard Head Lighthouse and/or Bustard Bay, Queensland, Australia, where several museum specimens (including possibly holotype) were trawled in 1910 (D. Hoese, pers. comm.)

#### Paramonacanthus pusillus (Rüppell 1829)

dwarfish or very small, referring to type specimen just 2.5 cm SL (it reaches 14.6 cm SL); "Should this species never grow larger," Rüppell commented, "it might appropriately be called *Monacanthus pusillus*" (translation)

# Paramonacanthus sulcatus (Hollard 1854)

furrowed or grooved, referring to spinous scales arranged in a regular series, creating furrows in between

# Paramonacanthus tricuspis (Hollard 1854)

referring to predominantly tricuspid spinules on scales

#### Pervagor Whitley 1930

nomad or wanderer, referring to *P. alternans*, described from New South Wales, Australia, and never again collected there; Whitley posits that specimen was "perhaps a straggler, brought from warmer waters by the southward-flowing Notonectian current"

#### Pervagor alternans (Ogilby 1899)

alternate, referring to "remarkable alternation" of teeth on sides of dorsal spine, "directed outwards and downwards, those of one side alternating with the other"

#### Pervagor aspricaudus (Hollard 1854)

asper, rough; caudus, tail, referring to moderately long spines with recurved tips on caudal peduncle (actually, on posterior half of body) of males

#### Pervagor janthinosoma (Bleeker 1854)

ianthus (with Latin "i" replaced by Roman "j"), purple or violet; soma, body, described as having violet body and fins (based on a poorly preserved specimen, now lost; body color in life is variable but some specimens are known to be purplish-brown)

#### Pervagor marginalis Hutchins 1986

edged or bordered, referring to prominent dark margin of caudal fin

#### Pervagor melanocephalus (Bleeker 1853)

melano-, black; cephalus, head, referring to black head (and anterior portion of body)

# Pervagor nigrolineatus (Herre 1927)

*nigro*-, black; *lineatus*, lined, referring to up to 10 dark-brown lines on sides (often replaced by longitudinal series of dots, dashes, or elongate blotches)

## Pervagor randalli Hutchins 1986

in honor of ichthyologist John E. Randall (1924-2020), Bishop Museum (Honolulu), who collected many *Pervagor* specimens used in Hutchins' study, including *P. marginalis* and type of this one

# Pervagor spilosoma (Lay & Bennett 1839)

spilos, mark or spot; soma, body, referring to "numerous series of dark-brown rounded spots" on body, "so closely set as to occupy nearly an equal share of the surface with the ground colour"

#### Pseudalutarius Bleeker 1865

pseudo-, false, i.e., not representing the true form of Alutarius (=Aluterus, original genus of P. nasicornis), with dorsal spine well in advance of eye instead of over middle of eye

# Pseudalutarius nasicornis (Temminck & Schlegel 1850)

nasus, nose; cornis, horn, referring to dorsal spine well in advance of eye (on upper snout) instead of over middle of eye

#### Pseudomonacanthus Bleeker 1865

pseudo-, false, i.e., not representing the true form of Monacanthus (original genus of type species M. macrurus), lacking a movable pelvic spine

# Pseudomonacanthus elongatus Fraser-Brunner 1940

elongate, referring to its more elongate form compared to congeners

#### Pseudomonacanthus macrurus (Bleeker 1856)

macro-, long; oura, tail, distinguished from presumed congeners in Monacanthus by its long caudal fin

#### Pseudomonacanthus peroni (Hollard 1854)

in honor of French voyager and naturalist François Péron (1775-1810), who collected type with Charles-Alexandre Lesueur

# Pseudomonacanthus tweediei Fraser-Brunner 1940

in honor of naturalist-archaeologist Michael W. F. Tweedie (1907-1993), Curator, Raffles Museum (Singapore), in whose publication this species, from Singapore, was described

#### Rudarius Jordan & Fowler 1902

from rudis, rough, referring to "rather rough" body of R. ercodes

## Rudarius ercodes Jordan & Fowler 1902

-oides, having the form of: erkos, net, referring to reticulated (net-like) color pattern

# Rudarius excelsus Hutchins 1977

elevated, referring to its prominently elevated dorsal and ventral profiles

#### Rudarius minutus Tyler 1970

small, being sexually mature at sizes as small as 17.1 mm SL (21.8 mm total length), probably the smallest adult size of any member of the order

#### Scobinichthys Whitley 1931

scobina, rasp, referring to "extremely rough integument"; ichthys, fish

# Scobinichthys granulatus (Shaw 1790)

full of seeds of grains, i.e., granular, referring to body "covered with granules"

#### Stephanolepis Gill 1861

stephanos, crown; lepis, scale, referring to crown-like crest on middle of each scale

#### Stephanolepis aurata (Castelnau 1861)

golden, referring to golden-brown body color [often misspelled auratus when placed in Stephanolepis]

#### Stephanolepis cirrhifer (Temminck & Schlegel 1850)

cirrhis, tendril; fero, to bear, allusion not explained, probably referring to cirri on sides and/or 1-3 soft dorsal fin rays extended as filaments in males, the first ray with a particularly long thread

#### Stephanolepis diaspros Fraser-Brunner 1940

etymology not explained nor evident but here is a guess: *dia*, across and *speirein*, scatter (as in diaspora), referring to its having been described from three specimens scattered throughout Persian Gulf, Muscat (Oman), Dubai (United Arab Emirates), and Jask (Iran); name could also translate as *di*-, two and *aspros*, white, but that does not align with anything in Fraser-Brunner's description and illustration

#### Stephanolepis hispida (Linnaeus 1766)

bristly or rough, referring to its very rough skin (like a rasp or file, hence the common name "filefish") [often misspelled *hispidus* when placed in *Stephanolepis*]

#### Stephanolepis insignis Fraser-Brunner 1940

marked, allusion not explained, perhaps referring to 3-4 radiating lines downward and forward from eye across cheek and/or "distinct pattern on side composed of dark oblong or lozenge-shaped longitudinal patches on a paler ground" [species inquirenda, provisionally included here]

#### Stephanolepis setifer (Bennett 1831)

seti, setae (hair-like structures); fero, to bear, presumably referring to cirri on sides

#### Thamnaconus Smith 1949

thamnos, shrub or brush; conus, cone, allusion not explained nor evident

## Thamnaconus analis (Waite 1904)

anal, referring to a "well-defined" area of black (blue in life) surrounding the vent

#### Thamnaconus arenaceus (Barnard 1927)

sandy, allusion not explained, probably referring to "granulate or spinulose" scales, the "surface therefore rough"

## Thamnaconus degeni (Regan 1903)

in honor of Swiss ornithologist Edward Degen (1852-1922), who sent type specimen to Regan along with a drawing showing its colors in life

## Thamnaconus erythraeensis Bauchot & Maugé 1978

-ensis, suffix denoting place: erythraea, red, referring to Red Sea, where it is endemic

#### Thamnaconus faiardoi Smith 1953

in honor of Mussolini P. Fajardo of Lourenço Marques, Mozambique, for his "valuable contributions to science"; Fajardo "collected a great number of fishes of all kinds, many of great rarity and value," including type of this one, on "many trips along the coast of his country and in uncomfortable voyages in small vessels in the storm-lashed seas" of Mozambique

#### Thamnaconus fiiiensis Hutchins & Matsuura 1984

-ensis, suffix denoting place: Fiji, only known area of occurrence

# Thamnaconus garretti (Fowler 1928)

in honor of Andrew Garrett (1823-1887), American explorer, naturalist and illustrator specialising in malacology and ichthyology, who collected type in 1860

#### Thamnaconus hypargyreus (Cope 1871)

bypo-, under; argyreus, silvery, referring to silvery white color of lower body in spirits (upper body a "light rufous")

## Thamnaconus melanoproctes (Boulenger 1889)

melano-, black; proktos, anus, referring to blackish spot at vent

# Thamnaconus modestoides (Barnard 1927)

-oides, having the form of: "most nearly allied" to T. modestus but with a larger eye and deeper body

#### Thamnaconus modestus (Günther 1877)

modest or unassuming, allusion not explained, perhaps referring to uniform brownish-gray color in alcohol (a less modest greenish-yellow in life)

#### Thamnaconus multilineatus (Tanaka 1918)

multi-, many; lineatus, lined, referring to many narrow longitudinal bands on middle and lower parts of body

# Thamnaconus paschalis (Regan 1913)

relating to Easter, referring to Easter Island, type locality

## Thamnaconus septentrionalis (Günther 1874)

northern, allusion not explained, perhaps referring to its occurrence in the South China Sea, at the northern range of the Indo-Pacific (and possibly more northern than most other monocanthids known at the time)

#### Thamnaconus striatus (Kotthaus 1979)

striped or striated, referring to numerous striations on head and body

## Thamnaconus tessellatus (Günther 1880)

tessellated, i.e., inlaid with small square stones, referring to squarish dark-brown spots on head and body, regularly arranged in transverse and longitudinal series

#### Suborder OSTRACIOIDEI

## Family ARACANIDAE Deepwater Boxfishes

6 genera · 13 species

#### Anoplocapros Kaup 1855

anoplos, unarmed, referring to absence of spines on body of *A. lenticularis*; capros, wild boar, possibly referring to "seapig," a vernacular applied in the early 19th century to several aracanid and ostraciid species, possibly alluding to body shape when viewed from behind (see *Capropygia*, below)

## Anoplocapros amygdaloides Fraser-Brunner 1941

-oides, having the form of: Amygdalus, subgenus of the peach tree Prunus (Amygdalus) persica, referring to how deep, ovate carapace and prominent, elevated dorsal ridges are "suggestive of a large peach-stone"

#### Anoplocapros inermis (Fraser-Brunner 1935)

unarmed, allusion not explained, probably referring to absence of spines on body

#### Anoplocapros lenticularis (Richardson 1841)

shaped like a lentil, presumably referring to "wart-like umbo" (per Richardson 1844) at middle of each body plate

#### Aracana Gray 1833

etymology not explained and confused by the fact that Gray used three spellings, *Acarana* in 1833, *Acerana* in 1835 and *Aracana* in 1838 (name dates to 1833 but 1838 spelling is in prevailing usage); based on the fact that Gray called boxfishes "parrot fishes" in 1835, name may relate to the Aracanga, *Macrocercus aracanga*, now known as *Ara macao*, the Scarlet Macaw

#### Aracana aurita (Shaw 1798)

eared, referring to horn-like spine above each eye, together resembling a pair of ears

## Aracana ornata (Gray 1838)

beautiful or adorned, described as a "distinct and beautiful" species with hexangular spots and whitish reticulations on body, white streaks on face and belly, and a dark submarginal band and dark streaks on caudal fin

# Caprichthys McCulloch & Waite 1915

capros, related to both Capropygia and Anoplocapros but distinguished by the posteriorly naked caudal peduncle

## Caprichthys gymnura McCulloch & Waite 1915

gymnos, bare; oura, tail, referring to posterior caudal peduncle "naked" instead of encircled with a bony band

#### Capropygia Kaup 1855

capros, wild boar; pygia, rump or buttocks, "Viewed from behind, it resembles the rear part of a well-fed pig" (translation)

# Capropygia unistriata (Kaup 1855)

uni-, one; striata, striped, referring to black stripe from eye to tail

# Kentrocapros Kaup 1855

kentron, thorn or spine, referring to rough, thorny ridge along middle of body of Ostracion hexagonus (=K. aculeatus); capros, wild boar, possibly referring to "sea-pig," a vernacular applied in the early 19th century to several aracanid and ostraciid species, possibly alluding to body shape when viewed from behind (see Capropygia, above)

# Kentrocapros aculeatus (Houttuyn 1782)

spined or sharp-pointed, referring to rough, thorny ridge along middle of bod

# Kentrocapros flavimaculatus Matsuura 2023

flavus, yellow; maculatus, spotted, referring to many yellow spots on body

## Kentrocapros flavofasciatus (Kamohara 1938)

flavus, yellow; fasciatus, banded, referring to two broad, longitudinal yellow bands, the upper running from forehead to upper base of caudal fin, the lower from angle of mouth, passing below eye, and uniting with the upper band at posterior dorsal-fin base

# Kentrocapros rosapinto (Smith 1949)

in honor of Portuguese ornithologist Antonio Augusto da Rosa Pinto (1904-1986), Director, Lourenço Marques

Museum in Mozambique (type locality) [presumably a noun in apposition, without the genitive "i"]

# Kentrocapros spilonotus (Gilbert 1905)

spilos, mark or spot; notus, back (but apparently used here as an adjective, backed), referring to brownish-green spots on back (and upper sides of head, body and tail)

#### Polyplacapros Fujii & Uyeno 1979

*poly*, many and *plac*, plate, referring to body almost completely covered by plates; *capros*, wild boar, referring to boar-like appearance of head

# Polyplacapros tyleri Fujii & Uyeno 1979

in honor of plectognath taxonomist James C. Tyler (b. 1935), who has "contributed greatly to our knowledge of tetraodontiform fishes"

# Family OSTRACIIDAE Boxfishes (Cowfishes and Trunkfishes)

6 genera · 24 species

#### Acanthostracion Bleeker 1865

acanthus, thorn or spine, proposed as a subgenus of Ostracion with forwardly directed orbital spines and pair of spines at rear corners of carapace

#### Acanthostracion guineense (Bleeker 1865)

-ensis, suffix denoting place: off the coast of Guinea, type locality (occurs in eastern Atlantic from Guinea to Gabon) [originally and frequently misspelled as guineensis]

#### Acanthostracion notacanthus (Bleeker 1863)

notos, back; acanthus, thorn or spine, referring to prominent dorsal projection on third carapace scute in front of dorsal fin

#### Acanthostracion polygonium Poey 1876

poly, many; gonius, angled, referring to hexagonal (which Poey called polygonal) color pattern over most of body [originally and frequently misspelled as polygonius]

## Acanthostracion quadricornis (Linnaeus 1758)

quadri-, four; cornis, horn, referring to one pair of orbital spines (similar in appearance to cow horns, hence the common name "cowfish") and a second pair at rear corners of carapace

# Lactophrys Swainson 1839

*lactoria*, a milkcow; *ophrys*, eyebrow, referring to conspicuous spines before each eye, like the horns on a dairy cow, hence the common name "cowfish"

## Lactophrys bicaudalis (Linnaeus 1758)

*bi*-, two; *caudalis*, tailed, i.e., with two spines below the tail ("spinis subcaudalibus 2"), allusion unclear since the fish does not have two spines below the tail (but does have a spine on both sides of the anal fin as do many other cowfishes)

## Lactophrys trigonus (Linnaeus 1758)

tri-, three; gonus, angle, referring to triangular body shape when viewed from front

## Lactophrys triqueter (Linnaeus 1758)

tri-, three; quetra, angled or cornered, referring to triangular body shape when viewed from front

# Lactoria Jordan & Fowler 1902

a milkcow, referring to conspicuous spines before each eye, like the horns on a dairy cow, hence the common name "cowfish"

# Lactoria cornuta (Linnaeus 1758)

horned, referring to conspicuous spines before each eye

#### Lactoria diaphana (Bloch & Schneider 1801)

transparent or translucent, presumably described from a semi-transparent juvenile

#### Lactoria fornasini (Bianconi 1846)

in honor of Cavaliere Carlo Antonio Fornasini (1805-1865), who collected plant and animal specimens in Mozambique, including type of this species, and presented them to the Museo di Zoologia dell'Università di Bologna (Italy) [treated as a noun in apposition, without the genitive "i," although Bianconi later spelled it *fornasinii* in 1855]

## Ostracion Linnaeus 1758

a little box, referring to body shape of O. cubicus

# Ostracion cubicum Linnaeus 1758

cubic, referring to its box-like shape (hence the name "boxfish")

#### Ostracion cyanurus Rüppell 1828

cyano-, blue; oura, tail, referring to blue caudal fin

#### Ostracion immaculatum Temminck & Schlegel 1850

unspotted, referring to "total lack of spots, either on the body or on the fins" (translation), referring to uniform reddish color in alcohol; in life, this species in indeed spotted

## Ostracion meleagris Shaw 1796

guinea fowl, referring to "innumerable" white spots on brown or blackish body, resembling color pattern of a guinea fowl

# Ostracion nasus Bloch 1785

nose, referring to knob-like snout

#### Ostracion rhinorhynchos Bleeker 1851

rhinos, beak or bill; rhynchos, snout, referring to conical snout protuberance of adults

#### Ostracion solorense Bleeker 1853

-ensis, suffix denoting place: Solor Island, Indonesia, type locality (occurs in eastern Indian Ocean and western Pacific from Christmas Island and Indonesia east to Palau, Fiji and Tonga, north to Philippines, south to northern Australia and New Caledonia)

## Ostracion trachys Randall 1975

rough, referring to rough texture of carapace, especially areas where most plates have a central spinule

#### Ostracion whitleyi Fowler 1931

in honor of Australian ichthyologist-malacologist Gilbert Percy Whitley (1903-1975), who called Fowler's attention to the fact that this species' original name, *O. ornatus* Hollard 1856, is preoccupied by *O. (Aracana) ornata* Gray 1838

#### Paracanthostracion Whitley 1933

para-, near, i.e., close to Acanthostracion but distinguished by the shape of its carapace and the "disposition" of its spines

# Paracanthostracion lindsayi (Phillipps 1932)

in honor of Charles John Lindsay (1902-1966), taxidermist, Curator of Technology, and Phillipps' colleague at the Dominion Museum (Wellington, New Zealand); he also photographed holotype

## Tetrosomus Swainson 1839

tetro-, four; soma, body, referring to "quadrangular" body shape

# Tetrosomus concatenatus (Bloch 1785)

con-, with; catenatus, chained, i.e., linked together, referring to chain-like markings on body

#### Tetrosomus gibbosus (Linnaeus 1758)

humpbacked, referring to strongly elevated dorsal ridge



Ostracion rhinorhynchos. From: Bleeker, P. 1851. Bijdrage tot de kennis der Balistini en Ostraciones van den Indischen Archipel. Verhandelingen van het Bataviaasch Genootschap van Kunsten en Wetenschappenv. 24 (art. 11): 1-36 + 37-38, Pls. 1-7.

# Tetrosomus reipublicae (Whitley 1930)

of the commonwealth, i.e., Commonwealth of Australia, name coined by Ogilby (1913) for Australian populations of *T. concatenates*; since Ogilby did not provide a description, name dates to Whitley

# Tetrosomus stellifer (Bloch & Schneider 1801)

star-bearer, referring to three oblong shapes on body, divided into hexagons, filled with black star-shaped markings [a doubtful species, known only from four skins]