Order MYLIOBATIFORMES Stingrays
12 families · 39 genera · 233 species

Family ZANOBATIDAE Panrays

Zanobatus Garman 1913
zanobatus, etymology not explained and meaning unknown; batis, Greek for a flat fish, usually applied to a skate or ray

Zanobatus maculatus Séret 2016
spotted, referring to blotched color pattern

Zanobatus schoenleinii (Müller & Henle 1841)
in honor of Henle's friend and associate Johann Lucas Schönlein (1793-1864), naturalist and professor of medicine, who supplied type from his anatomical museum in Berlin

Family PLESIOBATIDAE Giant Stingaree

Plesiobatis Nishida 1990
plesiobatis, primitive; batis, ancient Greek for a flat fish, usually applied to a skate or ray, i.e., the most primitive (least derived) myliobatiform ray

Plesiobatis daviesi (Wallace 1967)
in honor of David H. Davies, late director of the Oceanographic Research Institute (Durban, South Africa), “who was responsible for the initiation of research on the batoid fishes of the east coast of Southern Africa”

Family UROLOPHIDAE Stingarees
3 genera · 28 species

Spinilophus Yearsley & Last 2016
spinilophus, thorn or spine, referring to thorns, spinules and dermal denticles on dorsal surface; lophus, shortening of Urolophus (original genus)

Spinilophus armatus (Valenciennes 1841)
armed with a weapon, referring to thorns, spinules and dermal denticles on dorsal surface (authorship often attributed to Müller & Henle, who published Valenciennes' description)

Trygonoptera Müller & Henle 1841
trygon, ancient Greek for stingray, possibly derived from tri-, three and gonio-, angle, referring to triangular shape of some stingrays formed by head and pectoral fins; ptera, fin, possibly referring to small dorsal fin on tail

Trygonoptera galba Last & Yearsley 2008
galbus, yellow, referring to distinctive dorsal coloration

Trygonoptera imitata Yearsley, Last & Gomon 2008
imitata, copy or mimic, referring to similarity to T. mucosa and T. testacea and confusion over their identification

Trygonoptera mucosa (Whitley 1939)
slimy, referring to its “extremely slimy” back

Trygonoptera ovalis Last & Gomon 1987
oval, referring to its nearly oval disc

Trygonoptera personata Last & Gomon 1987
masked, referring to continuous dark mask-like markings around and between eyes

Trygonoptera testacea Müller & Henle 1841
brick-like, referring to pale brick-like color of dorsal surface

Urolophus Müller & Henle 1837
oura, tail; lophus, crest, referring to lobe-like caudal fin, i.e., “a fin at the tip of the tail” (translation)

Urolophus aurantiacus Müller & Henle 1841
orange-colored, referring to dark-orange coloration of upper surface
**Urolophus bucculentus** Macleay 1884
with full cheeks, referring to size of mouth, which is more than three times larger proportionally to size of ray than in *Trygonoptera testacea*

**Urolophus circularis** McKay 1966
round, referring to its almost circular disc

**Urolophus cruciatus** (Lacepède 1804)
cruciform, referring to cross-like pattern of stripes and crossbars on dorsal surface

**Urolophus deforgesii** Séret & Last 2003
in honor of Bertrand Richer de Forges (Institut de Recherche pour le Développement), for promoting the exploration of the bathyal fauna off New Caledonia and for collecting valuable fish specimens from cruise surveys

**Urolophus expansus** McCulloch 1916
wide, referring to its broad disc

**Urolophus flavomosaicus** Last & Gomon 1987
flavus, yellow, referring to yellowish dorsal surface; mosaicus, referring to mosaic pattern of large, whitish spots encircled by rings

**Urolophus gigas** Scott 1954
large; allusion not explained but probably referring to large size (second largest *Urolophus* in Australia) and/or large spiracles

**Urolophus javanicus** (Martens 1864)
-javanicus, belonging to: Java, Indonesia, type locality

**Urolophus kaianus** Günther 1880
-kaianus, belonging to: Kai Islands, Indonesia, Arafura Sea, type locality
Urolophus kapalensis Yearsley & Last 2006  
-ensis, suffix denoting place: FRV Kapala (formerly of the N.S.W. Fisheries Research Institute, Australia), which collected type, in honor of the "extremely valuable fish collections made by the vessel over almost three decades"

Urolophus lobatus McKay 1966  
lobed, referring to prominent lobes on front borders of internasal flap

Urolophus mitosis Last & Gomon 1987  
referring to granular blotches on dorsal surface, which resemble living cells in the process of mitotic division

Urolophus neocaledoniensis Séret & Last 2003  
-ensis, suffix denoting place: New Caledonia, where it appears to be the most abundant and widely distributed “stingaree” in the region

Urolophus orarius Last & Gomon 1987  
of the coast, referring to distribution along eastern Great Australian Bight, between Ceduna and Beachport, at depths of 20-50 m

Urolophus papilio Séret & Last 2003  
butterfly, referring to particularly broad “wingspan” of disc

Urolophus paucimaculatus Dixon 1969  
paucus, few; maculatus, spotted, referring to a few small white spots that sometimes appear on pectoral fins

Urolophus piperatus Séret & Last 2003  
peppered, referring to dark flecks scattered on dorsal surface

Urolophus sufflavus Whitley 1929  
yellowish, referring to uniform yellow-brown color of dorsal surface

Urolophus viridis McCulloch 1916  
green, referring to uniform light-green color of dorsal surface

Urolophus westraliensis Last & Gomon 1987  
-ensis, suffix denoting place: Western Australia, specifically northwestern Australia, where it occurs on outer continental shelf

Family HEXATRYGONIDAE Sixgill Stingray

Hexatrygon Heemstra & Smith 1980  
hexa-, six, referring to its six gills (all other rays have five); trygon, ancient Greek for stingray, possibly derived from tri-, three and gonio-, angle, referring to triangular shape of some stingrays formed by head and pectoral fins

Hexatrygon bickelli Heemstra & Smith 1980  
in honor of Dave Bickell, a former angling correspondent for the Eastern Province Herald, who discovered the first specimen washed up on the beach

Family DASYATIDAE Stingrays

19 genera · 95 species

Subfamily Dasyatinae

8 genera · 34 species

Bathytoslia Whitley 1933  
bathy, deep, presumably referring to ocean habitat of type species, Dasyatis thetidis (= B. lata), compared to riverine habitat of Hemistegia flaviorum, which Whitley placed in a genus he called Toslia, described in the same paper; both Toslia and Bathytoslia are named after the late James R. Tosh (1872-1917), Marine Department of Queensland, who mentioned and illustrated stingrays in a report on the fishes of Moreton Bay, Australia (note: Tosh later died of heat stroke while working for the British Red Cross in Iraq)

Bathytoslia brevicaudata (Hutton 1875)  
brevi-, short; caudata, tailed, referring to short tail, usually shorter than disc length

Bathytoslia centoura (Mitchell 1815)  
centura, pricker; oura, tail, referring to “prickly shields or scales” on tail

Bathytoslia lata (Garman 1880)  
latus, wide, referring to wider disc compared to Hypanus longus, its presumed congener at the time

Dasyatis Rafinesque 1810  
dasy, shaggy or rough, referring to prickly skin; [k]atì, ancient Greek for a flat fish, usually applied to a skate or ray
**Dasyatis chrysonota** (Smith 1828)
*chryso-*, gold; *notus*, back, referring to golden-green dorsal coloration

**Dasyatis hypostigma** Santos & Carvalho 2004
*hypo-*, ventral; *stigma*, mark, referring to distinctive W-shaped furrow on ventral surface behind fifth pair of gill slits

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

**Dasyatis pastinaca** (Linnaeus 1758)
presumably a Roman word for the stingray's stinger (and applied by ancient scholars to stingrays in general), possibly alluding to similarity of stinger's shape to *pastinum*, a small gardening tool used to make holes in the ground for the insertion of plants, seeds or bulbs

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

**Hemitrygon Müller & Henle 1838**
*hemi-*, partial, proposed as a subgenus of *Trygon* (= *Dasyatis*)

**Hemitrygon akajei** (Müller & Henle 1841)
*aka*, Japanese for red, referring to bright orange-red underside; *jej*, Japanese for skate and ray

**Hemitrygon bennetti** (Müller & Henle 1841)
presumably in honor of 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)
of rivers, referring to its ascending coastal rivers and estuaries “well above the tideway”

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

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

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

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

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Hemitrygon navarrae (Steindachner 1892)  
in honor of B. R. Navarra (possibly Bruno Navarra, Chinese-history scholar), who supplied the Imperial Court Museum of Natural History (Vienna) with fish specimens collected in Shanghai

Hemitrygon parvonigra (Last & White 2008)  
*parvus*, little; *nigra*, black, referring to resemblance to a larger Australian species, *Dasyatis thetidis* (=*Bathytosia lata*)

Hemitrygon sinensis (Steindachner 1892)  
-ensis, suffix denoting place: Sinica (China), referring to its distribution

Hypanus Rafinesque 1818  
etymology not explained, perhaps *hyp* [or] -er, over or above, and *anus*, anal, referring to presence of both dorsal and anal fins on *H. say*, which Rafinesque compared to the lack of such fins on a ray he called *Uroxyx maclura* (=*Gymnura altavela*, Gymnuridae)

Hypanus americanus (Hildebrand & Schroeder 1928)  
American, probably referring to distribution off coasts of both North and South America, from Crisfield, Maryland, USA (type locality), to Brazil

Hypanus dipterurus (Jordan & Gilbert 1880)  
di-, two; *ptero*, fin; *oura*, tail, referring to “conspicuous cutaneous fold below [tail] and a smaller but evident one above”

Hypanus guttatus (Bloch & Schneider 1801)  
speckled, probably referring to black spots on dorsal surface as illustrated in Marcgrave’s *Historiae naturalis brasiliae* (1648)

Hypanus longus (Garman 1880)  
long, compared to longer disc compared to *Bathytosia 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 rudis (Günther 1870)  
rough, referring to “minute, dense asperities” on tail and dorsal surface

Hypanus sabinus (Lesueur 1824)  
etymology not explained, perhaps referring to *Juniperus sabina*, a prostrate Eurasian evergreen juniper used in folk medicine, alluding to flattened shape of ray’s body

Hypanus say (Lesueur 1817)  
in honor of naturalist Thomas Say (1787-1834), Lesueur’s friend and colleague at the Academy of Natural Sciences of Philadelphia [a noun in apposition, without the patronymic “i”]

Megatrygon Last, Naylor & Manjaji-Matsumoto 2016  
*mega*, large, great or mighty, referring to “massive bulk” of the “gigantic” *M. microps*; *trygon*, ancient Greek for stingray, possibly derived from *tri-*, three and *gonio*- , angle, referring to triangular shape of some stingrays formed by head and pectoral fins

Megatrygon microps (Annandale 1908)  
*micro-*, small; *ops*, eye, referring to “very small” eyes

Pteroplatytrygon Fowler 1910  
*ptero*, fin; *platy*, broad, referring to broad pectoral-fin disc; *trygon*, ancient Greek for stingray, possibly derived from *tri-*, three and *gonio*- , angle, referring to triangular shape of some stingrays formed by head and pectoral fins

Pteroplatytrygon violacea (Bonaparte 1832)  
purple, referring to body color

Taeniuros Garman 1913  
*ops*, appearance, originally proposed as a subgroup of *Taeniura*

Taeniuros grabatus (Geoffroy St. Hilaire 1817)  
bed, Latin translation of its ancient Arabic name, *farch* (allusion not evident)

Taeniuros meyeni (Müller & Henle 1841)  
in honor of Franz Julius Ferdinand Meyen (1804-1840), physician and botanist, who presumably collected or supplied specimens

Telatrygon Last, Naylor & Manjaji-Matsumoto 2016  
*telum*, javelin, spear, *arrow* or dart, referring to long, narrowly pointed snout possessed by all members of the genus; *trygon*, Greek for stingray, possibly derived from *tri-*, three and *gonio*- , angle, referring to triangular shape of some stingrays formed by the acute shapes of the head and left and right pectoral fins
Telatrygon acutirostra (Nishida & Nakaya 1988)

*acutus*, sharp; *rostris*, snout, referring to 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 probably in honor of anatomy and physiology professor William Crozier (d. 1862), Blyth’s colleague at (and finance chair of) the Asiatic Society of Bengal

Telatrygon microphthalmus (Chen 1948)

*micro-*, small; *ophthalmus*, eye, referring to smaller eye compared to *Brevitrygon imbricata* and *B. walga*, its presumed congeners at the time

Telatrygon zugei (Müller & Henle 1841)

*zugu-ei*, Japanese vernacular for this stingray

Subfamily Neotrygoninae

2 genera - 17 species

Neotrygon Castelnau 1873

*neo-*, new, i.e., a new genus of *Trygon* (=*Taeniura*)

Neotrygon annotata (Last 1987)

*an-*, not; *notatus*, 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*, sky blue; *punctatus*, 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 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 naturalists

Neotrygon leylandi (Last 1987)

in honor of Guy Leyland, for supplying most of the Australian material used in Last’s revision of the genus

Neotrygon malaccensis Borsa, Arlyza, Hoareau & Shen 2017

*ensis*, suffix denoting place: Strait of Malacca, type locality [questionably valid; based exclusively on DNA]

Neotrygon moluccensis Borsa, Arlyza, Hoareau & Shen 2017

*ensis*, suffix denoting place: Molucca Islands, Indonesia, type locality [questionably valid; based exclusively on DNA]

Neotrygon ningaloensis Last, White & Puckridge 2010

*ensis*, suffix denoting place: Coral Bay, Ningaloo Marine Park, off central coast of Western Australia, type locality

Neotrygon orientalis Last, White & Serét 2016

eastern, referring to its South-East Asian distribution (Kalimantan and West Java in Indonesia, Malaysian Borneo, Philippines)

Neotrygon picta Last & White 2008

painted or colored, referring to color pattern of peppery spots on a well-defined or weak reticulate background

Neotrygon trigonoides (Castelnau 1873)

*-oides*, having the form of: *Trygon* (=*Taeniura*), referring to similarity of their “entire, not marginated or divided” ventral fins

Neotrygon vail Borsa 2017

word for stingray in Gela, one of the languages spoken on Guadalcanal Island (type locality), and its common name among Guadalcanal fishers [questionably valid; based exclusively on DNA]

Neotrygon varidens (Garman 1885)

*varius*, different; *dens*, teeth, 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, suffix denoting place: West Papua, Indonesia type locality [questionably valid; based exclusively on DNA]

Taeniura Müller & Henle 1837
taenia, ribbon; oura, tail, referring to fin fold underneath tail

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 species occurs

Taeniura lymma (Forsskål 1775)
Arabic name for this stingray (described from Yemen)

Subfamily Urogymninae
7 genera · 38 species

Brevitrygon Last, Naylor & Manjaji-Matsumoto 2016
brevis, short, referring to short and semi-rigid tail of all members of the genus; trygon, ancient Greek for stingray, possibly derived from tri-, three and gonio-, angle, referring to triangular shape of some stingrays formed by the acute shapes of the head and left and right pectoral fins

Brevitrygon heterura (Bleeker 1852)
heteros, different; oura, tail, referring to posterior half of tail considerably thicker in the middle compared to B. walga

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

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

Brevitrygon walga (Müller & Henle 1841)
presumably a variant spelling of wolga, presumably an Indian vernacular for ray or stingray

Fluvitrygon Last, Naylor & Manjaji-Matsumoto 2016
fluvius, river, referring to riverine distribution of all members of the genus; trygon, ancient Greek for stingray, possibly derived from tri-, three and gonio-, angle, referring to triangular shape of some stingrays formed by the acute shapes of the head and left and right pectoral fins

Fluvitrygon kittipongi (Vidthayanon & Roberts 2006)
in honor of Bangkok aquarium fish dealer Khun Jarutanin Kittipong, who collected type

Fluvitrygon oxyrhyncha (Sauvage 1878)
oxy, sharp or pointed; rhynchus, snout, referring to elongate snout

Fluvitrygon signifer (Compagno & Roberts 1982)
signum, mark; fero, to bear, referring to milk-white spots anterior to spiracles and posterior to eyes

Fontitrygon Last, Naylor & Manjaji-Matsumoto 2016
fontis, spring or fountain, reflecting ability of these stingrays to live in estuaries and fresh water; trygon, ancient Greek for stingray, possibly derived from tri-, three and gonio-, angle, referring to triangular shape of some stingrays formed by the acute shapes of the head and left and right pectoral fins

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

Fontitrygon garouarenensis (Stauch & Blanc 1962)
-ensis, suffix denoting place: Garoua, northern Cameroon, type locality

Fontitrygon geijskesi (Boeseman 1948)
in honor of entomologist D. C. Geijskes (1907–1985), Director, Suriname Museum, Paramaribo, who collected type and furnished Boeseman with many fishes from Suriname

Fontitrygon margarita (Günther 1870)
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, pearl, for overall smaller size and smaller pearl spine compared to F. margarita

Fontitrygon ukpam (Smith 1863)
local Nigerian name for freshwater stingrays

Himantura Müller & Henle 1837
himanto-, leather strap, thong or leash; oura, tail, referring to long, slender, whip-like tail
**Himantura australis** Last, White & Naylor 2016

southern, referring to its distribution in the tropical Southern Hemisphere

**Himantura leoparda** Manjaji-Matsumoto & Last 2008

referring to leopard-like markings on dorsal surface of large specimens (>550 mm disc width)

**Himantura marginata** (Blyth 1860)

bordered, referring to “broad dark margin” on lower part of body (except in front) “consisting of numerous large round spots”

**Himantura uarnak** (Gmelin 1789)

Arabic name for this stingray (also spelled arnak in some pre-Linnaean literature)

**Himantura undulata** (Bleeker 1852)

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_, stain, mark or spot, referring to spotted coloration and/or black-and-white banded tail of most members of the genus; _batis_, ancient Greek for a flat fish, usually applied to a skate or ray

**Maculabatis ambigua** Last, Bogorodsky & Alpermann 2016

uncertain or doubtful, referring to its “uncertain species level uniqueness,” i.e., very closely resembling plain-color morphs of _M. gerrardi_ from the northern Indian Ocean, and _M. randalli_ from the nearby Persian Gulf, but is more closely related to white-spotted members of the genus

**Maculabatis arabica** Manjaji-Matsumoto & Last 2016

Arabian, referring to its distribution in the Arabian Sea, off Pakistan and eastward to nearby Gujarat Province, India

**Maculabatis astra** (Last, Manjaji-Matsumoto & Pogonoski 2008)

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, “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 Edward Gerrard, taxidermist at the British Museum (Natural History), who assisted Gray with shark and ray identifications

**Maculabatus macrura** (Bleeker 1852)

_macro_, long; _oura_, tail, described as three times longer than its disc, or body

**Maculabatus pastinacoides** (Bleeker 1852)

_-oides_, having the form of: referring to similarity to _Dasyatis pastinaca_

**Maculabatis randalli** (Last, Manjaji-Matsumoto & Moore 2012)

in honor of John E. Randall (b. 1924), 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), Marine Department of Queensland, who figured this ray in a 1902-1903 government report (note: Tosh later died of heat stroke while working for the British Red Cross in Iraq)

**Pateobatis** Last, Naylor & Manjaji-Matsumoto 2016

_pateo_, lie open or to be exposed, referring to the “eclectic nature” (i.e., morphologically heterogeneous) members of this genus; _batis_, ancient Greek for a flat fish, usually applied to a skate or ray

**Pateobatis bleekeri** (Blyth 1860)

in honor of Dutch medical doctor 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

**Pateobatis hortlei** (Last, Manjaji-Matsumoto & Kailola 2006)

in honor of Kent Hортle, “private [biological] 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 J. Travis Jenkins, Fishery Advisor, Government of Bengal, who helped Annandale collect type

**Pateobatis uarnacoides** (Bleeker 1852)

_-oides_, having the form of, referring to similarity to _Himantura uarnak_, its presumed congener at the time
Urogymnus Müller & Henle 1837
oura, tail; gymno, bare or naked, referring to lack of venomous spine on tail

Urogymnus acanthobothrium Last, White & Kyne 2016
named for 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)
very rough, referring to numerous large thorns covering the back and tail of adults

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

Urogymnus granulatus (Macleay 1883)
fine grained, referring to “covered with small granules which extend on the ridge of the tail to the spine”

Urogymnus lobistoma (Manjaji-Matsumoto & Last 2006)
lobus, elongated projection or protuberance; stoma, mouth, referring to protrusible, tube-like mouth

Urogymnus polylepis (Bleeker 1852)
poly, many; lepis, scale, referring to smaller (and therefore more numerous) scales on tail compared to most congeners (then placed in Trygon) known to Bleeker

Subfamily Hypolophinae
2 genera · 6 species
hypo-, ventral or below; lophus, crest, referring to cutaneous fold under tail [even though Hypolophus Müller & Henle 1837 is a junior synonym of Pastinachus Rüppell 1829, Hypolophinae Stromer 1910 is the earliest subfamily proposed for this clade]

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 new genus; raja, Latin for ray or skate

Makararaja chinwinedensis Roberts 2007
-ensis, suffix denoting place: Chinwined River, Irrawaddy basin, northern Myanmar, type locality

Pastinachus Rüppell 1829
presumably a Roman word for the stingray’s stinger (and applied by ancient scholars to stingrays in general), possibly alluding to similarity of stinger’s shape to pastinum, a small gardening tool used to make holes in the ground for the insertion of plants, seeds or bulbs

Pastinachus ater (Macleay 1883)
black, referring to “jet glossy black” coloration of entire dorsal surface

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

Pastinachus sephen (Forsskål 1775)
Arabic vernacular, from safan, shagreen, referring to granulated skin, which is used to make leather for cases, book-bindings and other objects

Pastinachus solocirostris Last, Manjaji & Yearsley 2005
soloci, rough or bristly; rostrum, snout, referring to unusually rough texture of snout

Pastinachus stellurostris Last, Fahmi & Naylor 2010
stella, starry; rostrum, snout, referring to star-shaped denticles on snout

Family POTAMOTRYGONIDAE Neotropical Stingrays
5 genera · 37 species

Subfamily Styracurinae

Styracura Carvalho, Loboda & Silva 2016
styrax, spine at the butt end of a spear; oura, tail, referring to greatly elongated caudal stings

Styracura pacifica (Beebe & Tee-Van 1941)
-ica, belonging to: the Pacific, referring to distribution off Pacific coast from Oaxaca, México, to Costa Rica and around the Galapagos Islands

Styracura schmardae (Werner 1904)
in honor of Austrian naturalist and traveler Ludwig K. Schmarda (1819-1908), who collected type
Subfamily Potamotrygoninae

**Heliotrygon** Carvalho & Lovejoy 2011

*Helio*-, sun, referring to distinctively arranged pectoral disc radials that appear to "radiate" outward; *trygon*, Greek for stingray, possibly derived from *tri-*, three and *gonio-*, angle, referring to triangular shape of some stingrays formed by head and pectoral fins

**Heliotrygon gomesi** Carvalho & Lovejoy 2011

in honor of Ulisses L. Gomes, a pioneer in the study of elasmobranch morphology and systematics in Brazil, and an esteemed colleague and collaborator of the first author

**Heliotrygon rosai** Carvalho & Lovejoy 2011

in honor of Ricardo S. Rosa (b. 1954), whose “excellent” 1985 revision of potamotrygonids “represents a landmark in our understanding of the taxonomy and diversity of this family”

**Paratrygon** Duméril 1865

*para-*, near, referring to what was perceived to be a close relationship to the catch-all stingray genus *Trygon* (= *Dasyatis*)

**Paratrygon aiereba** (Müller & Henle 1841)

presumably Brazilian vernacular for an unidentified species of ray; its original pre-Linnaean usage likely referred to a marine species, which the authors applied to this freshwater species

**Plesiotrygon** Rosa, Castello & Thorson 1987

*plesio-*, close; *trygon*, ancient Greek for stingray, i.e., “close to trygon,” referring to its possible phylogenetic position as the most primitive potamotrygonid stingray

**Plesiotrygon iwamae** Rosa, Castello & Thorson 1987

in honor of the late zoologist Satoko Iwama (d. 1987), Instituto de Botânica, São Paulo (Brazil)

**Plesiotrygon nana** Carvalho & Ragno 2011

*nanus*, dwarf, referring to small adult size, probably not surpassing 250 mm disc length or width

**Potamotrygon** Garman 1877

*potamos*, river, referring to fluviatile habitat; *trygon*, Greek for stingray, possibly derived from *tri-*, three and *gonio-*, angle, referring to triangular shape of some stingrays formed by head and pectoral fins

**Potamotrygon adamastor** Fontenelle & Carvalho 2017

named after Adamastor, one of the giants of Greek mythology who opposed Zeus and Thetis and was thereby sent to Earth, acting as a raging storm over the Cape of Storms; the name was chosen because this stingray is a strong and violent fish, with a stinger that can pierce plastic boxes when caught (J. P. Fontenelle, pers. comm.)

**Potamotrygon albimaculata** Carvalho 2016

*albus*, white; *maculata*, spotted, referring to its conspicuous color pattern

**Potamotrygon amandae** Loboda & Carvalho 2013

in memory of Amanda Lucas Gimeno (1984-2006), who was an undergraduate colleague of the senior author (she died from severe head trauma when a balcony collapsed at the State University of Londrina during the first day of the 26th Brazilian Congress of Zoology)

**Potamotrygon amazona** Fontenelle & Carvalho 2017

named after the Amazonas, female warriors of Greek mythology, daughters of the god of war and goddess of harmony; this name was chosen because this stingray is strong, muscular, and covered with armor-like denticles (J. P. Fontenelle, pers. comm.)

**Potamotrygon boesemani** Rosa, Carvalho & Almeida Wanderley 2008

in honor of the late Marinus Boeseman (1916-2006), Leiden University, “who contributed substantially to our knowledge of both South American ichthyology (including chondrichthyans) and zoological history”

**Potamotrygon brachyura** (Günther 1880)

*brachy*, short; *oura*, tail, referring to tail being much shorter than body

**Potamotrygon constellata** (Vaillant 1880)

with star-like spots, referring to stellate-based spines on tail, which appear white on the dark skin and thus look like a “carte sidérale” (sidereal map, or map of stars)

**Potamotrygon falkneri** Castex & Maciel 1963

in honor of British Jesuit Tomas Falkner (1707-1784, also spelled Thomas Falconer), for his apostolic and scientific work in 18th-century Argentina

**Potamotrygon garmani** Fontenelle & Carvalho 2017

in honor of Harvard ichthyologist-herpetologist Samuel Garman (1843-1927), whose works on sharks and rays “remain among the most impressive and important contributions to the field”; he proposed the genus *Potamotrygon*, the family Potamotrygonidae, and described five species of neotropical stingrays (three remain valid)
Potamotrygon henlei (Castelnau 1855)  
patronym not identified but clearly in honor of Friedrich Gustav Jacob Henle (1807-1885), German physician, pathologist and anatomist, who, along with Johann Müller (honored by Castelnau in a preceding description, now a junior synonym of *P. motoro*) produced the first authoritative work on elasmobranch fishes (1839-1841) and published first valid description of *P. motoro* in 1841

Potamotrygon histrix (Müller & Henle 1834)  
porcupine, referring to stellate-based spines on dorsal surface, larger toward the middle and absent from the margins [often spelled *hystrix*, dating to Müller & Henle 1841]

Potamotrygon humerosa Garman 1913  
*humerus*, high portion or apex; -osus, adjectival suffix connoting fullness or abundance, possibly referring to conspicuous dorsal tubercles on dorsal disc of holotype

Potamotrygon jabuti Carvalho 2016  
Portuguese name for this species, from the Portuguese name for common land-dwelling tortoises (Testudinidae) of Brazil, referring to similarity in dorsal color, especially when disc is arched

Potamotrygon leopoldi Castex & Castello 1970  
in honor of King Leopold III (1901–1983) of Belgium, sponsor of scientific studies at Institut Royal des Sciences Naturelles de Belgique

Potamotrygon limai Fontanelle, Silva & Carvalho 2014  
in honor of “highly esteemed” Brazilian ichthyologist José Lima de Figueiredo, known as Zé Lima, who has contributed “immensely” to the development of ichthyology in South America and a “valued mentor and friend” of the authors

Potamotrygon magdalenae (Duméril 1865)  
of Rio de la Magdelena, Colombia, type locality

Potamotrygon marinae Deynat 2006  
in honor of Deynat’s daughter, Marina

Potamotrygon motoro (Müller & Henle 1841)  
indigenous name for this ray in Cuyaba, Brazil (type locality)

Potamotrygon ocellata (Engelhardt 1912)  
having little eyes, referring to numerous red spots (“eye-spots”) with black rings on dorsal surface

Potamotrygon orbignyi (Castelnau 1855)  
in honor of Alcide d’Orbigny (1802-1857), “learned and intrepid traveler” (translation) and naturalist who traveled in South America, collecting thousands of specimens for the Muséum national d’Histoire naturelle (Paris)

Potamotrygon pantanensis Loboda & Carvalho 2013  
-ensis, suffix denoting place: northern Pantanal region (Paraná-Paraguay basin), where it has been exclusively found to date

Potamotrygon rex Carvalho 2016
Latin for king, referring to its large, bulky size and striking color pattern, “king of the rio Tocantins Potamotrygon species”

Potamotrygon schroederi Fernández-Yépez 1958
in honor of William C. Schroeder (1895-1977), Woods Hole Oceanographic Institution, for his contributions to the knowledge of rays

Potamotrygon schuhmacheri Castex 1964
in honor of Castex’ former high-school student and collaborator Roberto Schümacher (1947-1964), who died in an accident

Potamotrygon scobina Garman 1913
rasp, referring to “very small fine closely set stellate-based spines intermixed with larger” spines on disc and upper surface of tail

Potamotrygon signata Garman 1913
mark, referring to light and dark spots on dorsal surface and outer edge of disc

Potamotrygon taitiana Silva & Carvalho 2011
in honor of Tatiana Raso de Moraes Possato, “a late student of biology [who] was an enthusiastic researcher of chondrichthysans, in particular potamotrygonids”

Potamotrygon tigrina Carvalho, Sabaj Perez & Lovejoy 2011
tiger-like, referring to conspicuous dorsal disc color and vertically striped color pattern on distal tail region

Potamotrygon wallacei Carvalho, Rosa & Araújo 2016
in honor of Alfred Russel Wallace (1823-1913), the first naturalist to collect, observe and illustrate this species while on his travels in the Rio Negro in the early 1830s

Potamotrygon yepezi Castex & Castello 1970
in honor of Agustín Fernández Yépez (1916-1977), for his contributions to Venezuelan ichthyology

Family **GYMNURIDAE** Butterfly Rays
1 genus · 13 species

Gymnura van Hasselt 1823
*gymno*, bare; *oura*, tail, allusion not evident, possibly referring to lack of dorsal fin and serrated spines on tail of *G. micrura*

Gymnura altavela (Linnaeus 1758)
meaning unknown, perhaps *alta*, high; *velifer*, bearing a sail, referring to broad sail-like body formed by fused pectoral fins

Gymnura australis (Ramsay & Ogilby 1886)
southern, described as an Australian form of *G. altavela*

**Gymnura crebrripunctata** (Peters 1869)
creber, numerous; punctatus, spotted, referring to closely arranged black dots on dorsal surface and small yellow spots on front edge of disc

**Gymnura hirundo** (Lowe 1843)
swallow, referring to bird-like wingspan formed by fused pectoral fins

**Gymnura japonica** (Temminck & Schlegel 1850)
Japanese (described from Nagasaki Bay, Japan, but occurs throughout northwestern and western Pacific)

**Gymnura lessae** Yokota & Carvalho 2017
in honor of Rosângela Lessa, a valued mentor and friend of the first author, and a “highly esteemed Brazilian researcher who has been struggling valiantly for the conservation of sharks and rays in Brazil, and has contributed significantly to the knowledge of this group”

**Gymnura marmorata** (Cooper 1864)
marbled, referring to finely mottled color pattern, with darker mottings forming reticulations around pale roundish spots

**Gymnura micrura** (Bloch & Schneider 1801)
micro, short; oura, tail, referring to slender, short tail (about ¼ disc width)

**Gymnura natalensis** (Gilchrist & Thompson 1911)
-ensis, suffix denoting place: Cape Natal, South Africa, type locality

**Gymnura poecilura** (Shaw 1804)
poecilio-, varicolored; oura, tail, referring to black and white circles or rings on tail

**Gymnura sereti** Yokota & Carvalho 2017
in honor of Bernard Séret, for his important contributions to the systematics of elasmobranchs and to our knowledge of West African fishes; he has contributed substantially to the collections of the American Museum of Natural History, including thousands of specimens from West Africa, and is an esteemed friend of the second author

**Gymnura tentaculata** (Valenciennes 1841)
tentacled, referring to a tentacle behind each spiracle (authorship often attributed to Müller & Henle, who published Valenciennes’ description)

**Gymnura zonura** (Bleeker 1852)
 zona, belt or girdle; oura, tail, referring to 8-10 white rings on tail behind dorsal

### Family UROTRYGONIDAE Round Rays
2 genera · 17 species

**Urobatis** Garman 1913
oura, tail, possibly referring to blunt tail, “about as long as the body”; batiz, ancient Greek for a flat fish, usually applied to a skate or ray

**Urobatis concentricus** Osburn & Nichols 1916
referring to rounded pale spots on disc, which are “arranged more or less definitely in 3 concentric circles around a central one in the middle of the disc”

**Urobatis halleri** (Cooper 1863)
in honor of George Morris Haller (1851-1889), then the 12-year-old son of Major Granville O. Haller (1819-1897), who “was wounded on the foot, probably by one of these fish, while wading along a muddy shore” of San Diego bay

**Urobatis jamaicensis** (Cuvier 1816)
-ensis, suffix denoting place: Jamaica, type locality (now known to occur in tropical coastal waters from North Carolina, USA, to northern South America)

**Urobatis maculatus** Garman 1913
spotted, referring to small black and large brown spots

**Urobatis marmoratus** (Philippi 1892)
marbled, referring to distinctive color pattern, consisting of numerous small white spots on a dark background

**Urobatis pardalis** Moral-Flores, Angulo, López & Bussing 2015
like a leopard, referring to dorsal color pattern (brown background with orange shades and white or pale vermiculations, sometimes merging to form spots or ocelli)

**Urobatis tumbesensis** (Chirichigno F. & McEachran 1979)
-ensis, suffix denoting place: Tumbes, Peru, type locality

**Urotrygon** Gill 1863
oura, tail, possibly referring to “longer tail” of *U. munda* compared to those of *Urolophus*; trygon, ancient Greek for sting-
ray, possibly derived from tri-, three and gonio-, angle, referring to triangular shape of some stingrays formed by head and pectoral fins

_Urotrygon aspidura_ (Jordan & Gilbert 1882)

*aspido-*; shield; _oura_, tail, referring to 2-8 strong, broad-rooted spines on tail

_Urotrygon chilensis_ (Günther 1872)

-ensis, suffix denoting place: Chile, type locality (but occurs in Eastern Pacific from Chile north to Gulf of California)

_Urotrygon cimar_ López S. & Bussing 1998

abbreviation for Centro de Investigación en Ciencias del Mar y Limnología, a research center of the Universidad de Costa Rica (where both authors work) in honor of its 20th anniversary

_Urotrygon microphthalmum_ Delsman 1941

micro-; small; _ophthalmus_, eye, noticeably minute, much smaller than spiracle

_Urotrygon munda_ Gill 1863

nice, clean or neat, allusion not explained nor evident

_Urotrygon nana_ Miyake & McEachran 1988

_nana_; dwarf, referring to small adult size, 245-250 mm TL

_Urotrygon reticulata_ Miyake & McEachran 1988

reticulated, referring to fine tan to brownish vermiculations on dorsal surface

_Urotrygon rogersi_ (Jordan & Starks 1895)

in honor of George Warren Rogers, “a scholarly physician,” who assisted the authors from his home in Mazatlán, Sinaloa, México (type locality)

_Urotrygon simulatrix_ Miyake & McEachran 1988

copy or imitation, referring to resemblance to _U. munda_ in squamation and _U. chilensis_ in morphometric characters

_Urotrygon venezuelae_ Schultz 1949

of the Western Atlantic of Venezuela, type locality and only known distribution

Family **AETOBATIDAE** Pelagic Eagle Rays

_Aetobatus_ Blainville 1816

_аëtos_, eagle, referring to eagle-like wingspan formed by fused pectoral fins; _batis_, ancient Greek for a flat fish, usually applied to a skate or ray

_Aetobatus flagellum_ (Bloch & Schneider 1801)

whip, referring to long whip-like tail

_Aetobatus laticeps_ Gill 1865

_latus_, wide; _ceps_, head, referring to “rather broad” head, which “nearly equals the distance from the snout to the division between the nasal lobes”

_Aetobatus narinari_ (Euphrasen 1790)

Brazilian name for this ray

_Aetobatus narutobiei_ White, Yamaguchi & Furumitsu 2013

_Naru tobi-ii_ (pronounced “nar-oo tobee-ay”), common name for this species in Japanese waters where it is particularly common; _Naru_ refers to Naru Island, where the species was first recorded in Japan, and _tobi-ii_ is Japanese name used for eagle rays, which translates to black kite (a bird), referring to bird-like wingspan formed by fused pectoral fins

_Aetobatus ocellatus_ (Kuhl 1823)

marked with spots, referring to many scattered, whitish spots on dorsal surface

Family **MYLIOBATIDAE** Eagle Rays

2 genera - 18 species

_Aetomyraeus_ Garman 1908

combination of _Aetobatus_ (Aetobatidae) and _Myliobatis_, referring to similarity of body and fins between the two genera

_Aetomyraeus asperrimus_ (Waite 1909)

very rough, referring to upper surface of head and body covered with minute, usually stellate prickles

_Aetomyraeus bovinus_ (Geoffroy St. Hilaire 1817)

bull, allusion not evident, perhaps referring to large, prominent head

_Aetomyraeus caeruleofasciatus_ White, Last & Baje 2015

caeruleus_, blue; _fuscatus_, banded, referring to 7-8 transverse pale blue bands on dorsal surface, a trait it shares with its
closest congener, *A. nichofii*

*Aetomylaeus maculatus* (Gray 1834)
spotted, referring to dark-edged, whitish, roundish spots on dorsal surface

*Aetomylaeus milvus* (Valenciennes 1841)
kite (bird) or hawk, referring to bird-like wingspan formed by fused pectoral fins (authorship often attributed to Müller & Henle, who published Valenciennes’ description)

*Aetomylaeus nichofii* (Bloch & Schneider 1801)
apparent misspelling of *nieuhofii*, in honor of Johan Nieuhof (1618-1672), Dutch East India Company, whose illustration of this ray was copied by Francis Willughby in 1686, from which Bloch & Schneider’s description was based

*Aetomylaeus vesperfilio* (Bleeker 1852)
bat, possibly referring to bat-like wingspan formed by fused pectoral fins

*Myliobatis* Cuvier 1816
*mylios*, grinder, referring to wide, flat teeth, connected together like stones in a pavement; *batis*, ancient Greek for a flat fish, usually applied to a skate or ray

*Myliobatis aquila* (Linnaeus 1758)
eagle, referring to broad eagle-like wingspan formed by fused pectoral fins

*Myliobatis californica* Gill 1865
*ica*, belonging to: California (Tomas Bay), type locality

*Myliobatis chilensis* Philippi 1892
*ensis*, suffix denoting place: Chile (Quinteros), type locality

*Myliobatis hamlyni* Ogilby 1911
patronym not identified, probably in honor of French naturalist Chrétien Paulin de Fréminville (1787-1848)

*Myliobatis goodei* Garman 1885
in honor of ichthyologist George Brown Goode (1851-1896), Assistant Secretary, Smithsonian Institution

*Myliobatis longirostris* Applegate & Fitch 1964
*longus*, long; *rostris*, snout, referring to long, pointed snout, about 12% width of disc compared to 8% in *M. californica*

*Myliobatis peruvianus* Garman 1913
*anus*, belonging to: Callao, Peru, type locality

*Myliobatis ridens* Ruocco, Lucifora, Díaz de Astarloa, Mabragaña & Delpiani 2012
laughing or smiling, referring to “peculiar countenance” caused by corners and width of mouth that resembles a smile

*Myliobatis tenuicaudatus* Hector 1877
*tennis*, thin; *caudatus*, tailed, referring to “very slender” tail

*Myliobatis tobijei* Bleeker 1854
*tobi*, black kite (a bird), Japanese name for this species, referring to bird-like wingspan formed by fused pectoral fins; *jej*, Japanese for skate or ray

**Family RHINOPTERIDAE** Cownose Rays

1 genus · 8 species

*Rhinoptera* Cuvier 1829
*rhino-*, nose; *ptera*, fin, referring to pair of distinctive lobes (similar to a cow’s nose) on subrostral fin

*Rhinoptera bonasus* (Mitchill 1815)
bison, referring to how the bilobed nose resembles that of an ox

*Rhinoptera brasiliensis* Müller 1836
*ensis*, suffix denoting place: Brazil, type locality (but occurs throughout western Atlantic from North Carolina, USA, to Brazil, southwestern Gulf of Mexico, and Caribbean coast of Colombia)

*Rhinoptera javanica* Müller & Henle 1841
*ica*, belonging to: from Java, Indonesia, type locality (but occurs throughout Indo-West Pacific)

*Rhinoptera jayakari* Bouleneger 1895
in honor of Atlaram Sadashiva Grandin Jayakar (1844-1911), surgeon, Indian Medical Service, and collector of natural history, who presented type to the British Museum
**Rhinoptera marginata** (Geoffroy St. Hilaire 1817)
bordered, allusion not evident, perhaps referring to dark margin around white ventral surface

**Rhinoptera neglecta** Ogilby 1912
neglected, referring to type specimen (now lost) being in “such wretched condition as to preclude a more detailed description”

**Rhinoptera peli** Bleeker 1863
in honor of H.S. Pel, former head of the Dutch government of Cote de Guinée, whose “enlightened zeal” (translation) led to the deposition of natural history specimens at the Leyden Museum, including type of this species

**Rhinoptera steindachneri** Evermann & Jenkins 1891
in honor of Franz Steindachner (1834-1919), for his “valuable services to American ichthyology”

**Family MOBULIDAE** Devilrays
2 genera · 8 species

**Manta** Bancroft 1829
Spanish for blanket, reportedly a name used by pearl divers between Panama and Guayaquil to designate an enormous fish they feared could devour them after enveloping them in its vast “wings”; however, some early accounts give the name as *manatia*, which may be an indigenous name later abridged to *manta*

**Manta alfredi** (Krefft 1868)
in honor of Prince Alfred, Duke of Edinburgh (1844-1900), who was visiting Sydney at the time this “royal fish” was caught and posed for photographs with it

**Manta birostris** (Walbaum 1792)
*bri*-two; *rostrum*, snout, referring to two hornlike flaps (cephalic fins)

**Mobula** Rafinesque 1810
likely based on *Raia mobular*; which Rafinesque unnecessarily replaced with *Mobula auriculata* [for etymology, see *Mobula mobular*, below]

**Mobula hypostoma** (Bancroft 1831)
hypo-—below; *stoma*, mouth, referring to ventral mouth (a major diagnostic feature of *Mobula*)

**Mobula kuhlii** (Valenciennes 1841)
in honor of Heinrich Kuhl (1797-1821), who died while collecting fauna and flora in Java; his collections, drawings and manuscripts provided material for Valenciennes and other naturalists (authorship often attributed to Müller & Henle, who published Valenciennes’ description)

**Mobula mobular** (Bonnaterre 1788)
of uncertain origin but three explanations have been proffered: 1) derived from *mobilis*, mobile, referring to migratory habits; 2) since Rafinesque (1810) mentioned an Italian vernacular, *Tavila cornuta* (“horned table”), perhaps an allusion to what some Romance languages refer to as “moveables” or nonfixed furnishings, therefore comparing the ray to a large piece of furniture (e.g., table) that moves; 3) a name locally used in the Azores Islands

**Mobula munkiana** Notarbartolo-di-Sciara 1987
*ana*, belonging to: Walter H. Munk (b. 1917), Scripps Institution of Oceanography, “oceanographer extraordinary [sic], and friend”

**Mobula tarapacana** (Philippi 1892)
*ana*, belonging to: 12 miles west of Iquique, Tarapacà Province, Chile, to type locality

**Mobula thurstoni** (Lloyd 1908)
in honor of Edgar Thurston (1855-1935), superintendent of the Government Museum, Madras, India, who provided Lloyd the opportunity to examine specimens from the museum’s collection