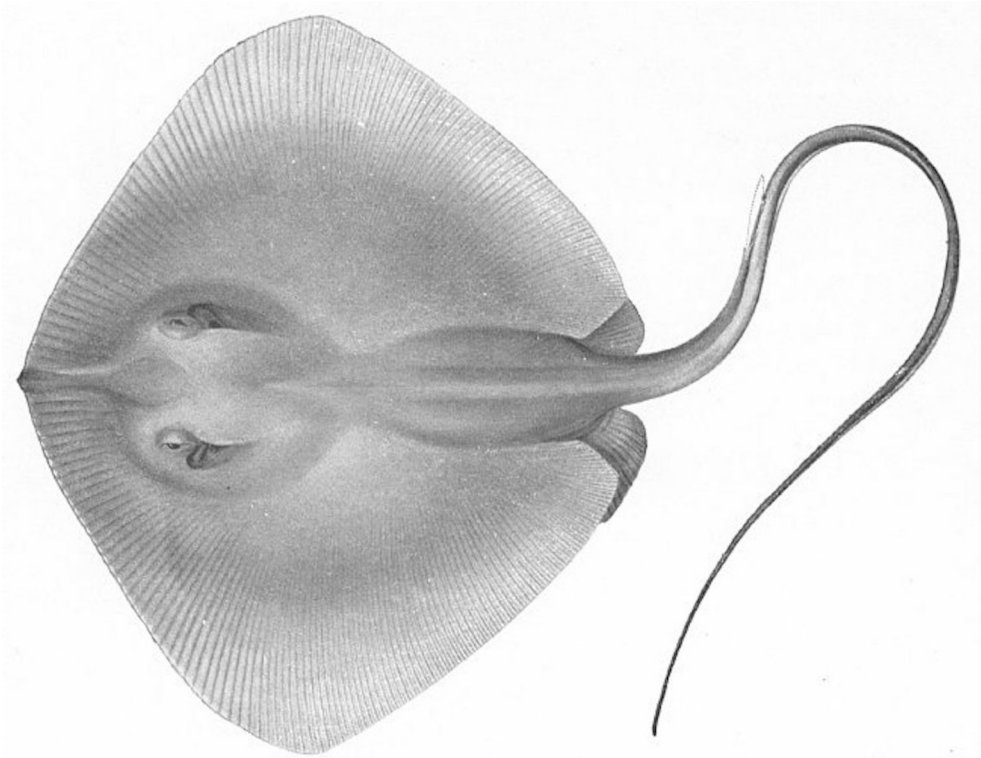
Order MYLIOBATIFORMES

Stingrays

Family **DASYATIDAE**

Jordan & Gilbert 1879



Possibly first-published image of *Bathytoshia lata* (as *Dasyatis sciera*). Illustration by W. S. Atkinson. From: Jenkins, O. P. 1903. Report on collections of fishes made in the Hawaiian Islands, with descriptions of new species. Bulletin of the U. S. Fish Commission 22 (1902): 417–511, Pls. 1–4.

Stingrays

Subfamily DASYATINAE

Jordan & Gilbert 1879

Bathytoshia

Whitley 1933

bathýs (βαθύς), deep, presumably referring to ocean habitat of *Dasyatis thetidis* (=*B. lata*) compared with riverine habitat of *Hemitrygon fluviorum*, which Whitley placed in a genus he called *Toshia*, described in the same paper; both *Toshia* and *Bathytoshia* are named after the late James R. Tosh (1872–1917)[1], Scottish marine biologist and inland waterway engineer, Marine Department of Queensland, who mentioned and illustrated stingrays in a report on the fishes of Moreton Bay, Australia

***Bathytoshia brevicaudata* (Hutton 1875)** *brevis* (L.), short; *caudata* (L.), tailed, referring to short tail, usually shorter than disc length; Hutton added, "The end of the tail of this specimen is broken off; but it is evident that it could only have extended a few inches further"

***Bathytoshia centroura* (Mitchill 1815)** *centro-*, from *kéntron* (κέντρον), prickle or any sharp point; *ourá* (οὐρά), tail, referring to "prickly shields or scales" on tail

***Bathytoshia lata* (Garman 1880)** feminine of *latus* (L.), broad or wide, referring to its wider disc compared with *Hypanus longus*, its presumed congener at the time

[1] Biographical footnote: Tosh died of heat stroke while working for the British Red Cross in Iraq.

Dasyatis

Rafinesque 1810

dasýs (δασύς), hairy or shaggy, referring to prickly skin of *D. ujo* (=*pastinaca*); *-atis*, from *batís* (βατίς), a flat fish, usually applied to a skate or ray

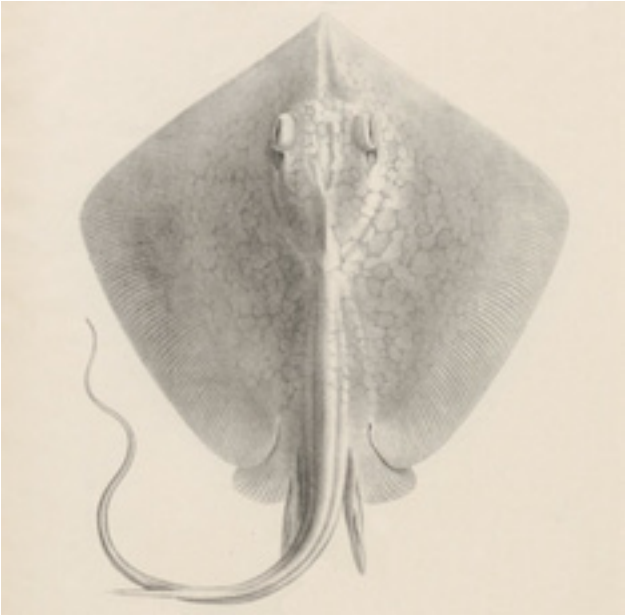
***Dasyatis chrysonota* (Smith 1828)** gold-backed, from *chrysós* (χρυσός), gold, and *nṓtos* (νῶτος), back, referring to its golden-green dorsal coloration

***Dasyatis hypostigma* Santos & Carvalho 2004** *hypó* (ὑπό), less than, under or beneath; *stigma*, from *stígma* (στίγμα) or *stigmḗ* (στιγμή), mark or spot, referring to distinctive W-shaped furrow on ventral surface behind fifth pair of gill slits

***Dasyatis marmorata* (Steindachner 1892)** Latin for marbled, referring to dark reticular pattern of dorsal surface

***Dasyatis pastinaca* (Linnaeus 1758)** Latin for parsnip, a name dating to Pliny, presumably referring (per Salviani, 1558, *Aquatilium Animalium Historiae*) to how its tail "closely resembles the root of a parsnip in color, roundness and length" (translation)

***Dasyatis tortonesei* Capapé 1975** patronym not identified but clearly in honor of Enrico Tortonése (1911–1987), Museum of Natural History (Genoa, Italy), whose 1956 work on Mediterranean sharks and rays is frequently cited by Capapé



Dasyatis marmorata. From: Steindachner, F. 1892. Über einige neue und seltene Fischarten aus der ichthyologischen Sammlung des K. K. Naturhistorischen Hofmuseums. Denkschriften der Kaiserlichen Akademie der Wissenschaften in Wien, Mathematisch-Naturwissenschaftliche Classe. 59 (1. Abth.): 357–384, Pls. 1–6.

Hemitrygon

Müller & Henle 1838

hemi-, from *hḗmisys* (ἥμισυς), half, proposed as a subgenus of *Trygon* (=*Dasyatis*)

Hemitrygon akajei **(Bürger 1841)** *aka*, Japanese for red, referring to bright orange-red underside; *jei*, Japanese for skate or ray (described from Japan) [authorship often attributed to Müller & Henle, who published Bürger's description]

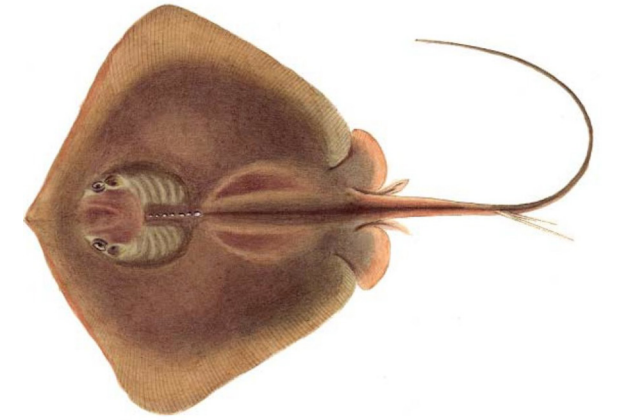
Hemitrygon ariakensis **Furumitsu & Yamaguchi 2025** *-ensis*, suffix denoting place: Ariake Bay, Nagasaki, Japan, type locality

Hemitrygon bennettii **(Müller & Henle 1841)** patronym not identified, presumably in honor of British zoologist Edward Turner Bennett (1797–1836), whose anonymous contributions to batoid literature in an 1830 memoir on the life of Thomas Stamford Raffles are cited several times by Müller and Henle

Hemitrygon fluviorum **(Ogilby 1908)** genitive plural of the Latin *fluvius*, stream or smaller river, referring to its ascending coastal rivers and estuaries "well above the tideway"

Hemitrygon izuensis **(Nishida & Nakaya 1988)** *-ensis*, Latin suffix denoting place: Izu Peninsula, Japan, type locality

Hemitrygon laevigata **(Chu 1960)** Latin for smooth, referring to its entirely smooth dorsal surface, even in adults



Hemitrygon akajei. From: Müller, J. and F. G. J. Henle. 1838–41. Systematische Beschreibung der Plagiostomen. Veit und Comp.,Berlin. i–xxii + 1-200, 60 pls. [Pp. 1–28 published in 1838, reset pp. 27–28, 29–102 in 1839, i-xxii + 103–200 in 1841.]

Hemitrygon laosensis **(Roberts & Karnasuta 1987)** *-ensis*, Latin suffix denoting place: Laos, referring to its distribution in the Mekong River at the Laos-Thailand border

Hemitrygon longicauda **(Last & White 2013)** *longus* (L.), long; *cauda* (L.), tail, referring to its very long tail, 2.3–2.9 times width of disc

Hemitrygon navarrae **(Steindachner 1892)** in honor of B. R. Navarra, possibly Bruno R. Navarra [1850–1911], Chinese-history scholar, who supplied the Imperial Court Museum of Natural History (Vienna) with fish specimens collected in Shanghai [although named after a man, "*ae*" is, per Latin grammar, a nomenclaturally acceptable way to form a genitive from nouns that end in "a"]

Hemitrygon parvonigra **(Last & White 2008)** *parvo*, from *parvus* (L.), little; *nigra* (L.), black, referring to its resemblance to a larger Australian species, the Black Stingray *Dasyatis thetidis* (=*Bathytoshia lata*)

Hemitrygon sinensis **(Steindachner 1892)** *-ensis*, Latin suffix denoting place: Sinica (China), described from Shanghai, China

Hemitrygon yemenensis **Moore, Last & Taylor 2020** *-ensis*, Latin suffix denoting place: eastern Yemen, on the Arabian Sea coast, type locality

Hypanus

Rafinesque 1818

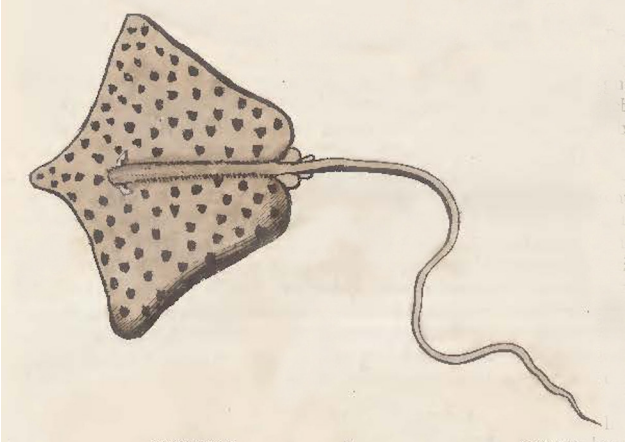
etymology not explained, perhaps *hypér* (ὑπέρ), over or above (i.e., dorsal), and *anus* (L.), rectal opening (i.e., anal), referring to presence of both dorsal[2] and anal fins on *H. say*, which Rafinesque compared with the lack of such fins on a ray he called *Uroxys maclura* (=*Gymnura altavela*, Gymnuridae)

Hypanus americanus **(Hildebrand & Schroeder 1928)** *-anus* (L.), belonging to: probably referring to its distribution off coasts of both North and South America, from Crisfield, Maryland, USA (type locality), to Brazil

Hypanus berthalutzae **Petean, Naylor & Lima 2020** in honor of Bertha Lutz (1894–1976), a "pioneering" Brazilian female zoologist who created the Brazilian Federation for Feminine Progress, leading to female suffrage in Brazil; since this species is restricted to Brazilian waters and most known specimens are females, the name represents female empowerment in Brazil, among those who work in science, and for those who fight for women's rights as well

Hypanus dipterurus **(Jordan & Gilbert 1880)** double-fin tailed, from *dýo* (δύο), two, *pterón* (πτερόν) or *ptéryx* (πτέρυξ), fin, and *ourá* (οὐρά), tail, referring to "conspicuous cutaneous fold below [tail] and a smaller but evident one above"

[2] Actually, *Hypanus say* does not have a dorsal fin, but Rafinesque apparently saw one (assuming he handled an actual specimen, which is doubtful). Another explanation is that Rafinesque was alluding to the dorsal and ventral folds along the tail; there is no internal evidence for this interpretation, but it is plausible.



"Iabebirete," upon which description of *Hypanus guttatus* was based. From: Markgraf von Liebstadt, G. 1648. Historiæ rerum naturalium brasiliæ libri octo. *In*: Historiae naturalis brasiliae, auspicio et beneficio illustriss. F. Hackius, Lugduni Batavorum (Leiden) and L. Elzevir (Elsevier), Amstelodami (Amsterdam). i–xii (unnumbered) + 1–327 + i–ii (unnumbered) + 1–39 + 1–226 + i (unnumbered). [Author's name spelled Georgvs Marcgravus de Liebstad, also seen as Marcgrave or Marcgravus.]

***Hypanus geijskesi* (Boeseman 1948)** in honor of Dutch entomologist Dirk Cornelis Geijskes (1907–1985), Director, Suriname Museum, Paramaribo, who collected holotype and furnished Boeseman with many fishes from Suriname

***Hypanus guttatus* (Bloch & Schneider 1801)** Latin for spotted or speckled, probably referring to black spots on dorsal surface as illustrated in Markgraf von Liebstadt's *Historiae naturalis brasiliae* (1648)

***Hypanus longus* (Garman 1880)** Latin for long, compared to its longer disc compared with *Bathytoshia lata*, its presumed congener at the time

***Hypanus marianae* (Gomes, Rosa & Gadig 2000)** in honor of the third author's daughter, Mariana R. Oliveria

***Hypanus rubioi* Mejía-Falla, Navia, Cardeñosa & Tavera 2025** in honor of ichthyologist Efrain Rubio, Universidad del Valle, "one of the first researchers interested in the fish fauna of the Colombian Pacific" (where this ray occurs); he started the university's ichthyology collection and trained "many generations" of young ichthyologists interested in the Pacific fishes of Colombia

***Hypanus rudis* (Günther 1870)** Latin for rough, referring to "minute, dense asperities" on its tail and dorsal surface

***Hypanus sabinus* (Lesueur 1824)** etymology not explained nor evident, perhaps from *sabinas*, a name given by early Spanish explorers to both bald cypress trees (*Taxodium*) and juniper trees (*Juniperus*), both of which are conspicuous botanical features of the likely coastal or wetland Florida (USA) habitat from which holotype was collected[3]

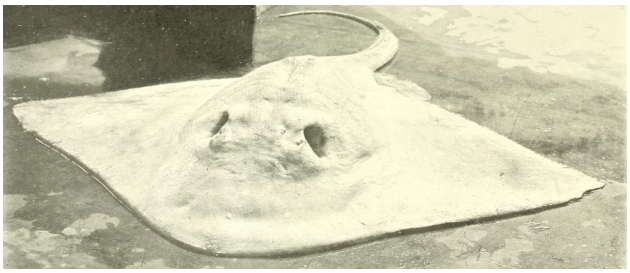
***Hypanus say* (Lesueur 1817)** in honor of American zoologist Thomas Say (1787–1834), Lesueur's friend and colleague at the Academy of Natural Sciences of Philadelphia [presumably a noun in apposition, without the genitive "*i*"]

Megatrygon[4]

Last, Naylor & Manjaji-Matsumoto 2016

mégas (μέγας), large or great, referring to "massive bulk" of the "gigantic" *M. microps*; *trygṓn* (τρυγών), stingray, originating from *ptérýx* (πτέρυξ), wing[5], referring to the wing-like resemblance (and flying-like movement) of their pectoral fins

***Megatrygon microps* (Annandale 1908)** *micro-*, from *mikrós* (μικρός), small; *ṓps* (ὦψ), eye, referring to its "very small" eyes



Megatrygon microps, holotype, female, disc length 137 cm. From: Annandale, N. 1908. A new sting ray of the genus *Trygon* from the Bay of Bengal. Records of the Indian Museum (Calcutta) 2 (4) (art. 38): 393–394, Pl. 27.

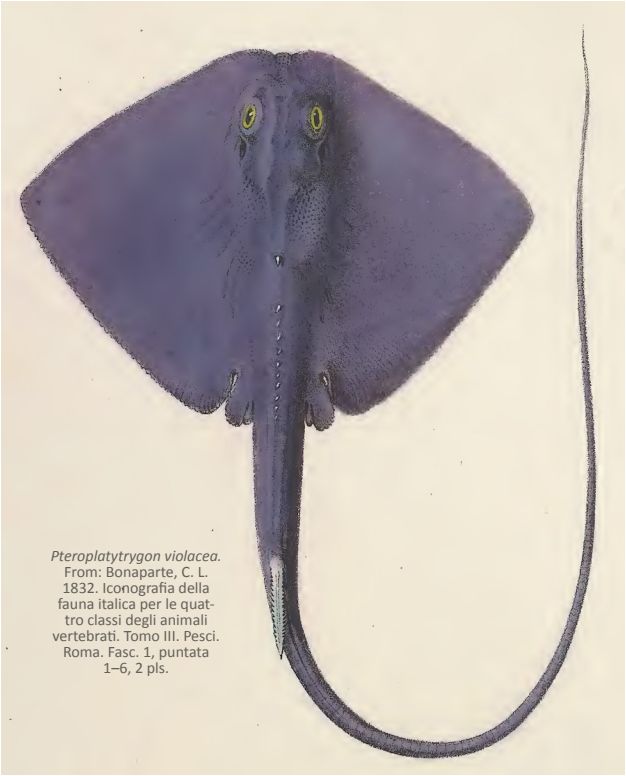
Pteroplatytrygon

Fowler 1910

pterón (πτερόν), fin; *platýs* (πλατύς), wide or broad, referring to its broad pectoral-fin disc; *Trygon*, original genus of *P. violacea*, from *trygṓn* (τρυγών), stingray, originating from *ptérýx* (πτέρυξ), wing[5], referring to the wing-like resemblance (and flying-like movement) of their pectoral fins

***Pteroplatytrygon violacea* (Bonaparte 1832)** Latin for violet-colored, referring to its body color

[3] Three other explanations have been proposed. (1) Boschung and Mayden (2004, *Fishes of Alabama*, Smithsonian Institution Press) suggest an allusion to *Juniperus sabina*, a Eurasian evergreen juniper "used in folk medicine" and "probably a reference to the flattened shape of the [ray's] body" (a comparison I find rather far-fetched). (2) Greek and Latin scholar Holger Funk (pers. comm.) suggests that *sabinus* may be derived from the Latin *sabulum*, meaning coarse sand or gravel, referring to the ray's occurrence in shallow coastal waters over a sandy or silty bottom; unfortunately, Lesueur did not mention habitat in his description. (3) Poucher (2022, *Wildlife of Florida's Springs: An Illustrated Field Guide to Over 150 Species*, Pineapple Press) suggests that Lesueur may have named the ray in honor Sabin Bertholet (1794–1880), a French naturalist and ethnologist who lived in the Canary Islands (but I have not found any evidence that Lesueur and Berthelot had any kind of relationship, personal or professional).



Pteroplatytrygon violacea. From: Bonaparte, C. L. 1832. Iconografia della fauna italica per le quattro classi degli animali vertebrati. Tomo III. Pesci. Roma. Fasc. 1, puntata 1–6, 2 pls.

Taeniurops

Garman 1913

ópsis (ὄψις), appearance, proposed as a subgenus of *Taeniura*

***Taeniurops grabatus* (Geoffroy St. Hilaire 1817)** Latin for bed, translation of its ancient Arabic name *farch* (allusion not explained nor evident) [often incorrectly treated as an adjective, *grabata*]

***Taeniurops meyeni* (Müller & Henle 1841)** in honor of Prussian physician-botanist Franz Julius Ferdinand Meyen (1804–1840), who presumably collected or supplied specimens for Müller & Henle

Telatrygon

Last, Naylor & Manjaji-Matsumoto 2016

tela-, from *telum* (L.), javelin, spear, arrow or dart, referring to long, narrowly pointed snout possessed by all members of the genus; *trygṓn* (τρυγών), stingray, originating from *ptérýx* (πτέρυξ), wing[5], referring to the wing-like resemblance (and flying-like movement) of their pectoral fins

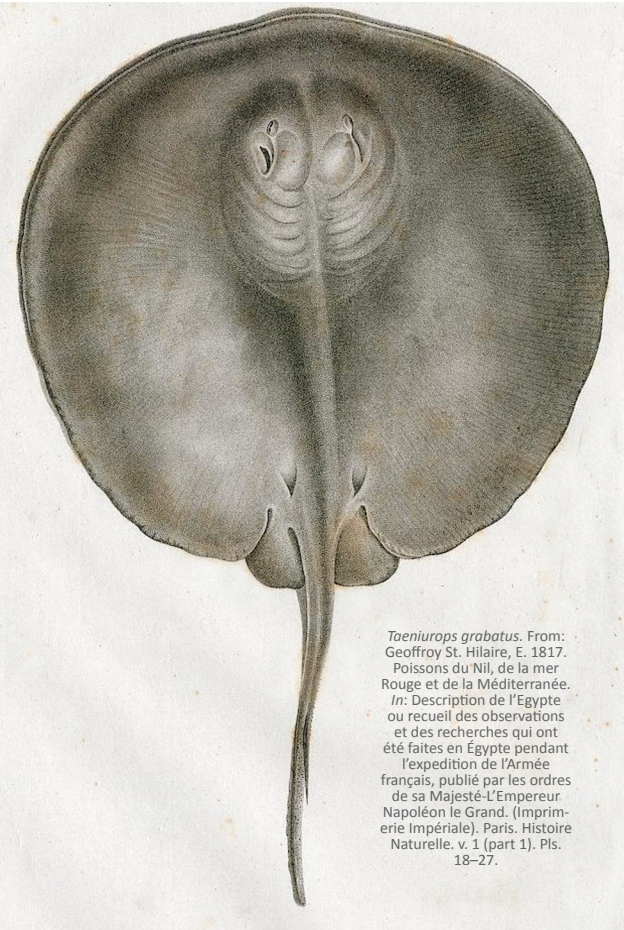
***Telatrygon acutirostra* (Nishida & Nakaya 1988)** *acutus* (L.), sharp or pointed; *rostra*, from *rostrum* (L.), referring to its long snout

***Telatrygon biasa* Last, White & Naylor 2016** Indonesian and Malaysian word meaning "ordinary, common or normal," referring to its frequent occurrence in local fish markets of the western North Pacific

***Telatrygon crozieri* (Blyth 1860)** patronym not identified but almost certainly in honor of British anatomy and physiology professor William Crozier (1816–1862), Blyth's colleague at (and finance chair of) the Asiatic Society of Bengal

[4] Possibly not a true dasyatid based on molecular evidence; appears more closely related to Urotrygonidae and Potamotrygonidae. Morphological work is needed to investigate this possibility. Source: Last, P. R., M. R. de Carvalho, S. Corrigan, G. J. P. Naylor, B. Séret and L. Yang. 2016. The Rays of the World project – an explanation of nomenclatural decisions. *In*: Last, P. R. and G. K., Yearsley (eds.). Rays of the World: Supplementary Information. CSIRO Special Publication. 1–10.

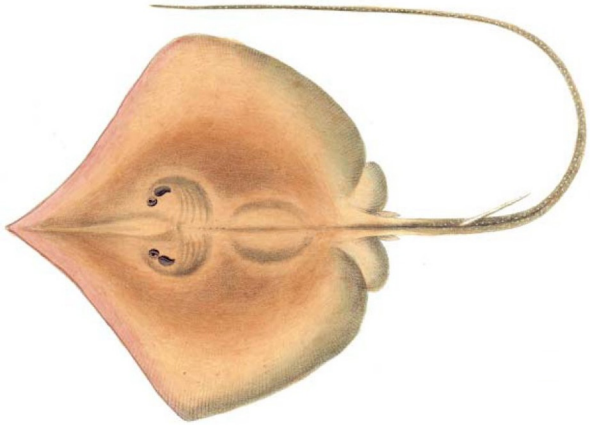
[5] Le Feuvre, C. 2011. Gr. τρυγών '1. turtledove; 2. stingray (fish)': one word or two words? Studia Etymologica Cracoviensia 16 (1): 23–31. Some references say *trygṓn* means turtle dove. Le Feuvre presents evidence that *trygṓn* was originally two distinct words, meaning both stingray and turtle dove, that merged into one through the vicissitudes of phonological change; the semantic link between the two animals is accidental.



Taeniurops grabatus. From: Geoffroy St. Hilaire, E. 1817. Poissons du Nil, de la mer Rouge et de la Méditerranée. *In*: Description de l'Egypte ou recueil des observations et des recherches qui ont été faites en Égypte pendant l'expedition de l'Armée français, publié par les ordres de sa Majesté-L'Empereur Napoléon le Grand. (Imprimerie Impériale). Paris. Histoire Naturelle. v. 1 (part 1). Pls. 18–27.

***Telatrygon microphthalma* (Chen 1948)** small-eyed, from *mikrós* (μικρός), small, and *ophthalmós* (ὀφθαλμός), eye, referring to smaller eye compared with *Brevitrygon imbricata* and *B. walga*, its presumed congeners at the time

***Telatrygon zugei* (Bürger 1841)** *zugu-ei*, Japanese vernacular for this stingray [authorship often attributed to Müller & Henle, who published Bürger's description]



Telatrygon zugei. From: Müller, J. and F. G. J. Henle. 1838–41. Systematische Beschreibung der Plagiostomen. Veit und Comp., Berlin. i–xxii + 1-200, 60 pls. [Pp. 1–28 published in 1838, reset pp. 27–28, 29–102 in 1839, i-xxii + 103–200 in 1841.]

Shortsnout Stingrays

Subfamily NEOTRYGONINAE

Last, Naylor & Manjaji-Matsumoto 2016

Neotrygon

Castelnau 1873

néos (νέος), new, i.e., a new genus of *Trygon* (=*Dasyatis*)

***Neotrygon annotata* (Last 1987)** *án-* (ἄν), privative, i.e., not (Last said prefix is Latin); *notata* (L.), marked, referring to lack of distinct ocelli, spots or blotches

***Neotrygon australiae* Last, White & Serét 2016** of Australia, referring to its Australasian distribution (Northern Australia, Papua New Guinea and Lombok, Indonesia)

***Neotrygon bobwardi* Borsa, Arlyza, Hoareau & Shen 2017** in honor of Robert D. ("Bob") Ward, "one of the leaders of the fish barcoding initiative," for his contribution to the systematics of chondrichthyans; his work revealed the occurrence of cryptic species within the nominal species *N. kuhlii* [questionably valid; based exclusively on DNA]

***Neotrygon caeruleopunctata* Last, White & Serét 2016** *caeruleus* (L.), blue; *punctatus* (L.), spotted, referring to its blue-spotted coloration and having a wider distribution than other blue-spotted congeners

***Neotrygon kuhlii* (Müller & Henle 1841)** in honor of German zoologist Heinrich Kuhl (1797–1821), who died while collecting fauna and flora in Java; his collections, drawings and manuscripts, housed at the Rijksmuseum van Natuurlijke Historie in Leiden, provided material for Müller & Henle and other biologists

***Neotrygon leylandi* (Last 1987)** in honor of Guy Leyland (b. 1950), Principal Executive Officer, Western Australia Fishing Industry Council, for supplying most of the Australian material used in Last's revision of the genus

***Neotrygon malaccensis* Borsa, Arlyza, Hoareau & Shen 2017** *-ensis*, Latin suffix denoting place: Strait of Malacca, type locality [questionably valid; based exclusively on DNA]

***Neotrygon moluccensis* Borsa, Arlyza, Hoareau & Shen 2017** *-ensis*, Latin suffix denoting place: Molucca Islands, Indonesia, type locality [questionably valid; based exclusively on DNA]

***Neotrygon ningalooensis* Last, White & Puckridge 2010** *-ensis*, Latin suffix denoting place: Coral Bay, Ningaloo Marine Park, off central coast of Western Australia, type locality

***Neotrygon orientalis* Last, White & Serét 2016** Latin for eastern, referring to its South-East Asian distribution (Indonesia, Malaysia, Borneo, Philippines, Taiwan) [originally spelled *orientale*, emended to reflect feminine gender of genus]

***Neotrygon picta* Last & White 2008** Latin for painted or colored, referring to color pattern of "peppery spots on a well-defined or weak reticulate background"

Neotrygon picta, holotype, female, disc width 236 mm. From: Last, P. R. and W. T. White. 2008. Resurrection of the genus *Neotrygon* Castelnau (Myliobatoidei: Dasyatidae) with the description of *Neotrygon picta* sp. nov., a new species from northern Australia. CSIRO Marine and Atmospheric Research Paper No. 022: 315-325.

Neotrygon romeoi **Glaus, White, O'Neill, Thurnheer & Appleyard 2025** in honor of the Romeo Glaus, father of the first author, for his "lasting inspiration, enduring support and deep respect for nature"

Neotrygon trigonoides **(Castelnau 1873)** *-oides*, Neo-Latin from *eĭdos* (εἶδος), form or shape: *Trygon* (=*Dasyatis*), referring to the similarity of their "entire, not marginated or divided" ventral fins

Neotrygon varidens **(Garman 1885)** *varius* (L.), different; *dens*, from *dentis* (L.), tooth, referring to how its larger, triangular and pointed teeth on upper jaw distinguish it from other *Dasybatis*, its genus at time of description

Neotrygon westpapuensis **Borsa, Arlyza, Hoareau & Shen 2017** *-ensis*, Latin suffix denoting place: West Papua, Indonesia, type locality [questionably valid; based exclusively on DNA]

Neotrygon yakkoei **Hata & Motomura 2024** from *Yakko-ei*, Japanese name for this species (also applied to *N. kuhlii*, with which this species has been confused)

Taeniura

Müller & Henle 1837

taenia (L.), from *tainía* (ταινία), band or ribbon; *ourá* (οὐρά), tail, referring to fin fold underneath tail of *T. lymna*

Taeniura lessoni **Last, White & Naylor 2016** in honor of René Lesson (1794–1849), French surgeon-naturalist, who once worked on members of this genus in Melanesia, where this stingray occurs

Taeniura lessoni, paratype, female, 220 mm disc width. From: Last, P. R., W. T. White and G. Naylor. 2016. Three new stingrays (Myliobatiformes: Dasyatidae) from the Indo-West Pacific. Zootaxa 4147 (4): 377–402.

Taeniura lymma **(Fabricius 1775)** Arabic name for this stingray (described from Yemen) [authorship often given as (Forsskål 1775)]

Whiprays

Subfamily UROGYMNINAE

Gray 1851

Brevitrygon

Last, Naylor & Manjaji-Matsumoto 2016

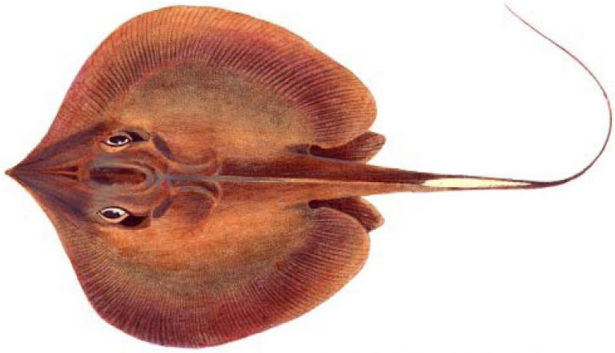
brevis (L.), short, referring to short and semi-rigid tail of all members of the genus; *trygón* (τρυγών), stingray, originating from *ptérýx* (πτέρυξ), wing[5], referring to the wing-like resemblance (and flying-like movement) of their pectoral fins

Brevitrygon heterura **(Bleeker 1852)** different-tailed, from *héteros* (ἕτερος), different, and *ourá* (οὐρά), tail, referring to posterior half of tail considerably thicker in the middle compared with *B. walga* and other presumed congeners in *Trygon*

Brevitrygon imbricata **(Bloch & Schneider 1801)** Latin for overlapping like roofing-tiles or shingles, referring to a line of bony scales, or denticles, on shoulder and back and along the tail as far as the stinger

Brevitrygon javaensis **(Last & White 2013)** *-ensis*, Latin suffix denoting place: off the coast of Java, Indonesia, where it is endemic

Brevitrygon manjajiae **Last, Weigmann & Naylor 2023** in honor of Mabel Manjaji-Matsumoto, University of Malaysia Sabah, for her contribution to the taxonomy of the whiprays; she was the first person to identify a unique feature of the tail coloration of this species



Brevitrygon walga. From: Müller, J. and F. G. J. Henle. 1838–41. Systematische Beschreibung der Plagiostomen. Veit und Comp., Berlin. i–xxii + 1-200, 60 pls. [Pp. 1–28 published in 1838, reset pp. 27–28, 29–102 in 1839, i-xxii + 103–200 in 1841.]

Brevitrygon walga **(Müller & Henle 1841)** etymology not explained, possibly a variant spelling of *wolga*, from *Wolga Tenkée*, a local name for this or a related stingray from the Ganges Delta of India

Fluvitrygon

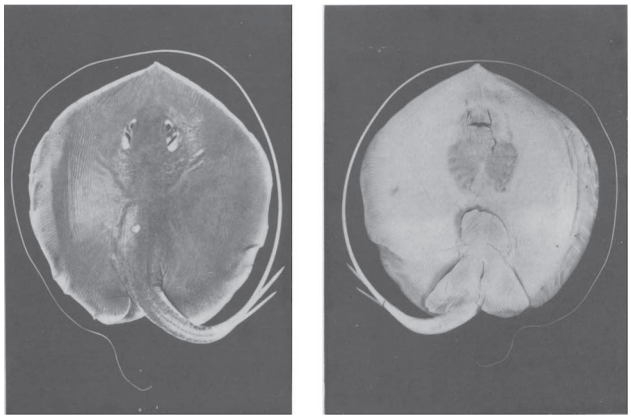
Last, Naylor & Manjaji-Matsumoto 2016

fluvius (L.), river, referring to riverine distribution of all members of the genus; *trygón* (τρυγών), stingray, originating from *ptérýx* (πτέρυξ), wing[5], referring to the wing-like resemblance (and flying-like movement) of their pectoral fins

Fluvitrygon kittipongi **(Vidthayanon & Roberts 2006)** in honor of Bangkok aquarium-fish dealer Khun Jarutanin Kittipong (b. 1958), who collected holotype

Fluvitrygon oxyrhynchus **(Sauvage 1878)** sharp-snouted, from *oxýs* (ὀξύς), sharp or pointed, and *rhýnchos* (ῥύγχος), snout, referring to its elongate snout [sometimes spelled *oxyrhyncha*]

Fluvitrygon signifer **(Compagno & Roberts 1982)** *signum* (L.), mark; *-fer*, from *fero* (L.), to have or bear, referring to milk-white spots anterior to spiracles and posterior to eyes



Fluvitrygon signifer, holotype, immature female, 294 mm disc width. From: Compagno, L. J. V. and T. R. Roberts. 1982. Freshwater stingrays (Dasyatidae) of southeast Asia and New Guinea, with description of a new species of *Himantura* and reports of unidentified species. Environmental Biology of Fishes 7 (4): 321–339.

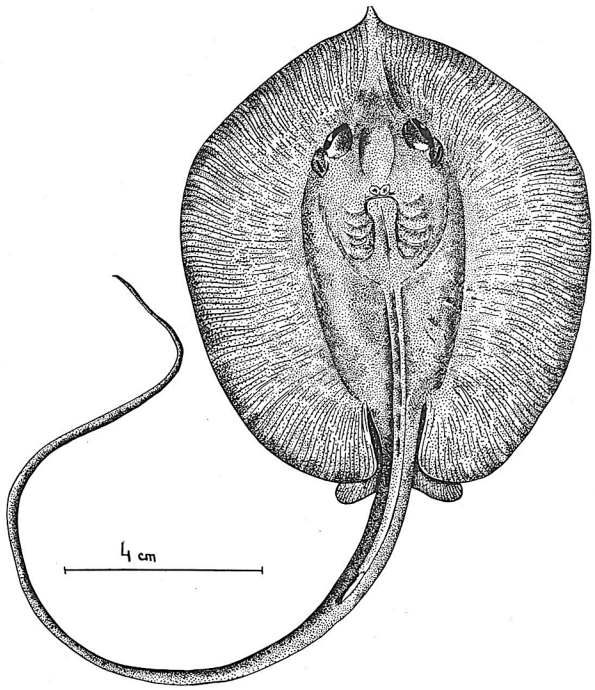
Fontitrygon

Last, Naylor & Manjaji-Matsumoto 2016

fontis (L.), spring, referring to the ability of these stingrays to live in estuaries and fresh water; *trygón* (τρυγών), stingray, originating from *ptérýx* (πτέρυξ), wing[5], referring to the wing-like resemblance (and flying-like movement) of their pectoral fins

Fontitrygon colarensis **(Santos, Gomes & Charvet-Almeida 2004)** *-ensis*, Latin suffix denoting place: Colares Island, district of Colares (Pará State, Brazil), type locality

Fontitrygon garouaensis **(Stauch & Blanc 1962)** *-ensis*, Latin suffix



Fontitrygon garouaensis, juvenile. From: Stauch, A. and M. Blanc. 1962. Description d'un sélacien rajiforme des eaux douces du Nord-Cameroun: *Potamotrygon garouaensis* n.sp. Bulletin du Muséum National d'Histoire Naturelle (Série 2) 34 (2): 166–171.

denoting place: Garoua, northern Cameroon, type locality

Fontitrygon margarita **(Günther 1870)** Latin for pearl, referring to pearl spine, a single large round tubercle, like a pearl, at center of back

Fontitrygon margaritella **(Compagno & Roberts 1984)** diminutive of *margarita* (L.), pearl, referring to for overall smaller size and smaller pearl spine compared with *F. margarita*

Fontitrygon ukpam **(Smith 1863)** local name for freshwater stingrays in Nigeria, where type locality (Calabar River) is situated

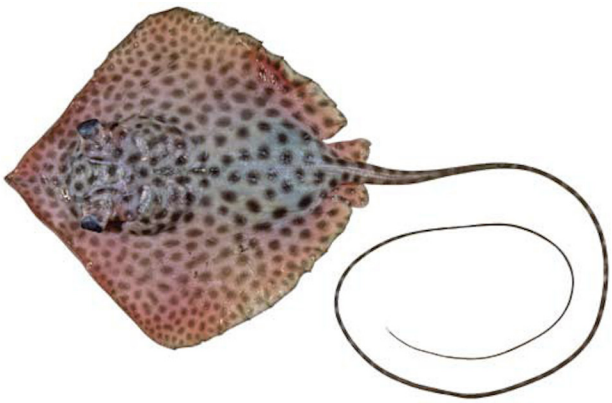
Himantura

Müller & Henle 1837

himántos (ἱμάντος), genitive of *himás* (ἱμάς), leather strap or thong; *ourá* (οὐρά), tail, referring to long, whip-like tail of *H. uarnak*

Himantura arlyzae **Borsa, Hernawan, Hocdé & Pouyaud 2026** in honor of Irma S. Arlyza (1974–2019), for her contribution to the genetics and taxonomy of Himantura and her efforts to promote molecular genetics into studies of elasmobranchs in the Indonesian archipelago

Himantura australis **Last, White & Naylor 2016** Latin for southern, referring to its distribution in the tropical Southern Hemisphere



Himantura leoparda, early juvenile paratype, female 200 mm disc width. From: Manjaji-Matsumoto, B. M. and P. R. Last 2008. *Himantura leoparda* sp. nov., a new whipray (Myliobatoidei: Dasyatidae) from the Indo-Pacific. CSIRO Marine and Atmospheric Research Paper No. 022: 293–301.

Himantura leoparda **Manjaji-Matsumoto & Last 2008** modified from *leopardus* (L.), leopard, referring to leopard-like markings on dorsal surface of large specimens (>550 mm disc width)

Himantura marginata **(Blyth 1860)** Latin for bordered, referring to "broad dark margin" on lower part of body (except in front) "consisting of numerous large round spots"

Himantura tutul **Borsa, Durand, Shen, Arlyza, Solihin & Berrebi 2013** Malay word for spotted, referring to leopard-like markings on dorsal surface of large specimens (>1000 mm disc width)

Himantura uarnak **(Gmelin 1789)** Arabic name for this stingray (described from the Red Sea) [also spelled *arnak* in some pre-Linnaean literature]

Himantura undulata **(Bleeker 1852)** Latin for wavy, referring to black undulations on dorsal surface (which seems a curious description since the ray's markings more closely resemble the spots of a leopard)

Maculabatis

Last, Naylor & Manjaji-Matsumoto 2016

macula (L.), stain, mark or spot, referring to spotted coloration and/or black-and-white banded tail of most members of the genus; *batís* (βατίς), a flat fish, usually applied to a skate or ray

Maculabatis ambigua **Last, Bogorodsky & Alpermann 2016** Latin for uncertain or doubtful, referring to its "uncertain species level uniqueness," i.e., very closely resembling plain-color morphs of *M. gerrardi* and *M. randalli*, but is more closely related to white-spotted members of the genus

Maculabatis arabica **Manjaji-Matsumoto & Last 2016** *-ica* (L.), belonging to: Arabia, referring to its distribution in the Arabian Sea, off Pakistan and eastward to nearby Gujarat Province, India

Maculabatis astra **(Last, Manjaji-Matsumoto & Pogonoski 2008)** *astra-*, from *aster* (L.), star or constellation, referring to dorsal coloration, "which usually consists of dark spots orbited in various ways by whitish spots, vaguely resembling a cluster of stars (most evident in larger specimens)"

Maculabatis bineeshi **Manjaji-Matsumoto & Last 2016** in honor of Indian biologist K. K. Bineesh (b. 1981), "who has worked closely with local Indian colleagues to build a better understanding of the shark and ray fauna of the northern Indian Ocean"

Maculabatis gerrardi **(Gray 1851)** in honor of taxidermist Edward Gerrard (1810–1910), British Museum (Natural History), who assisted Gray with shark and ray identifications

Maculabatis macrura **(Bleeker 1852)** big-tailed, from *makrós* (μακρός),

Maculabatis ambigua, holotype, immature male, 492 mm disc width. From: Last, P. R., S. V. Bogorodsky and T. J. Alpermann. 2016. *Maculabatis ambigua* sp. nov., a new whipray (Myliobatiformes: Dasyatidae) from the western Indian Ocean. Zootaxa 4154 (1): 66–78.

long or large, and *ourá* (οὐρά), tail, described as three times longer than its disc, or body

Maculabatis pastinacoides **(Bleeker 1852)** *-oides*, Neo-Latin from *eĭdos* (εἶδος), form or shape: described as similar to *Dasyatis pastinaca*

Maculabatis randalli **(Last, Manjaji-Matsumoto & Moore 2012)** in honor of American ichthyologist John E. Randall (1924–2020), Bishop Museum (Honolulu), for "legendary" work on the taxonomy of Indo-Pacific fishes, and for being amongst the first to publish a photograph of this species (as *H. gerrardi*) in 1995

Maculabatis toshi **(Whitley 1939)** in honor of late James R. Tosh (1872–1917)[1], Scottish marine biologist and inland waterway engineer, Marine Department of Queensland, who figured this ray in a 1902–1903 government report

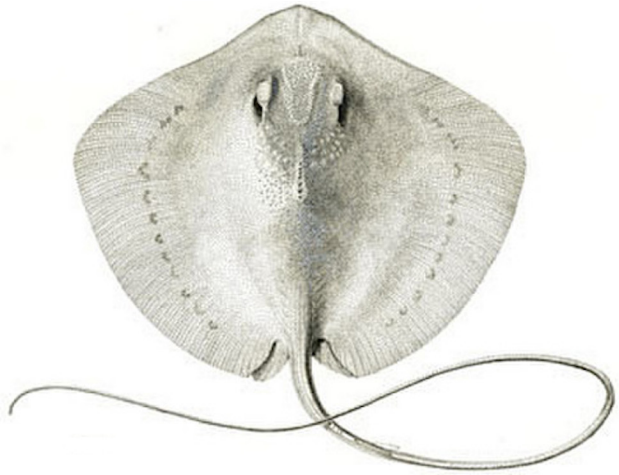
Pateobatis

Last, Naylor & Manjaji-Matsumoto 2016

pateo (L.), lie open or to be exposed, referring to the "eclectic nature" (i.e., morphologically heterogeneous) members of this genus; *batís* (βατίς), a flat fish, usually applied to a skate or ray

Pateobatis bleekeri **(Blyth 1860)** in honor of Dutch army surgeon and ichthyologist Pieter Bleeker (1819–1878), whose work is frequently cited in Blyth's study of the cartilaginous fishes of Bengal (India)

Pateobatis fai **(Jordan & Seale 1906)** presumably the Samoan vernacular for this ray (described from Samoa)



Pateobatis fai, holotype. Illustration by Frances G Lauderbach. From: Jordan, D. S. and A. Seale. 1906. The fishes of Samoa. Description of the species found in the archipelago, with a provisional check-list of the fishes of Oceania. Bulletin of the Bureau of Fisheries 25 (for 1905): 173–455 + index 457-488, Pls. 33–53.

Pateobatis hortlei **(Last, Manjaji-Matsumoto & Kailola 2006)** in honor of Kent Hortle, Australian fisheries and environmental consultant, who supplied the first photographs of the species and later collected fresh specimens for the type series from southern Irian Jaya

Pateobatis jenkinsii **(Annandale 1909)** in honor of British ichthyologist James Travis Jenkins (1876–1959), Fishery Advisor, Government of Bengal, who helped Annandale collect holotype

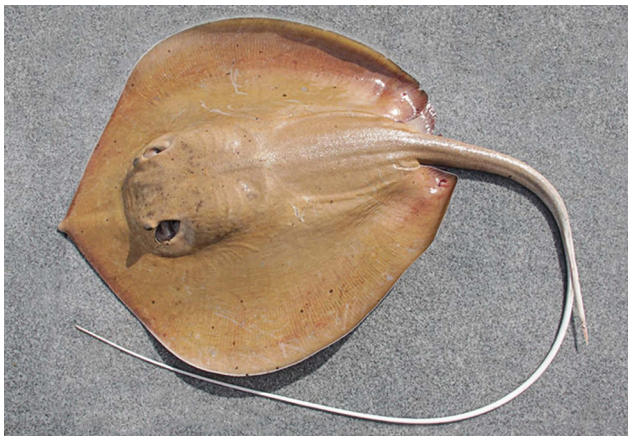
Pateobatis uarnacoides **(Bleeker 1852)** *-oides*, Neo-Latin from *eĭdos* (εἶδος), form or shape: described as similar to *Himantura uarnak*, its presumed congener at the time

Urogymnus

ourá (οὐρά), tail; *gymnus*, from *gymnós* (γυμνός), bare or naked, referring to lack of venomous spine on tail of *U. asperrimus*

Urogymnus acanthobothrium **Last, White & Kyne 2016** named for *Acanthobothrium*, a genus of cestode parasites, four species of which have been found on this ray (discovered during a field survey of the parasite fauna of northern Australian chondrichthyan fishes)

Urogymnus asperrimus **(Bloch & Schneider 1801)** Latin for very rough,



Urogymnus acanthobothrium, holotype, juvenile male, 672 mm disc width. From: Last, P. R., W. T. White and P. M. Kyne. 2016. *Urogymnus acanthobothrium* sp. nov., a new euryhaline whipray (Myliobatiformes: Dasyatidae) from Australia and Papua New Guinea. Zootaxa 4147 (2): 162–176.

referring to numerous large thorns covering back and tail of adults

Urogymnus dalyensis **(Last & Manjaji-Matsumoto 2008)** *-ensis*, Latin suffix denoting place: Daly River, Northern Territory, type locality

Urogymnus granulatus **(Macleay 1883)** *-atus* (L.), provided with: *granum* (L.), seed or grain, referring to its head and back "covered with small granules which extend on the ridge of the tail to the spine"

Urogymnus lobistoma **(Manjaji-Matsumoto & Last 2006)** *lobus* (L.), from *lobós* (λοβός), elongated projection or protuberance; *stóma* (στόμα), mouth, referring to its protrusible, tube-like mouth

Urogymnus polylepis **(Bleeker 1852)** *polý* (πολύ), many; *lepís* (λεπίς), scale, referring to smaller (and therefore more numerous) scales on tail compared with most congeners (then placed in *Trygon*) known to Bleeker

Cowtail Stingrays

Subfamily HYPOLOPHINAE[6]

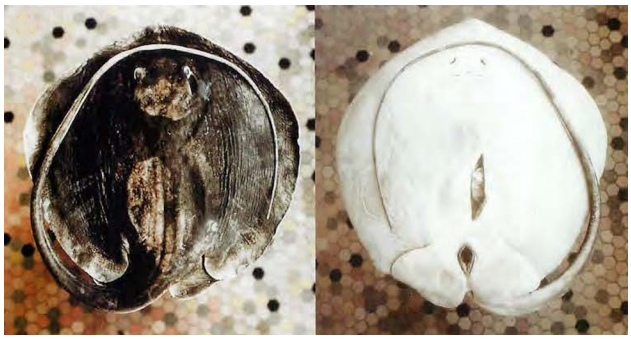
Stromer 1910

Makararaja

Roberts 2007

makara, Sanskrit for crocodile but also term for cosmological arches or gateways of Hindu temples shaped like the open jaws of a crocodile, referring to jaw shape of *Pastinachus* and this genus; *raja*, from *raia*, Latin for ray or skate

Makararaja chindwinensis **Roberts 2007** *-ensis*, Latin suffix denoting place: Chindwin River, Irrawaddy basin, northern Myanmar, type locality



Makararaja chindwinensis, dorsal (left) and ventral (right) views, holotype, mature female, 385 mm disc width. From: Roberts, T. R. 2007. *Makararaja chindwinensis*, a new genus and species of freshwater dasyatidid Pastinachine stingray from upper Myanmar. Natural History Bulletin of the Siam Society 54 (2) (for 2006): 285–293.

---

[6] Etymology of Hypolophinae: from *hypó* (ὑπό), underneath (i.e., ventral); *lophus*, from *lóphos* (λόφος), mane, crest or tuft, referring to cutaneous fold under tail of *Pastinachus sephen*. Even though *Hypolophus* Müller & Henle 1837 is a junior synonym of *Pastinachus*, Hypolophinae Stromer 1910 is the earliest subfamily proposed for this clade.

Pastinachus

Rüppell 1829

Pastinachus, the name of a ray "known to the ancient naturalists" (translation), probably referring to *Dasyatis pastinaca*, from the Latin for parsnip, presumably referring (per Salviani, 1558, *Aquatilium Animalium Historiae*) to how its tail "closely resembles the root of a parsnip in color, roundness and length" (translation)

Pastinachus ater **(Macleay 1883)** Latin for black, referring to "jet glossy black" coloration of entire dorsal surface

Pastinachus gracilicaudus **Last & Manjaji-Matsumoto 2010** *gracilis* (L.), slender or thin; *caudus* (L.), tail or appendage, referring to slender appearance of tail and narrow ventral cutaneous fold as compared to other members of the genus

Pastinachus sephen **(Fabricius 1775)** Arabic vernacular for this stingray, from *safan*, shagreen, referring to granulated skin, which is used to make leather for cases, bookbindings and other objects [authorship often given as (Forsskål 1775)]

Pastinachus solocirostris **Last, Manjaji & Yearsley 2005** *solocis* (L.), rough or bristly; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to the "unusually rough texture of the snout"

Pastinachus stellurostris **Last, Fahmi & Naylor 2010** *stella* (L.), star; *rostris*, Neo-Latin scientific adjective of *rostrum* (L.), snout, referring to star-shaped denticles on snout

Pastinachus stellurostris, holotype, adult male, 422 mm disc width. From: Last, P. R., [no initials] Fahmi and G. J. P. Naylor. 2010. *Pastinachus stellurostris* sp. nov., a new stingray (Elasmobranchii: Myliobatiformes) from Indonesian Borneo. *In*: Descriptions of new sharks and rays from Borneo. CSIRO Marine and Atmospheric Research Paper No. 032: 129–139.