

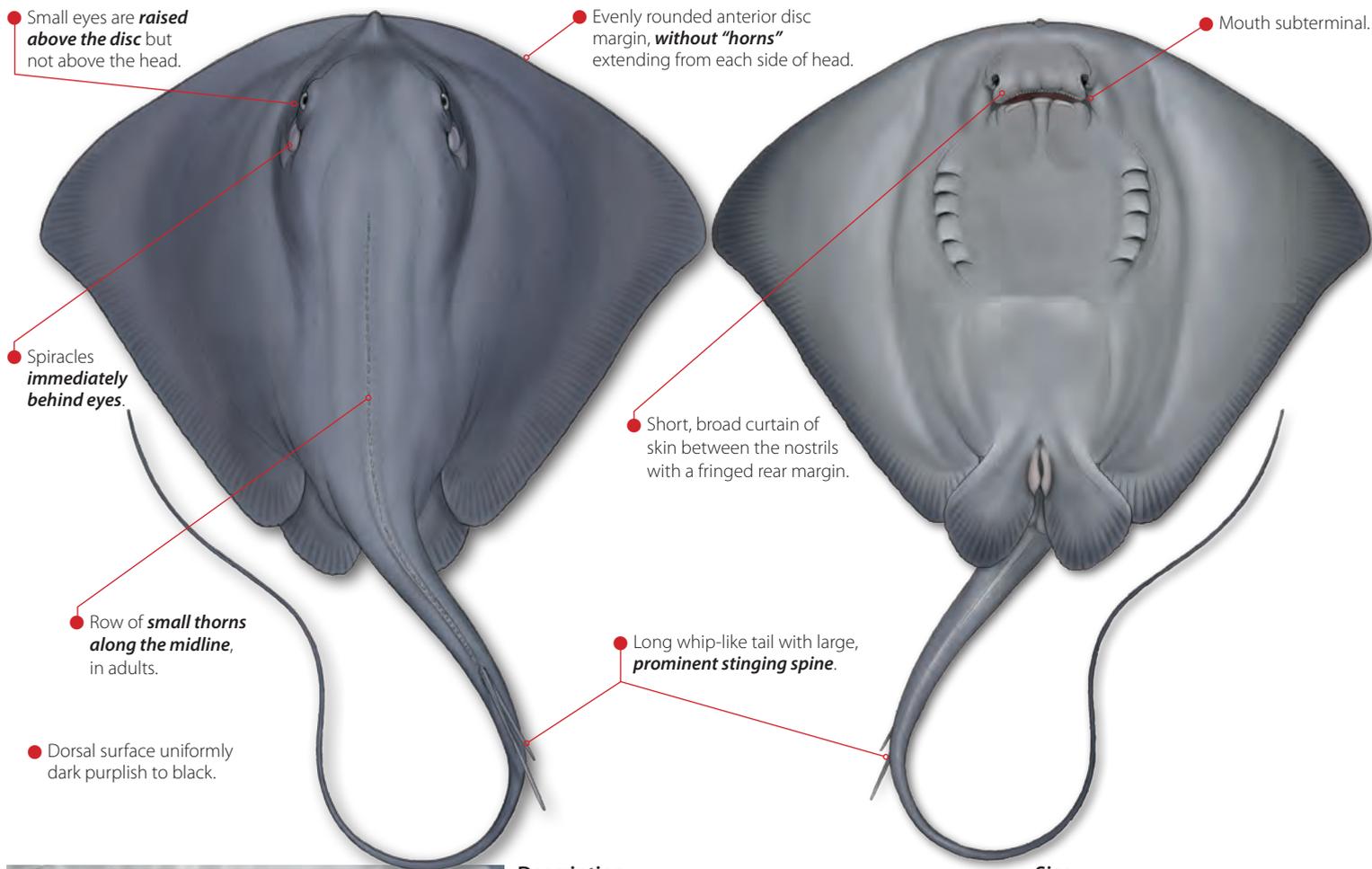
Pteroplatytrygon violacea

(Bonaparte, 1832)

Pelagic Stingray

Pastenague violette

LC LL



Ventral view. © NOAA Fisheries

Description

A medium-sized stingray with an evenly rounded anterior disc margin, a broad snout, angular pectoral fin "wing-tips" and a long whip-like tail with a very long, prominent stinging spine.

Colour

Dorsal surface a uniform dark purple to black without any patterns of blotches or spots; ventral surface also uniformly coloured, but usually slightly lighter than dorsal surface.

Size

Males mature: 35–40cm DW.
Females mature: 45–50cm DW.
Maximum size: 80cm DW.
Birth size: about 15–20cm DW.



SIMILAR SPECIES

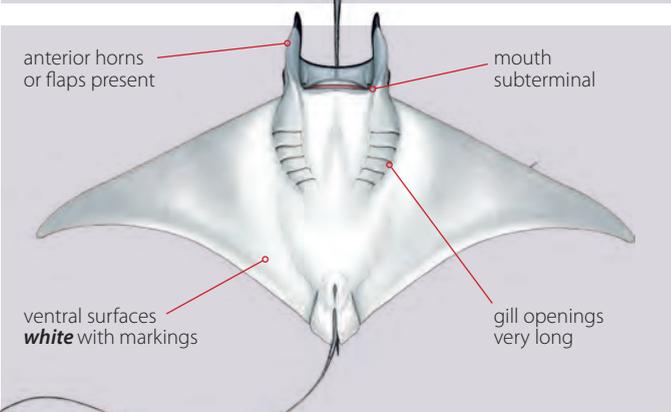
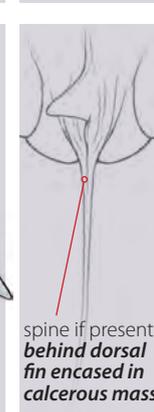
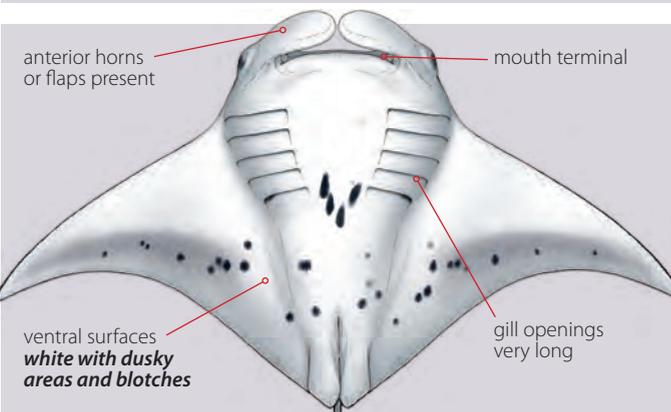
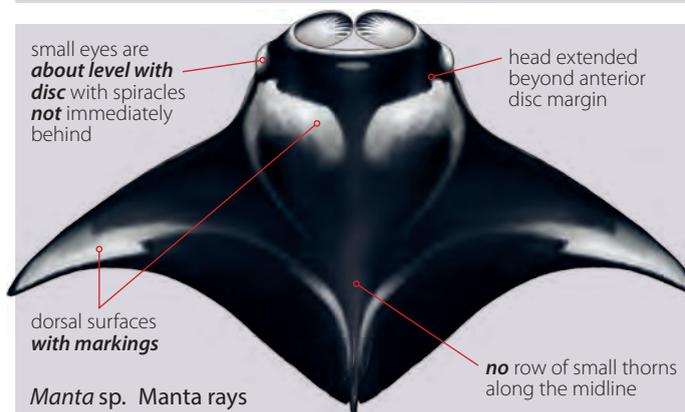
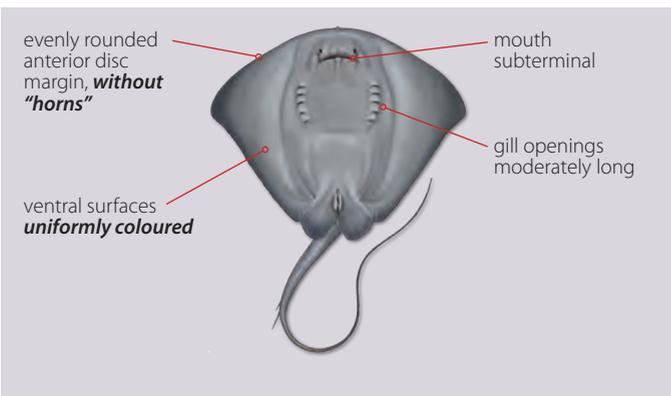
A stingray with a broadly rounded anterior disc margin, no 'horns'; a ventral mouth and an angular disc with a tail nearly twice the length of the disc length; a long, prominent stinging spine. Dark uniformly coloured purplish to

blackish with no distinctive patterns; ventral surface also uniformly coloured, but lighter than dorsal surface.

Dorsal colour, eye and spiracle positions, head and wing shape

Ventral colour and mouth

Tail



Manta alfredi

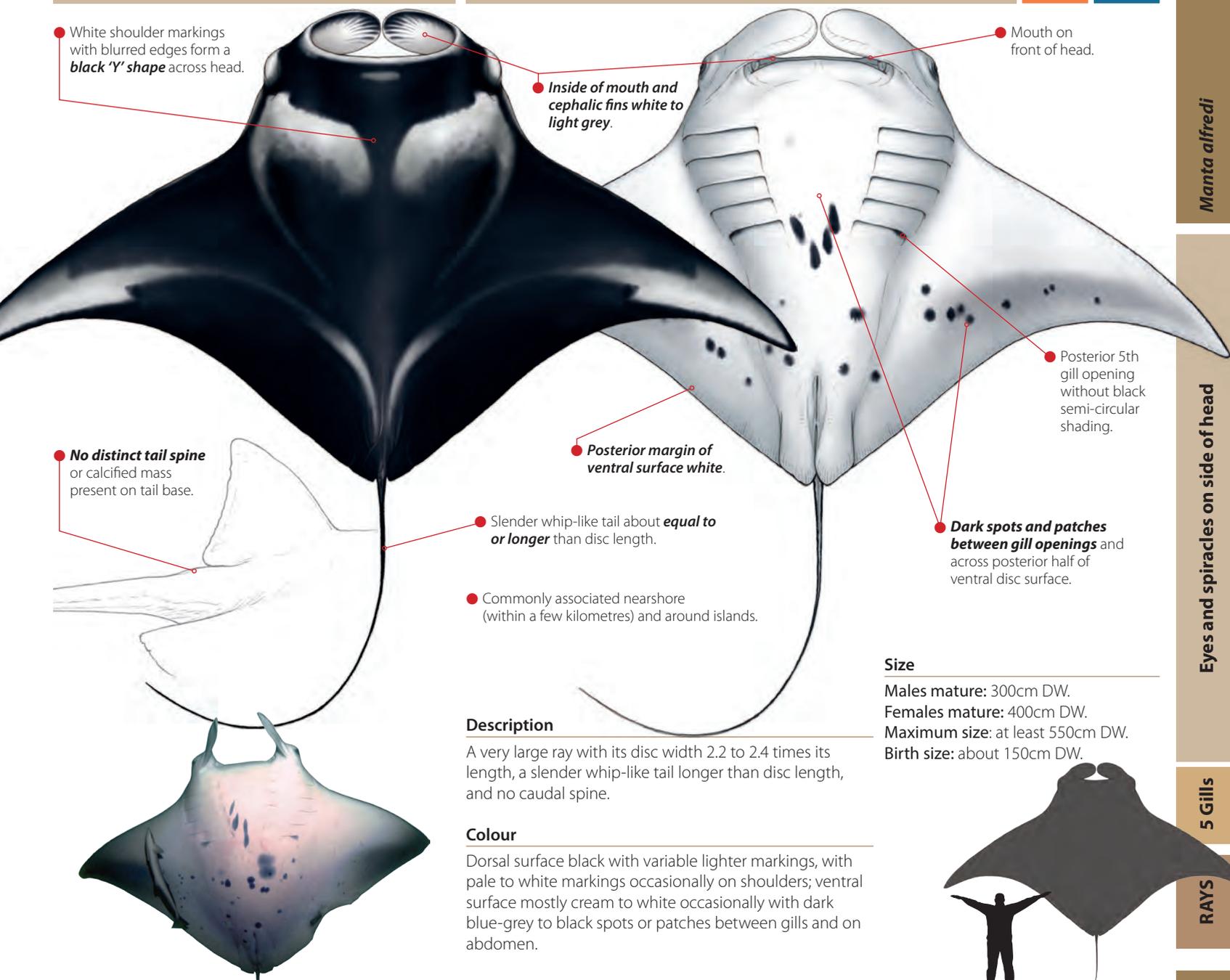
(Anonymous [Kreff], 1868)

Reef Manta Ray

Local names

V

LL



Manta alfredi

Eyes and spiracles on side of head

5 Gills

RAYS

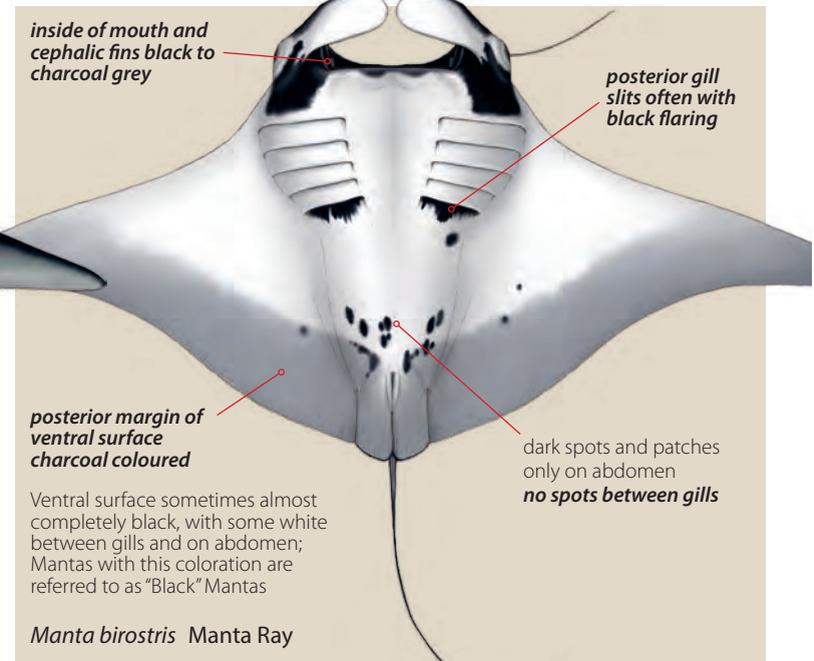
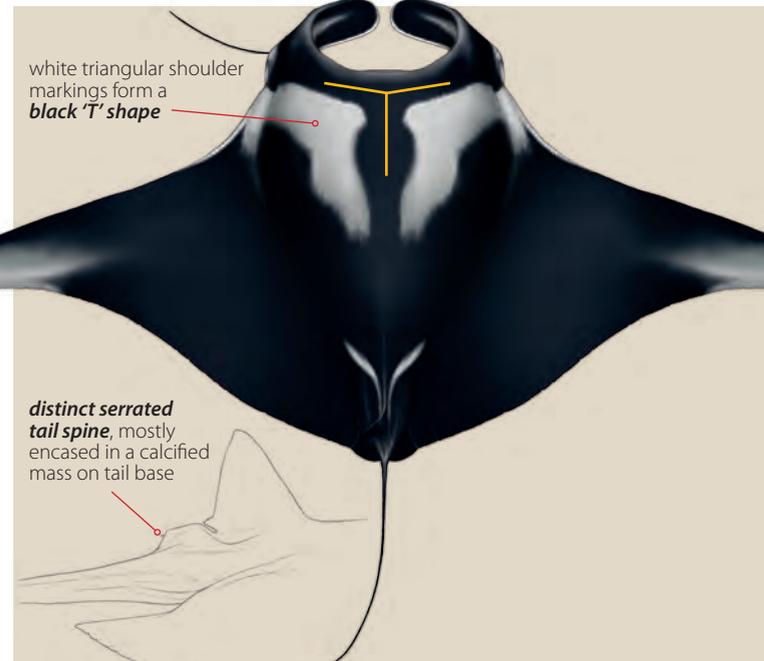
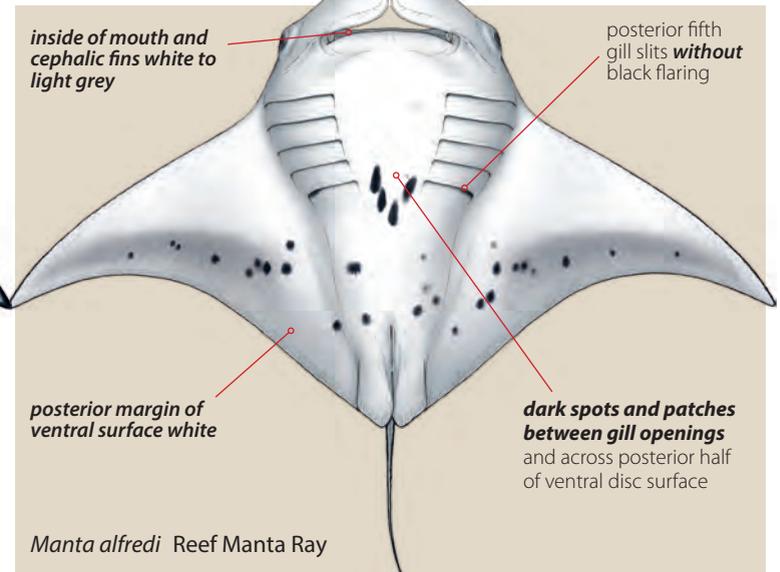
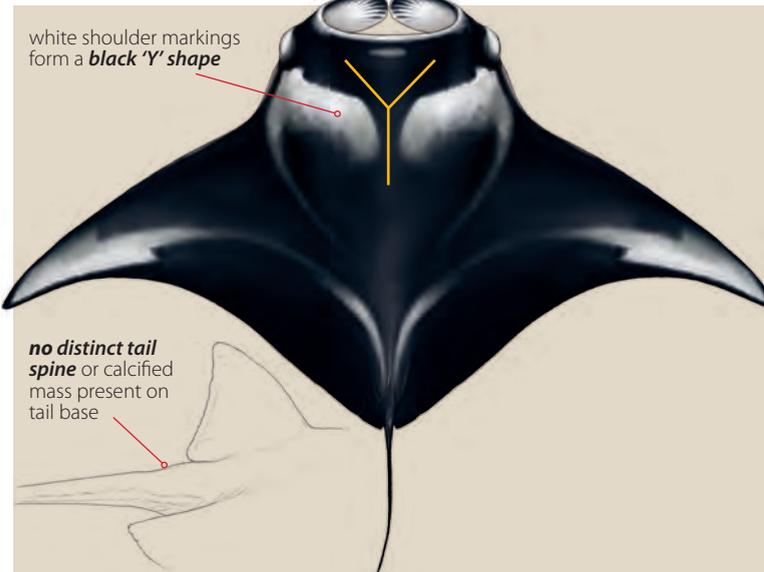
SIMILAR SPECIES

Shoulder patches less distinct, more variable, some with white nearly across dorsal surface while others are completely black; shoulder patch may fade posteriorly forming a "Y" shaped pattern on head and down midback; no dorsal

fin spine or calcified mass at tail base. Ventral surface with spots between gills and across trailing edge of disc; fifth gill opening without darker posterior edge.

Dorsal patternation, tail spine and tail length

Ventral patternation



Manta birostris

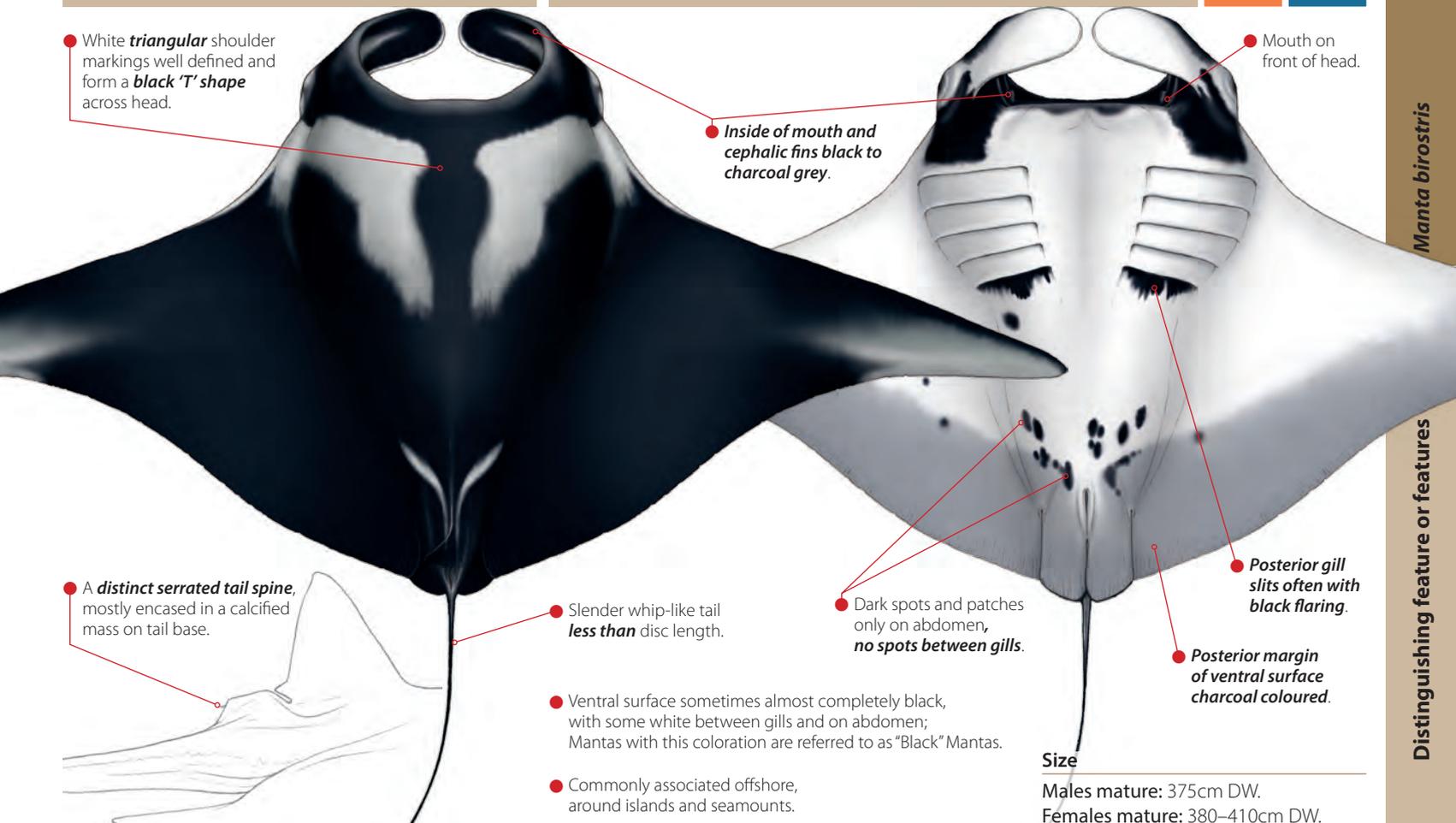
(Walbaum 1792)

Manta Ray

Local names

V

LL

**Description**

A very large ray, to over 700cm disc width, disc width more than 2.2 times length, a short whip-like tail less than disc length, a reduced caudal spine.

Colour

Dorsal surface black to dark brown, with variable light and dark markings, conspicuous white shoulder patches on gill region; shoulder patches are roughly triangular in shape; ventral surface mostly creamy to white with dark grey to black spots and patches mostly on the abdomen region, but not between the gills; charcoal grey coloured V-shaped margins occur along the posterior edges of disc.

Size

Males mature: 375cm DW.

Females mature: 380–410cm DW.

Maximum size: at least 700cm DW.

Birth size: . about 120–150cm DW.



© Daniel Fernando, Manta Trust



Manta birostris

Distinguishing feature or features

5 Gills

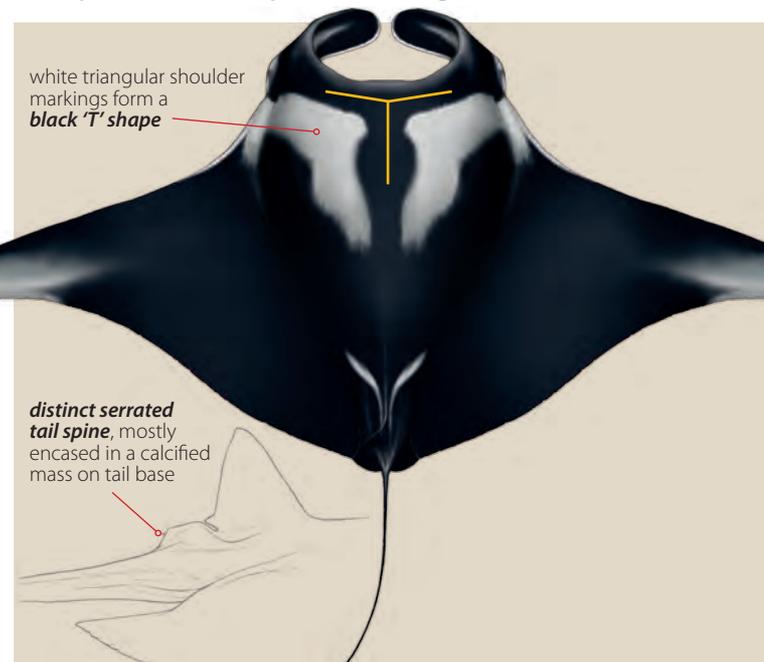
RAYS

99

SIMILAR SPECIES

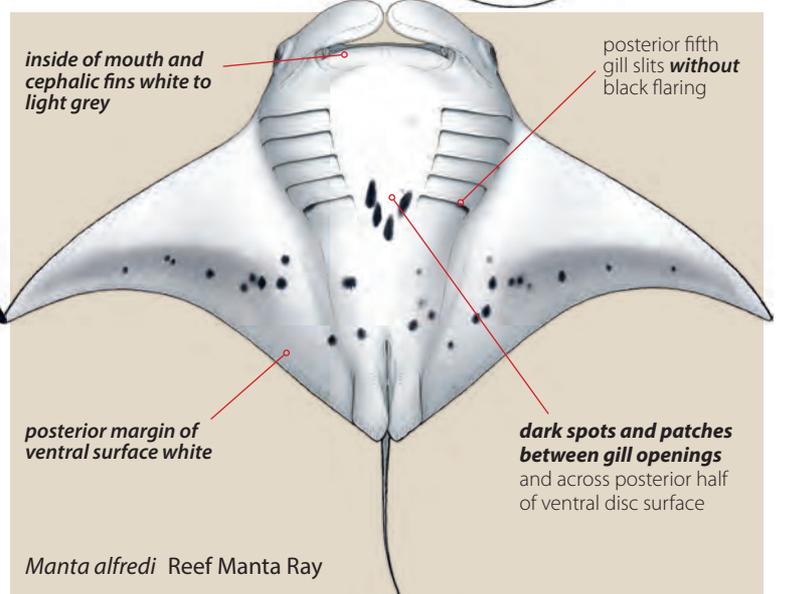
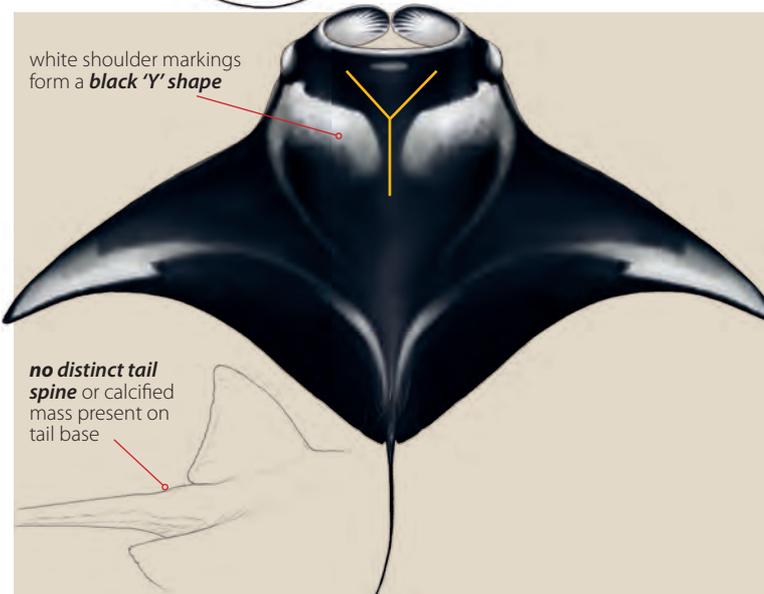
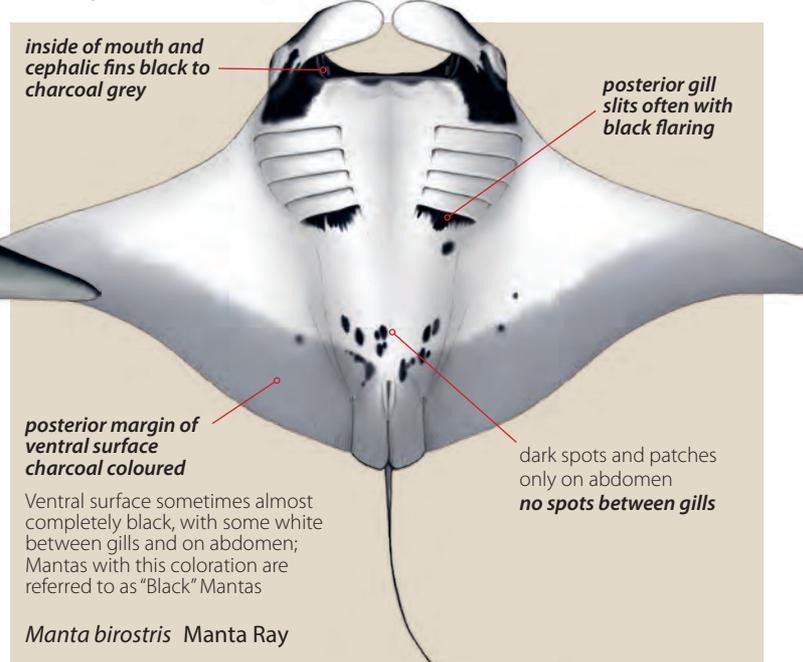
Shoulder patches very distinct "T" shaped with inner anterior margin hooking posteriorly; a small, but distinct serrated tail spine mostly encased in knob-like calcified mass on tail base. Ventral surface with posterior edge of disc shaded

Dorsal patternation, tail spine and tail length



charcoal colour, posterior edge of 5th gill opening with black shading, and ventral surface of lower abdomen clustered with spots; ventral surface of some individuals mostly black.

Ventral patternation



Mobula eregoodootenkee

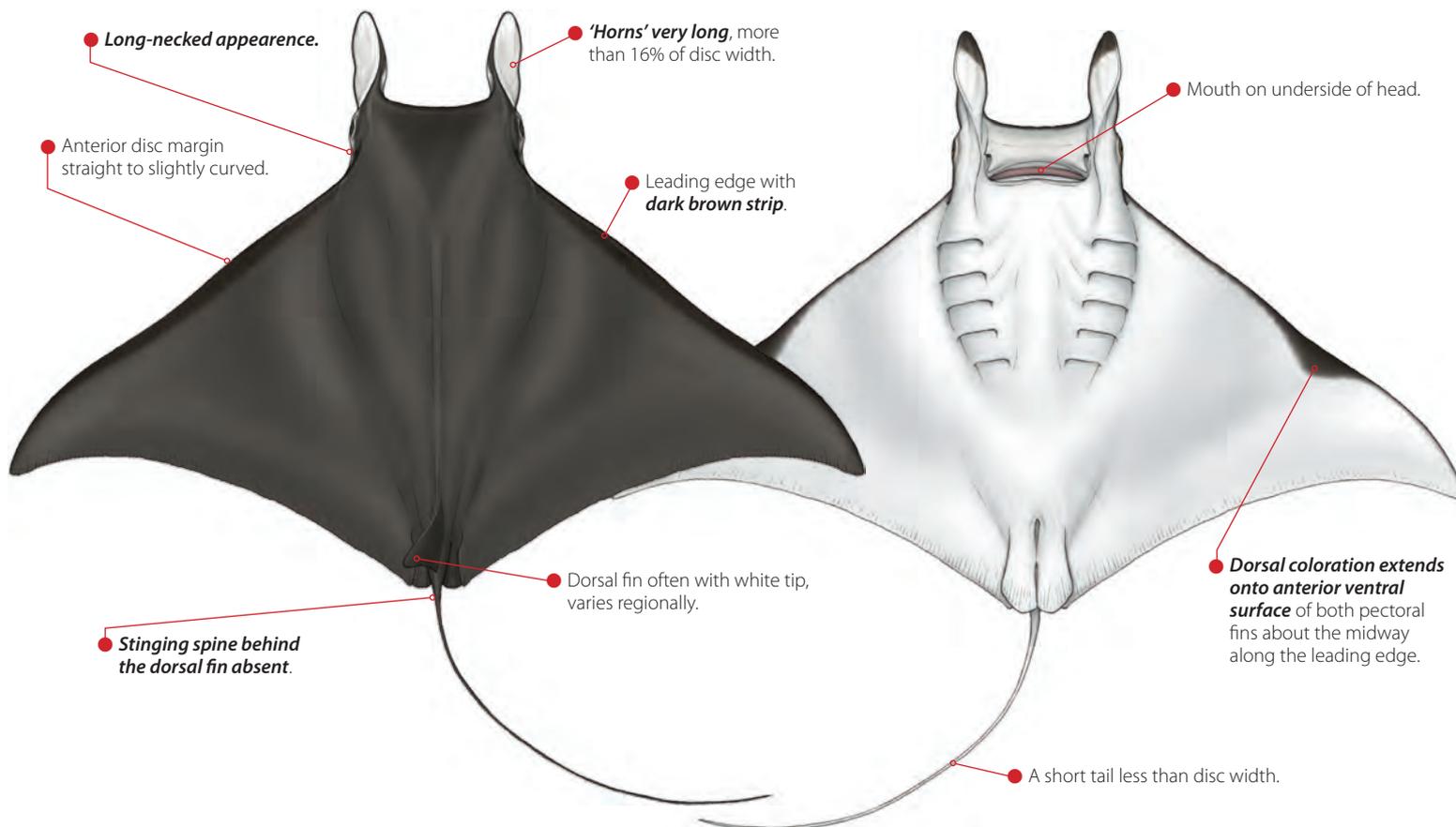
(Bleeker, 1859)

Longhorned Mobula (or Pygmy Devilray)

Local names

NT

LL

**Description**

A small devilray with a long head and long, prominent 'horns'; disc broad, but with short length; without a dorsal fin spine; dorsal fin tip may or may not be white; tail length less than disc width.

Colour

Dorsal surface uniformly greyish-brown, dorsal fin tip may or may not be white, varies regionally; ventral surface white with dark anterior pectoral fin margins.

Size

Males mature: less than 100cm DW.
Females mature: less than 100cm DW.
Maximum size: about 100 cm DW.
Birth size: uncertain.

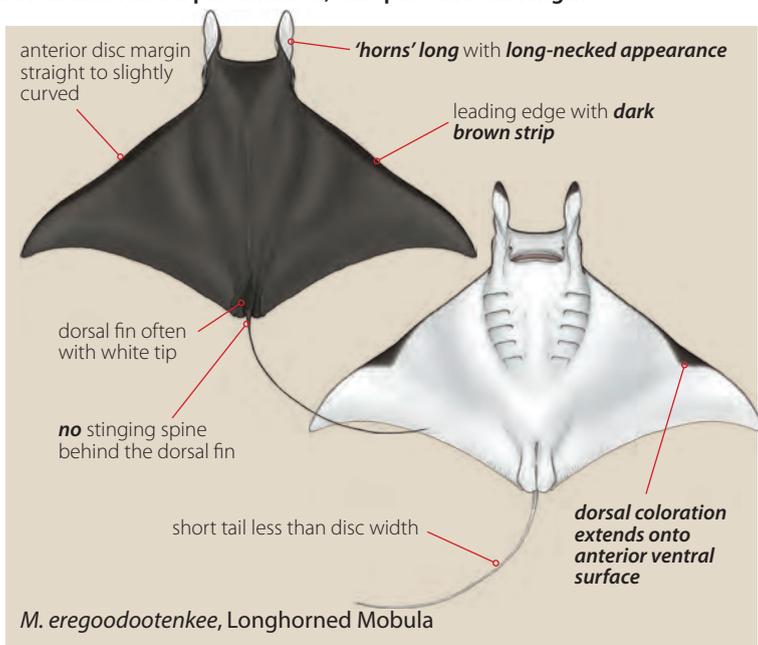


SIMILAR SPECIES

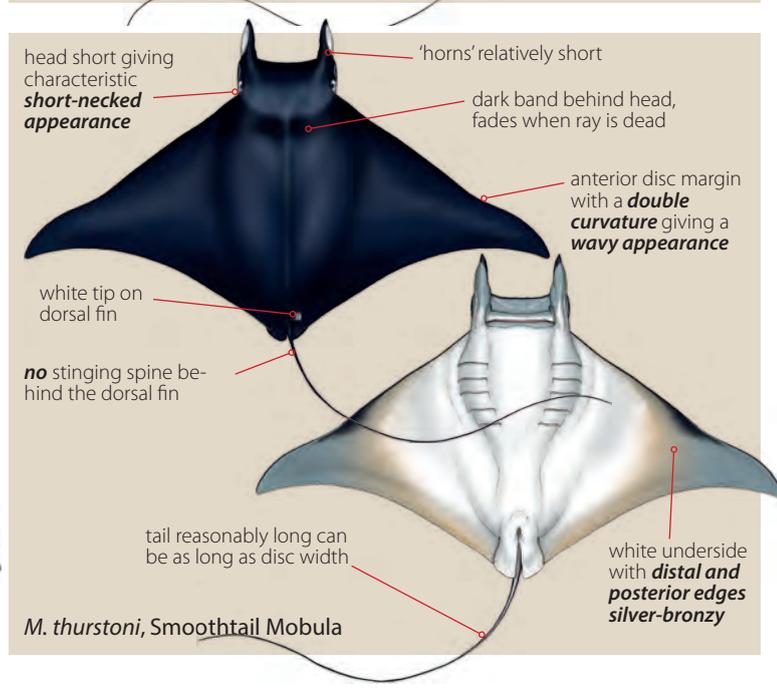
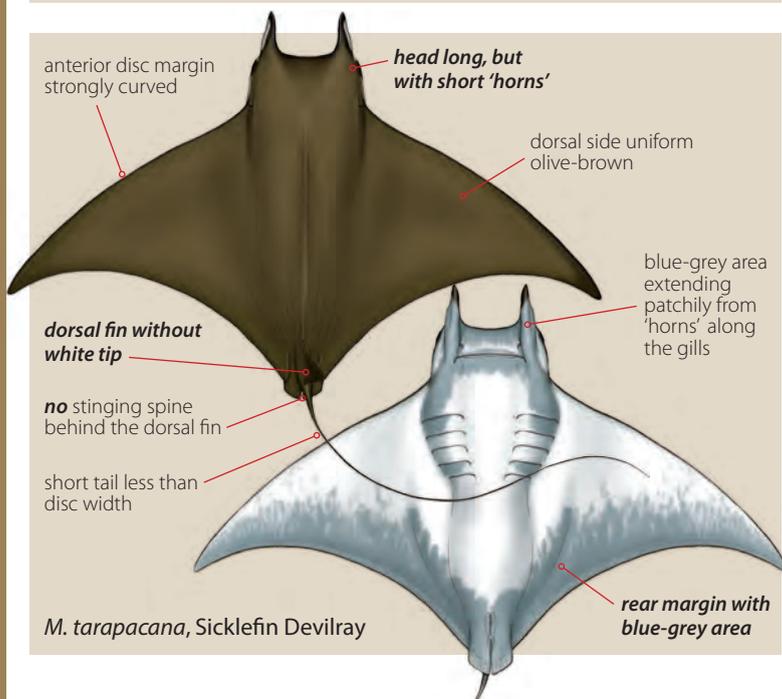
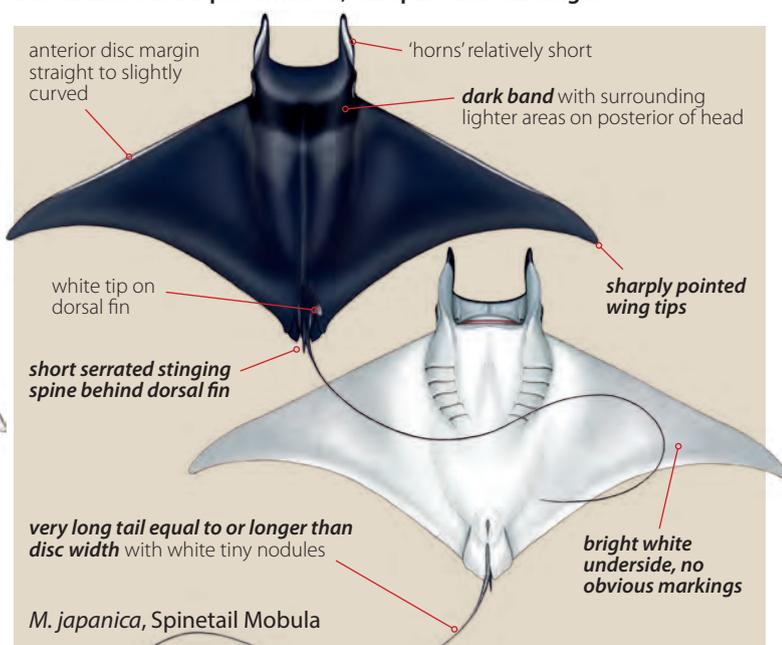
A small, long-necked mobulid with very long prominent 'horns' and no stinging spine. Dorsal surface colour is a uniform grey-brown, with dorsal fin tip with or

without white tip. Ventral surface white except for dorsal coloration extending onto anterior edge of disc.

Dorsal and ventral patternation, tail spine and tail length



Dorsal and ventral patternation, tail spine and tail length



Mobula japonica

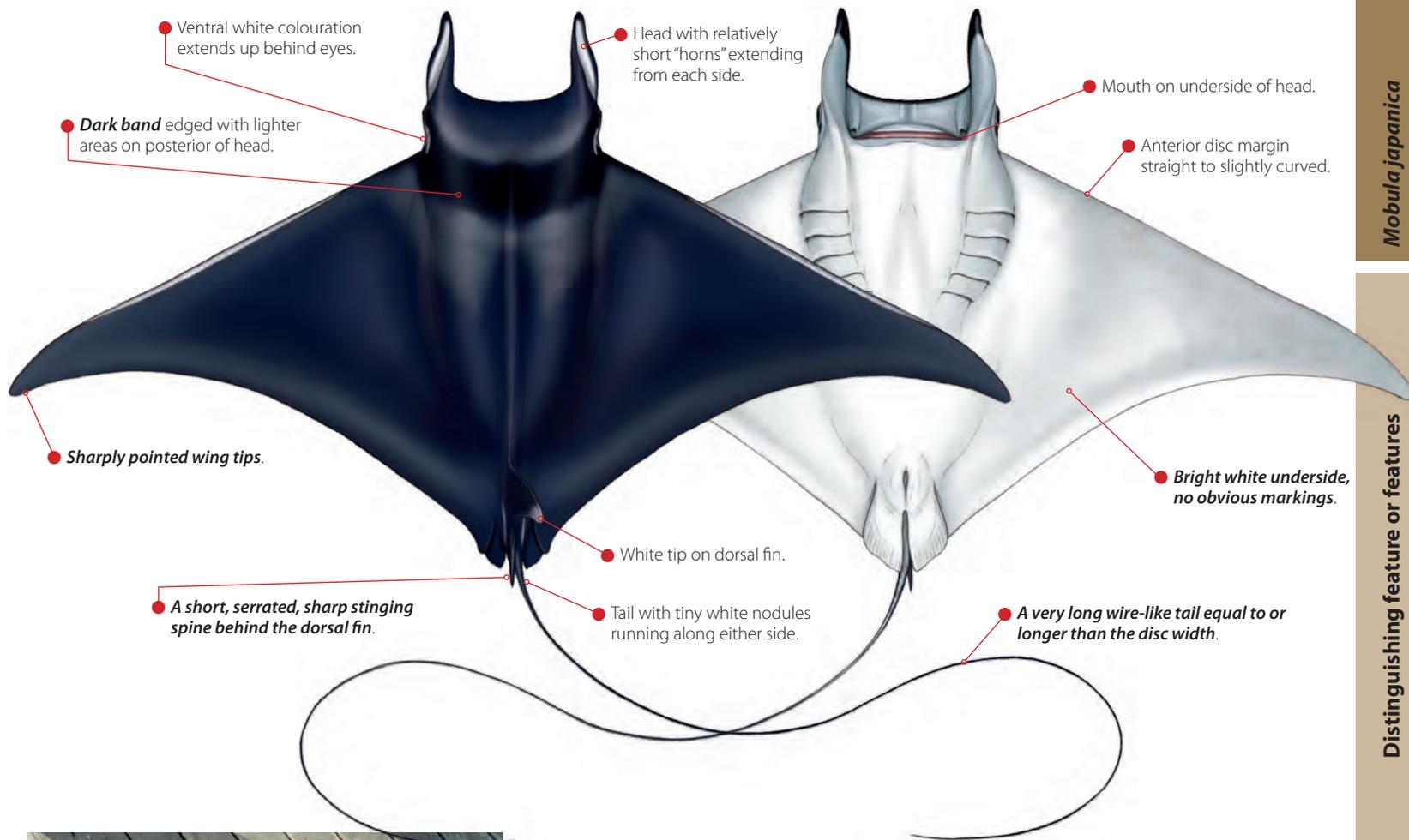
(Muller & Henle, 1841)

Spinetail Mobula (or Japanese Devilray)

Local names

NT

LL



Description

A medium-sized devil ray with a short head and "horns", a very long wiry tail about equal to or longer than the disc width, and a short stinging spine.

Colour

Dorsal surface a bright blue to black, white ventrally on juveniles, but with dark dotted blotches in adults. Dorsal fin with a prominent white tip.

Size

Males mature: about 200–210cm DW.
 Females mature: about 200–210cm DW.
 Maximum size: 310cm DW.
 Birth size: about 85–95cm DW.



Mobula japonica

Distinguishing feature or features

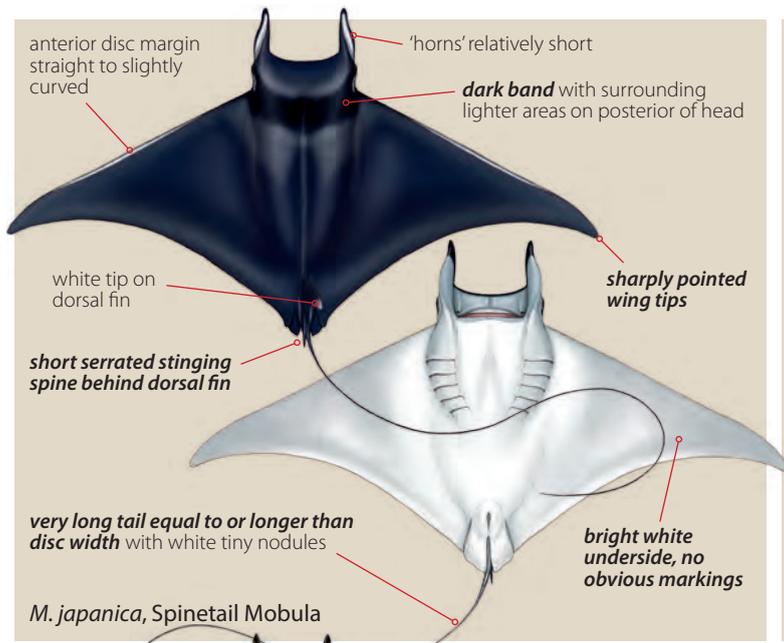
5 Gills

RAYS

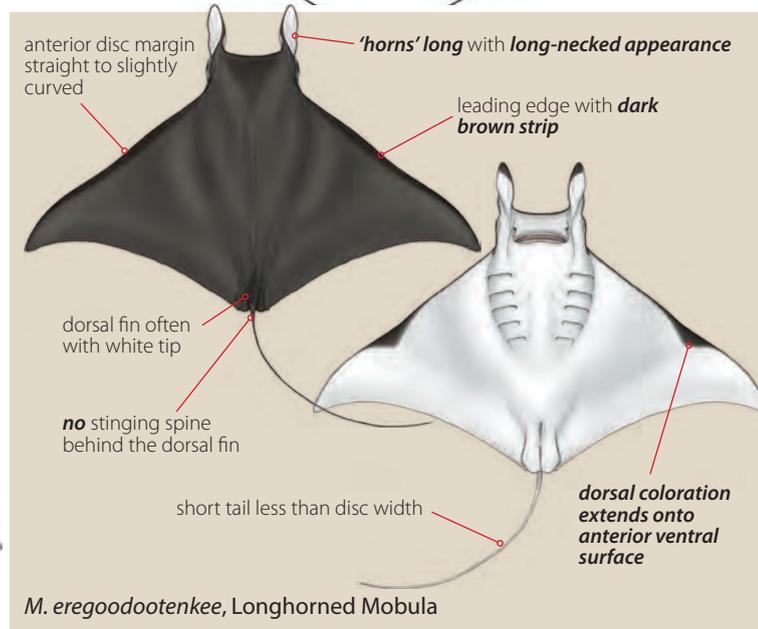
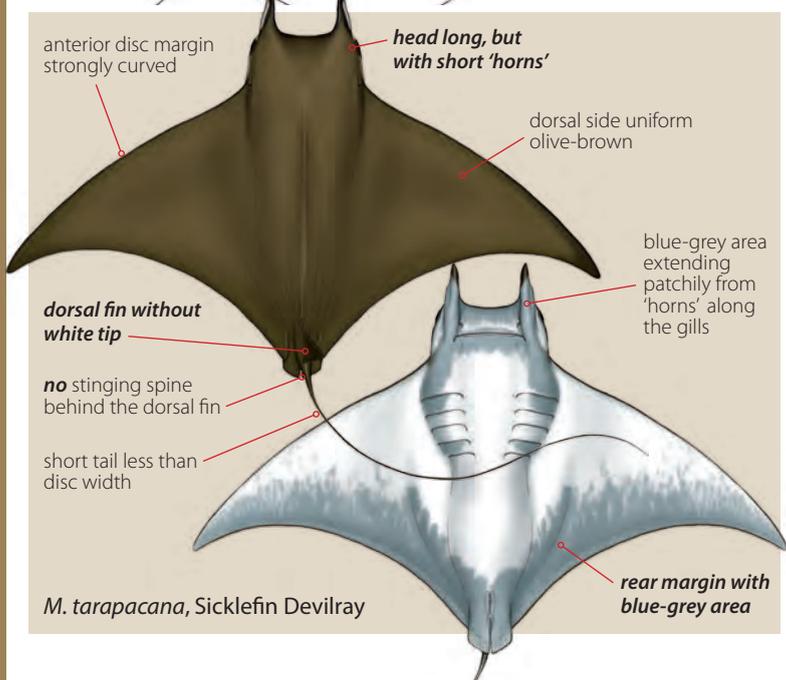
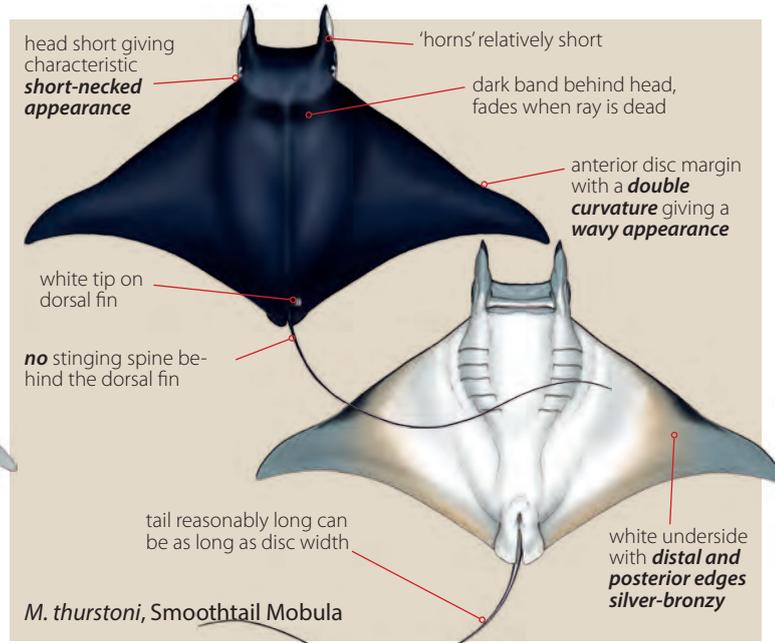
SIMILAR SPECIES

A relatively large mobulid, up to 310 cm disc width, with a short head and horns, a short stinging spine, a dorsal fin mostly with a white tip, and a long wiry tail with prominent white lateral denticles (bumps). Dorsal surface a dark

Dorsal and ventral patternation, tail spine and tail length



Dorsal and ventral patternation, tail spine and tail length



Mobula tarapacana

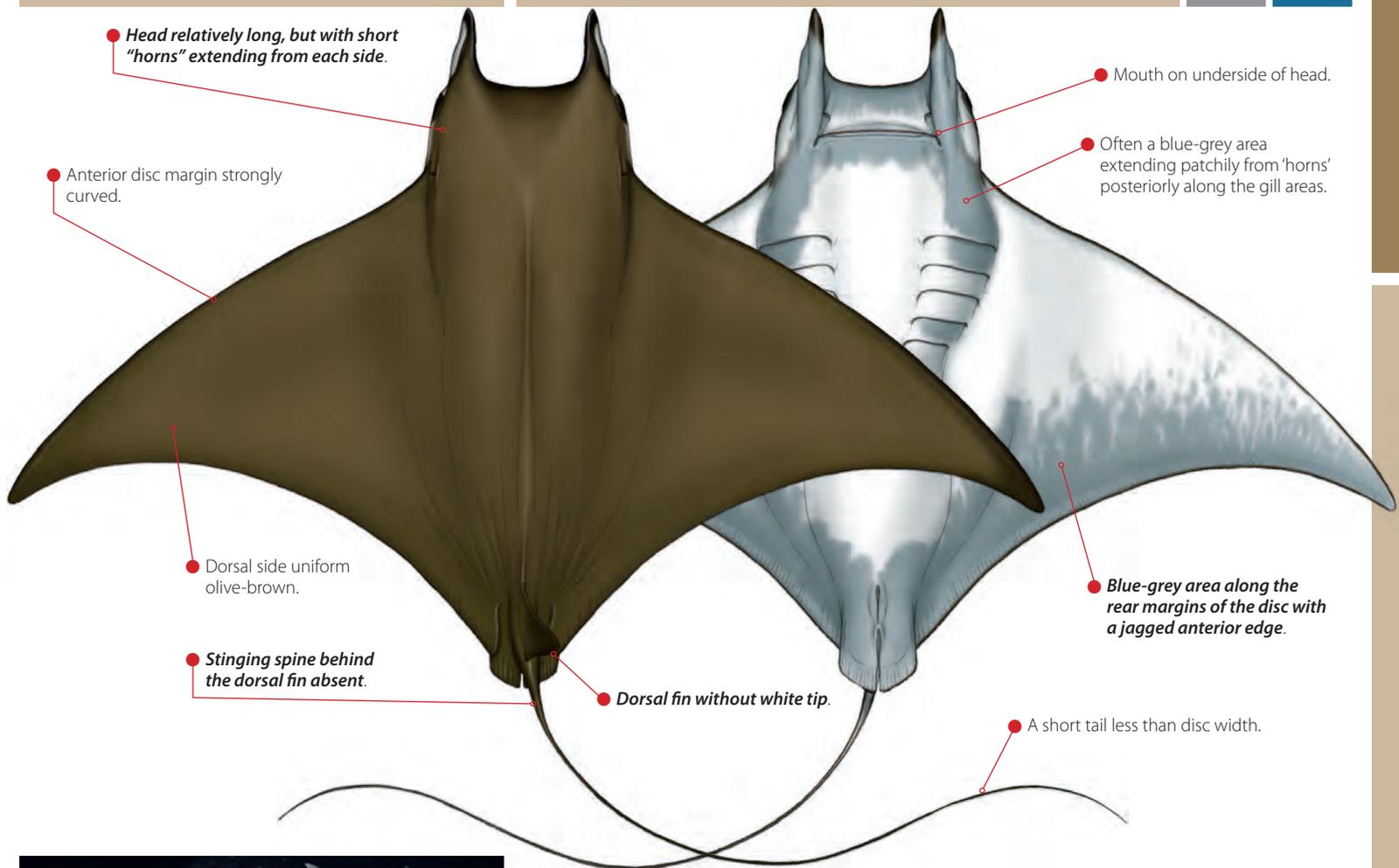
(Philippi, 1892)

Sicklefin Devilray

Local names

DD

LL



© Daniel Fernando, Manta Trust

Description

A large devilray with a long head, but short "horns", dorsal fin without a white tip, strongly curved disc "wings" with swept-back tips.

Colour

Uniform olive-brown dorsally, white ventrally with a blue-grey area along the rear margins of disc the distinction between the two is very variegated.

Size

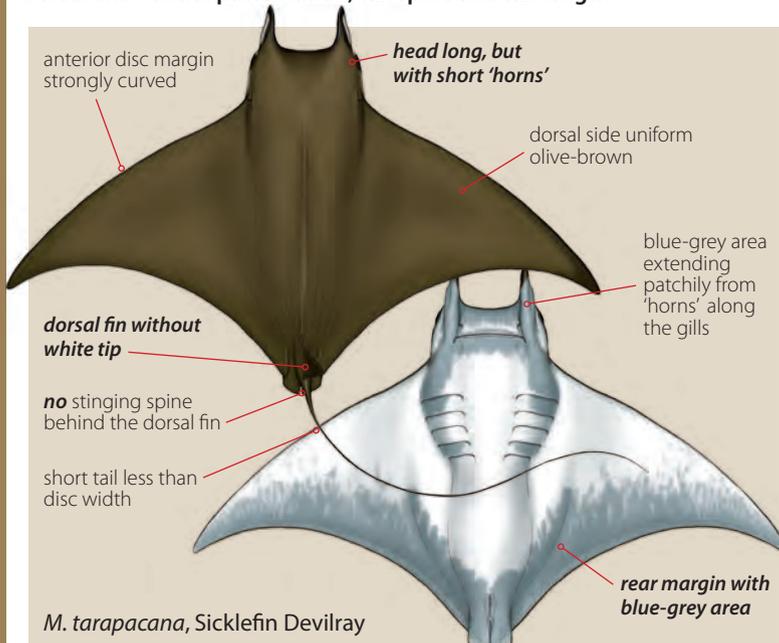
Males mature: 240–250cm DW
 Females mature: 270–280cm DW.
 Maximum size: 370cm DW.
 Birth size: about 100-140cm DW.



SIMILAR SPECIES

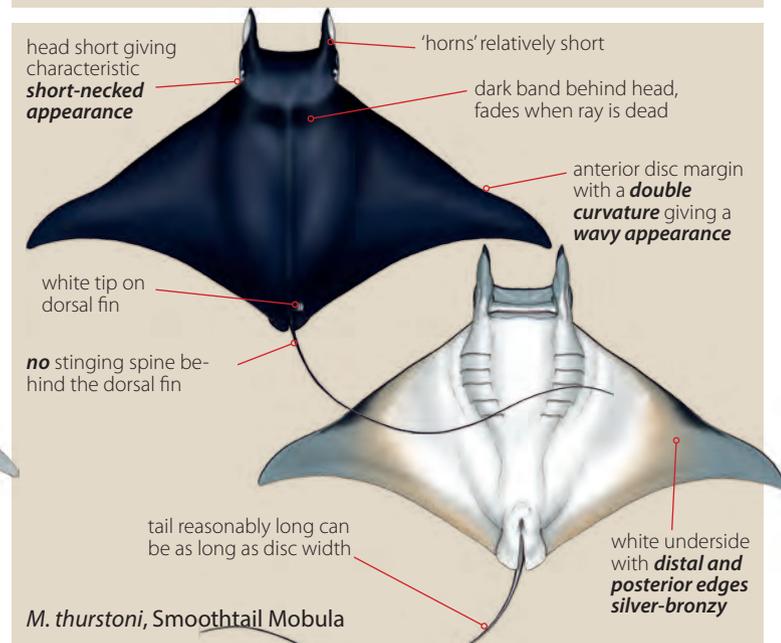
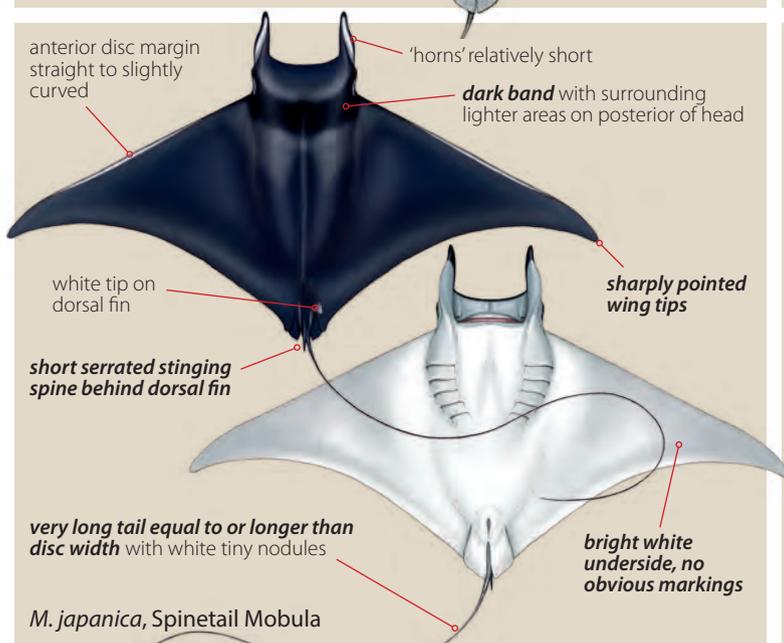
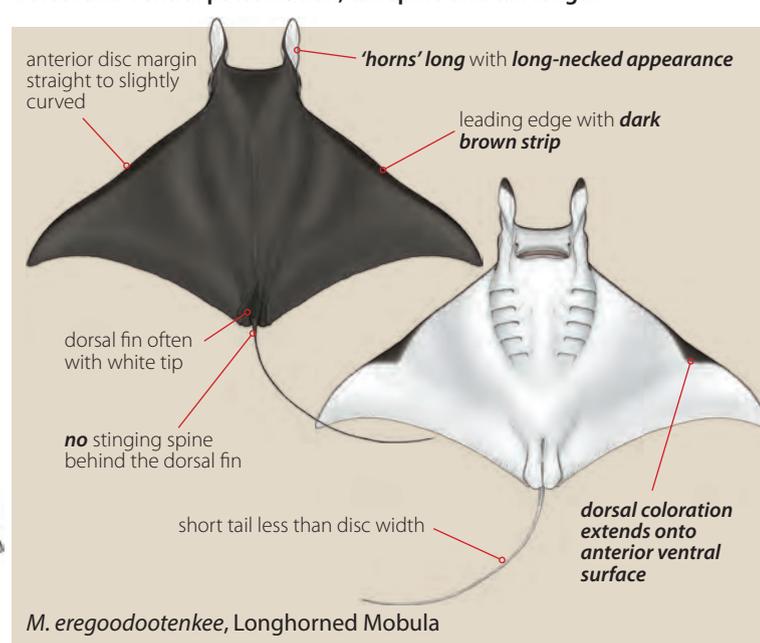
A relatively large mobulid with a long neck and horns, strongly curved disc wings with swept-back tips giving it a "sickle-fin" shape, no tail spine, a tail shorter than disc length, and a distinctive ridge along midback; a uniform olive-brown

Dorsal and ventral patternation, tail spine and tail length



dorsal coloration; dorsal without white tip; ventral surface white anteriorly, shading to grey on posterior part of disc and on wings; posterior edge of gills with grey shading; margin between white and grey ventral surface irregular.

Dorsal and ventral patternation, tail spine and tail length



Mobula thurstoni

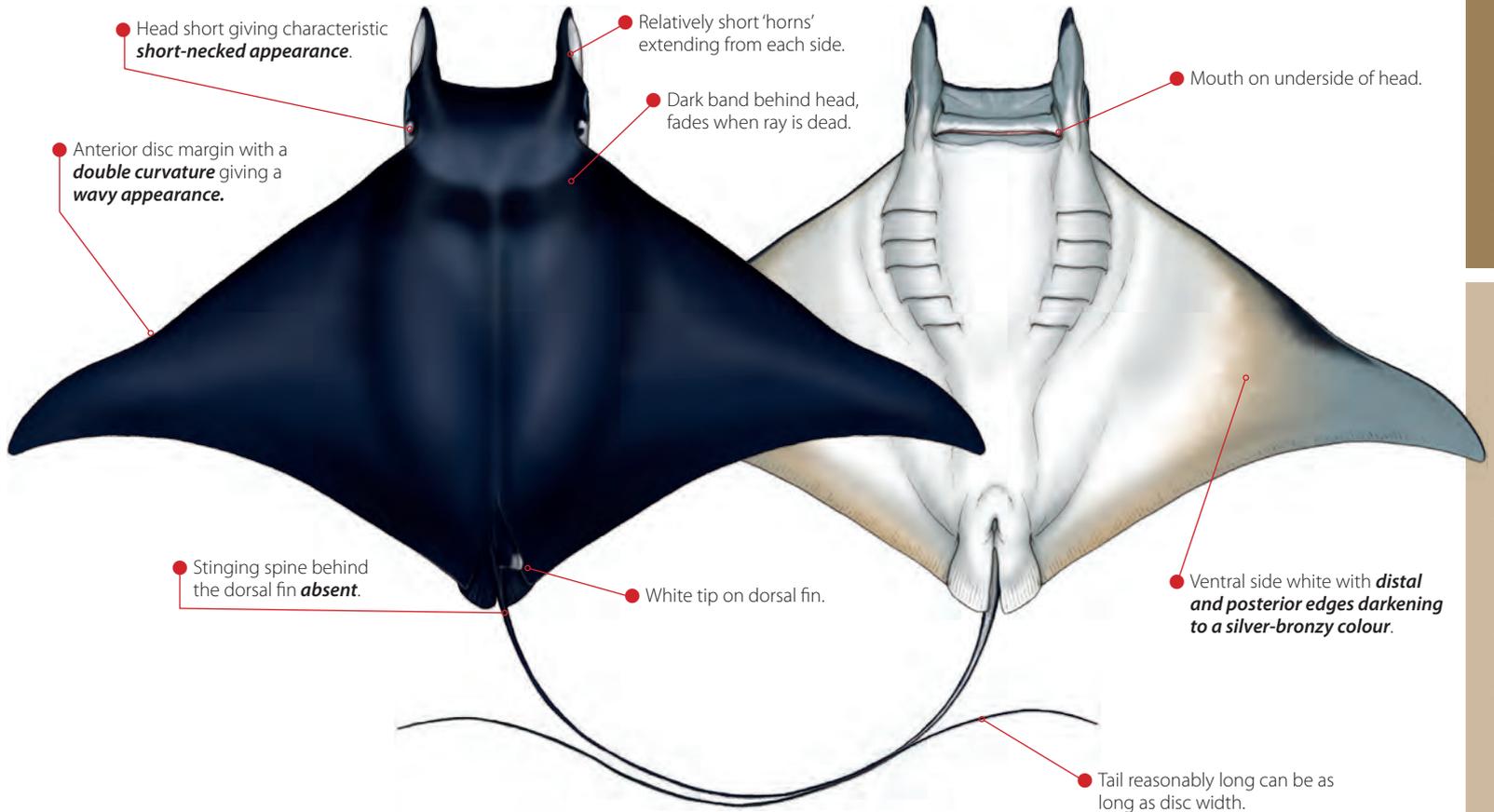
(Lloyd, 1908)

Smoothtail Mobula (=Bentfin Devilray)

Local names

NT

LL



© Guy Stevens, Manta Trust

Description

A moderate sized devilray with a short head and short "horns", a double (wavy) curvature along the anterior disc margin, with swept-back tips and no stinging spine. .

Colour

Dorsal surface dark blue to black, ventral surface white down the middle, with silvery-bronzy fin tips; dorsal fin white tipped.

Size

Males mature: about 150cm DW.
Females mature: about 150cm DW.
Maximum size: 180–190cm DW.
Birth size: about 65–85cm DW.

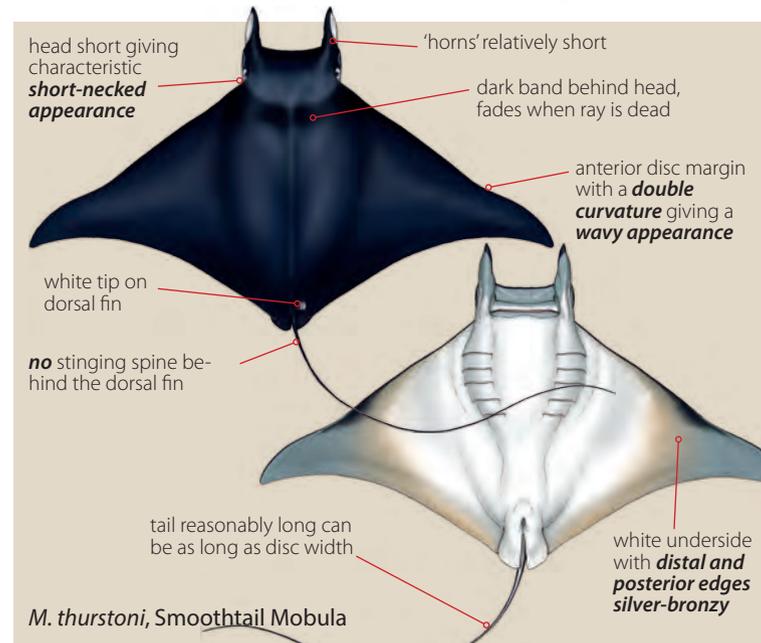


SIMILAR SPECIES

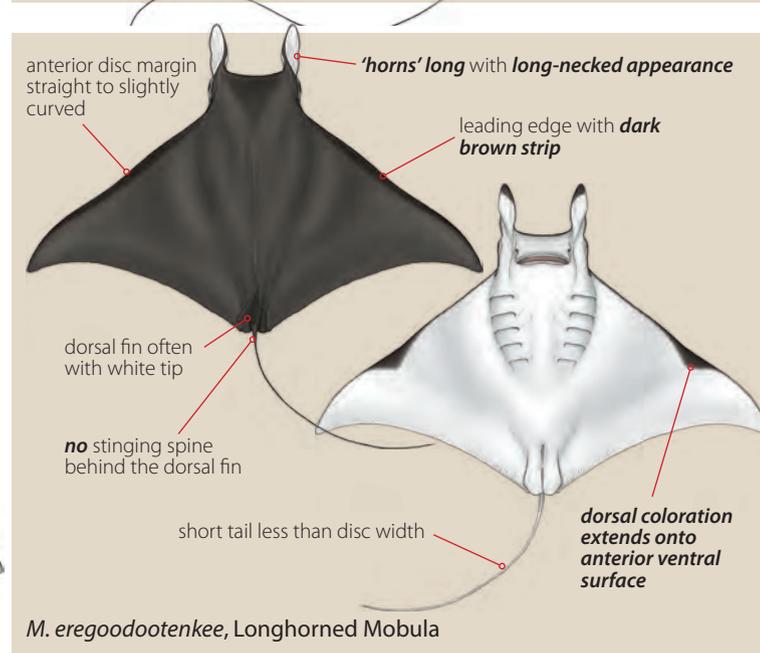
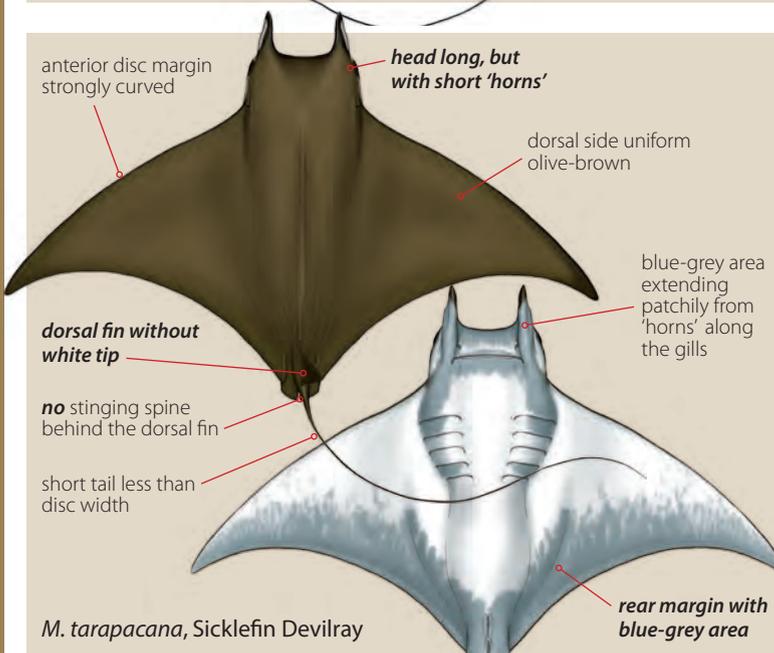
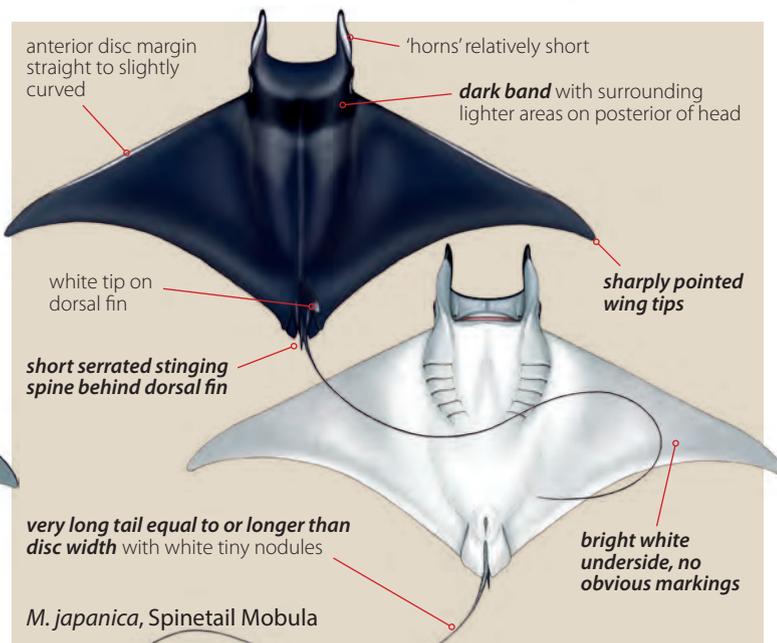
A moderate-size mobulid with a short head and horns, and no stinging spine. Dorsal surface a very dark blue, silvery around eyes, and a white tip on dorsal

fin. Ventral surface white anteriorly, but disc "wings" with a silvery-brownish sheen.

Dorsal and ventral patternation, tail spine and tail length



Dorsal and ventral patternation, tail spine and tail length



SPECIES INCLUDED IN GUIDE

HEXANCHIDAE Cow sharks

- *Heptranchias perlo* Sharpnose Sevengill Shark p.77
- *Hexanchus griseus* Bluntnose Sixgill Shark p.79

SOMNIOSIDAE Sleeper sharks

- *Scymnodalatias albicauda* Whitefin Dogfish p.87
- *Somniosus antarcticus* Southern Sleeper Shark p.89
- *Zameus squamulosus* Velvet Dogfish p.91

DALATIIDAE Kitefin sharks

- *Euprotomicrus bispinatus* Pygmy Shark p.81
- *Heteroscymnoides marleyi* Longnose Pygmy Shark p.83
- *Isistius brasiliensis* Cookiecutter Shark p.85

RHINCODONTIDAE Whale sharks

- *Rhincodon typus* Whale Shark p.69

ODONTASPIDIDAE Sandtiger sharks

- *Odontaspis ferox* Smalltooth Sandtiger p.63
- *Odontaspis noronhai* Bigeye Sandtiger Shark p.65

PSEUDOCARCHARIIDAE Crocodile sharks

- *Pseudocarcharias kamoharai* Crocodile Shark p.67

MEGACHASMIDAE Megamouth sharks

- *Megachasma pelagios* Megamouth Shark p.71

ALOPIIDAE Thresher sharks

- *Alopias pelagicus* Pelagic Thresher Shark p.57
- *Alopias superciliosus* Bigeye Thresher Shark p.59
- *Alopias vulpinus* Common Thresher Shark p.61

CETORHINIDAE Basking sharks

- *Cetorhinus maximus* Basking Shark p.73

LAMNIDAE Mackerel sharks

- *Carcharodon carcharias* White Shark p.47
- *Isurus oxyrinchus* Shortfin Mako Shark p.49
- *Isurus paucus* Longfin Mako Shark p.51
- *Lamna nasus* Porbeagle p.53

CARCHARHINIDAE Requiem sharks

- *Carcharhinus albimarginatus* Silvertip Shark p.29
- *Carcharhinus altimus* Bignose Shark p.31
- *Carcharhinus amblyrhynchos* Grey Reef Shark p.33
- *Carcharhinus falciformis* Silky Shark p.35
- *Carcharhinus galapagensis* Galapagos Shark p.37
- *Carcharhinus longimanus* Oceanic Whitetip Shark p.39
- *Carcharhinus obscurus* Dusky Shark p.41
- *Carcharhinus plumbeus* Sandbar Shark p.43
- *Galeocerdo cuvier* Tiger Shark p.25
- *Prionace glauca* Blue Shark p.27

SPHYRNIDAE Hammerhead sharks

- *Sphyrna lewini* Scalloped Hammerhead p.15
- *Sphyrna mokarran* Great Hammerhead p.17
- *Sphyrna zygaena* Smooth Hammerhead p.19

DASYATIDAE Stingrays

- *Pteroplatytrygon violacea* Pelagic stingray p.95

MOBULIDAE Devil rays

- *Manta alfredi* Reef Manta Ray p.97
- *Manta birostris* Manta Ray p.99
- *Mobula eregoodootenkee* Longhorned Mobula p.101
- *Mobula japonica* Spinetail Mobula p.103
- *Mobula tarapacana* Sickletail Devilray p.105
- *Mobula thurstoni* Smoothtail Mobula p.107

This part aims at giving an overview of the existing legislation (international, regional and national) regarding the species in the present guide.

CITES¹ lists

On CITES lists, the species are grouped in the Appendices² according to how threatened they are by international trade.

Appendix I lists species that are the **most endangered** among CITES-listed animals and plants. Appendix II lists species that are not necessarily now threatened with extinction but that **may become threatened** unless trade is closely controlled. Appendix III is a list of species included at the request of a Party that already regulates trade in the species and that **needs the cooperation of other countries to prevent unsustainable or illegal exploitation.**

The following species of the present guide are indicated on CITES lists:

 *Sphyrna lewini* **Scalloped Hammerhead** p.15

Appendix II and III

 *Sphyrna mokarran* **Great Hammerhead** p.17

 *Sphyrna zygaena* **Smooth Hammerhead** p.19

 *Lamna nasus* **Porbeagle** p.53

 *Carcharodon carcharias* **White Shark** p.47

 *Rhincodon typus* **Whale Shark** p.69

 *Cetorhinus maximus* **Basking Shark** p.73

Appendix II

1 The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

2 Last update: September 2014

IOTC Regulatory Framework³

IOTC Resolution 05/05 concerning the conservation of sharks caught in association with fisheries managed by IOTC

This resolution calls on IOTC Contracting Parties to annually report catches of sharks, requests the Scientific Committee to provide preliminary advice on the status of key shark species and propose a research plan for comprehensive assessment of these stocks of sharks, calls on CPCs to undertake research to identify ways to make fishing gear more selective, calls for full utilization of captured sharks, and provides a number of guidelines regarding shark finning.

It also requires that the total weight of shark fins on board not exceed 5 percent of the weight of sharks on board, and encourages the live release of all sharks taken incidentally to other targeted species.

Prior to the adoption by IOTC of resolution 05/05, there was no requirement for sharks to be recorded at the species level in logbooks. As a consequence, it is only since 2008 that some very patchy statistics are becoming available on shark catch, mostly representing retained catch and not accounting for discards.

The following species of the present guide are affected by the IOTC Resolution 05/05:

Prionace glauca **Blue Shark** p.27

There is no quantitative stock assessment for blue shark in the Indian Ocean, therefore the stock status is highly uncertain. Blue sharks are commonly taken by a range of fisheries in the Indian Ocean and in some areas they are fished in their nursery grounds. Because of their life history characteristics – they are relatively long lived (16-20 years), mature relatively late (at 4-6 years), and have relatively few offspring (25-50 pups every year), the blue shark is vulnerable to overfishing.

Isurus oxyrinchus **Shortfin Mako Shark** p.49

Again, a reconstruction of possible catches based on nominal CPUE of the different fleets would give catches of over 1,585 t for the shortfin mako sharks (*Isurus oxyrinchus*), compared to reported catches of 525 t. Data are not available at the IOTC Secretariat for stock assessment, but historical research data shows overall decline in CPUE and mean weight of mako sharks (Romanov et al. 2008). However, standardised CPUEs from Japanese (Hiraoka et.al. 2012) and from Portuguese (Coelho et al. 2012) longliners actually show an increasing trend following early declines, indicative of stable stock status. CPUE in the South African fisheries is fluctuating without any trend (Holmes et al. 2009).

3 Information coming from SmartFish Programme Report SF/2013/32 “

Carcharhinus longimanus **Oceanic Whitetip Shark** p.39

There is no quantitative stock assessment and limited basic fishery indicators currently available for oceanic whitetip sharks (*Carcharhinus longimanus*) in the Indian Ocean therefore the stock status is highly uncertain. Oceanic whitetip sharks are commonly taken by a range of fisheries in the Indian Ocean. Because of their life history characteristics – they are relatively long lived, mature at 4–5 years, and have relatively few offspring (<20 pups every two years), the oceanic whitetip shark is vulnerable to overfishing. Despite the lack of data, it is apparent from the information that is available that oceanic whitetip shark abundance has declined significantly over recent decades.

The practice of shark finning is considered to be regularly occurring for this species (Clarke 2008; Clarke et al. 2006) and the bycatch/release injury rate is unknown but probably high. At-haulback mortality of oceanic whitetip sharks in the Atlantic Ocean longline fishery targeting swordfish was estimated to be at 30.6% (Coelho et al., 2011). Reported catches in 2010 were of 450 t, but it is likely that catches were considerably higher.

Carcharhinus falciformis **Silky Shark** p.35

There is no quantitative stock assessment or basic fishery indicators currently available for silky sharks (*Carcharhinus falciformis*) in the Indian Ocean, therefore the stock status is highly uncertain. Silky sharks are commonly taken by a range of fisheries in the Indian Ocean. Because of their life history characteristics – they are relatively long lived (over 20 years), mature at 6–12 years, and have relatively few offspring (<20 pups every two years), the silky shark is vulnerable to overfishing. Despite the lack of data, it is clear from the information that is available that silky shark abundance has declined significantly over recent decades. However, standardized CPUE analyses from Japanese longliners (Hiraoka et al. 2012) show a fairly stable trend, while from Spanish data the trend is rising after having fallen steadily between 1998 and 2007 (Ramos-Cartelle, et al., 2012). The practice of shark finning is considered to be regularly occurring and on the increase for this species (Clarke 2008; Clarke et al. 2006) and the bycatch/release injury rate is unknown but probably high.

Reported landings in 2010 were of 1,153 t, compared to the 5-year average (2006-2010) of 670 t.

Alopias pelagicus **Pelagic Thresher Shark** p.57

Alopias superciliosus **Bigeye Thresher Shark** p.59

Finally, the thresher sharks (*A. vulpinus* and *A. superciliosus*) are all discarded, as are all the sharks and rays caught in small numbers.

IOTC Resolution 12/09 on the conservation of thresher sharks (Family Alopiidae) caught in association with fisheries in the IOTC area of competence

The following species of the present guide are affected by the IOTC Resolution 12/09:

 *Alopias pelagicus* **Pelagic Thresher Shark** p.57

 *Alopias superciliosus* **Bigeye Thresher Shark** p.59

 *Alopias vulpinus* **Common Thresher Shark** p.61

Fishing Vessels flying the flag of an IOTC Member or Cooperating Non-Contracting Party (CPCs) are prohibited from retaining on board, transhipping, landing, storing, selling or offering for sale any part or whole carcass of thresher sharks of all the species of the family Alopiidae.

However, there is one exception (paragraph 7 of the Resolution): Scientific observers shall be allowed to collect biological samples⁴ from thresher sharks that are dead at haulback, provided that the samples are part of the research project approved by the IOTC Scientific Committee (or IOTC Working Party on Ecosystems and Bycatch (WPEB)).

IOTC Resolution 13/02 on the recording of catch and effort data by fishing vessels

IOTC Resolution 13/02 on the recording of catch and effort data by fishing vessels in the IOTC Area of competence provides guideline for logbooks for all the tuna fisheries (purse seine, longline, gillnets and pole and line) which also indicates all the sharks species to be recorded by each gear on the logbooks.

IOTC Resolution 13/05 on the conservation of whale sharks (*Rhincodon typus*)⁵

The following species of the present guide are affected by the IOTC Resolution 13/05:

 *Rhincodon typus* **Whale Shark** p.69

Contracting Parties and Cooperating Non-Contracting Parties (collectively, CPCs) shall prohibit their flagged vessels from intentionally setting a purse seine net around a whale shark in the IOTC area of competence, if it is sighted prior to the commencement of the set.

⁴ vertebrae, tissues, reproductive tracts, stomachs, skin samples, spiral valves, jaws, whole and skeletonised specimens for taxonomic works and museum collections

⁵ The provisions of this measure do not apply to artisanal fisheries operating exclusively in their respective EEZ

CPCs shall require that, in the event that a whale shark is unintentionally encircled in the purse seine net, the master of the vessel shall:

- a. take all reasonable steps to ensure its safe release, while taking into consideration the safety of the crew. These steps shall follow the best practice guidelines for the safe release and handling of whale sharks developed by the IOTC Scientific Committee;
- b. report the incident to the relevant authority of the flag State, with the following information:
 - i the number of individuals;
 - ii a short description of the interaction, including details of how and why the interaction occurred, if possible;
 - ii the location of the encirclement;
 - iv the steps taken to ensure safe release;
 - v an assessment of the life status of the animal on release, including whether the whale shark was released alive but subsequently died.

CPCs using other gear types fishing for tuna and tuna-like species associated with a whale shark shall report all interactions with whale sharks to the relevant authority of the flag State and include all the information outlined in paragraph 3b(i–v).

IOTC Resolution 13/06 on a Scientific and Management Framework on the conservation of shark species caught in association with IOTC managed species⁶

The following species of the present guide are affected by the IOTC Resolution 13/06:

 *Carcharhinus longimanus* **Oceanic Whitetip Shark** p.39

CPCs shall prohibit⁷, as an interim pilot measure, all fishing vessels flying their flag and on the IOTC Record of Authorised Vessels, or authorised to fish for tuna or tuna-like species managed by the IOTC on the high seas to retain onboard, tranship, land or store any part or whole carcass of oceanic whitetip sharks. However, there is one exception (paragraph 7 of the Resolution): Scientific observers shall be allowed to collect biological samples⁸ from oceanic whitetip sharks taken in the IOTC area of competence that are dead at haulback, provided that the samples are a part of a research project approved by the IOTC Scientific Committee (SC)/the IOTC Working Party on Ecosystems and Bycatch (WPEB).

6 The provisional measures stipulated in this Resolution shall be evaluated in 2016 by the IOTC Scientific Committee to deliver more appropriate advice on the conservation and management of the stocks for the consideration of the Commission.

7 The provisions of this measure do not apply to artisanal fisheries operating exclusively in their respective Exclusive Economic Zone (EEZ) for the purpose of local consumption.

8 vertebrae, tissues, reproductive tracts, stomachs, skin samples, spiral valves, jaws, whole and skeletonised specimens for taxonomic works and museum collections

CPCs shall require fishing vessels flying their flag and on the IOTC Record of Authorised Vessels or authorised to fish for tuna and tuna-like species managed by the IOTC on the high seas to promptly release unharmed, to the extent practicable, of oceanic whitetip sharks when brought alongside for taking onboard the vessel. However, CPCs should encourage their fishers to release this species if recognised on the line before bringing them onboard the vessels.

The Memorandum of Understanding (MOU) on the Conservation of Migratory Sharks

It is the first global instrument for the conservation of migratory species of sharks. The MOU is a legally non-binding international instrument. It aims to achieve and maintain a favourable conservation status for migratory sharks based on the best available scientific information and taking into account the socio-economic value of these species for the people in various countries.

 *Isurus oxyrinchus* **Shortfin Mako Shark** p.49

 *Rhincodon typus* **Whale Shark** p.69

 *Cetorhinus maximus* **Basking Shark** p.73

 *Carcharodon carcharias* **White Shark** p.47

 *Isurus paucus* **Longfin Mako Shark** p.51

 *Lamna nasus* **Porbeagle** p.53

These 7 species are covered by the Memorandum of Understanding and their ranges.

The Signatories of the MoU should cooperatively strive to adopt, implement and enforce such legal, regulatory and administrative measures as appropriate to **conserve and manage migratory sharks and their habitat.**

IPOA-SHARKS

The objective of the IPOA-SHARKS is to ensure the conservation and management of sharks and their long-term sustainable use.

The IPOA-SHARKS is voluntary. It has been elaborated within the framework of the Code of Conduct for Responsible Fisheries as envisaged by Article 2 (d). All concerned States are encouraged to implement it.

Seychelles is the only country in the region that implemented a National Plan of Action for the Conservation and Management of Sharks in 2007⁹.

The Seychelles NPOA

The document sets out a four-year action plan with 11 work programmes that seek to address the 10 goals of the IPOA-Sharks as they relate to local circumstances. The NPOA contains a mission statement for attainment within its first four-year phase and sets as its ultimate vision:

“That shark stocks in the Seychelles EEZ are effectively conserved and managed so as to enable their optimal long-term sustainable use.”

Fisheries Act (1987)

Prohibition of net fishing of sharks (Reg. 16c): forbids the fishing of shark using nets from the 1st August 1998. This regulation was brought in due to concerns about by-catch of turtles, marine mammals and non-target whale shark in gillnets.

Subsequent to this, SFA developed and distributed the local “drag” (anchored longlines) system of fishing to former net fishermen. The switch to this equipment is believed to have increased shark catch.

Fisheries (Shark Finning) Regulations 2006: forbids the practice of finning by foreign vessels licensed to operate in Seychelles EEZ by requiring vessels to land fin to the quantity of no more than 5% of the mass of dressed shark carcass. The feasibility/effectiveness of the enforcement of this regulation has yet to be assessed.

The wild animals and birds protection Act (1961)

 *Rhincodon typus* **Whale Shark** p.69

It establishes the legal framework for the protection of species of wild animals and birds.

Wild Animals (Whale Shark) Protection Regulations, 2003: declares the whale shark (*Rhincodon typus*) protected throughout Seychelles at all times. The whale shark was not previously fished in Seychelles waters, the legislation was rather introduced in order to facilitate the pursuit of an international conservation agreement for the species.

The Mauritius NPOA

Mauritius is currently in the process of drafting its NPOA sharks.

It will be in force beginning of 2015.

SmartFish is a regional fisheries programme managed by the Indian Ocean Commission, funded by the European Union and co-implemented by the Food and Agriculture Organization of the United Nations. SmartFish, which operates in 20 countries throughout the East and Southern Africa - Indian Ocean region, focuses on fisheries governance, management, monitoring, control and surveillance, trade, and food security.

The present field guide is designed to assist in the identification of pelagic sharks and rays of the Western Indian Ocean that are major, moderate, or minor importance to fisheries. It encompasses the offshore, high seas portion of FAO Fishing Area 51.

This guide is intended to help fishery workers collecting catch data in the field in the identification of the sharks and rays they are likely to encounter. It is conceived to be updatable, offering the possibility to add additional species accounts as new information becomes available.



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