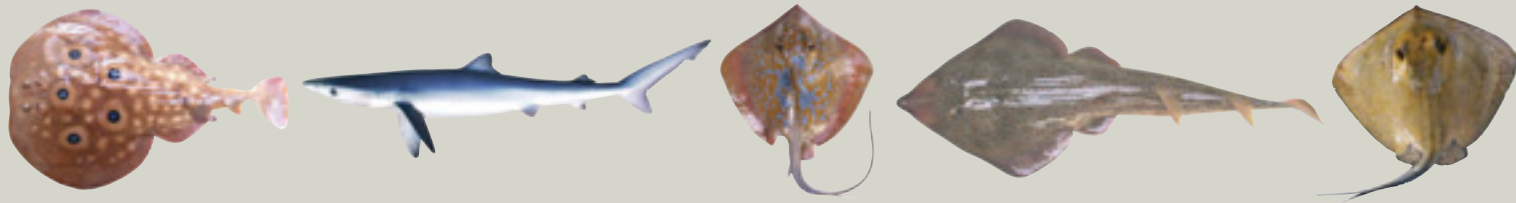


# *Identification guide of the main shark and ray species of the eastern tropical Atlantic, for the purpose of the fishery observers and biologists*

Bernard SÉRET  
IRD & MNHN



FIBA

IUCN

Union mondiale pour la Nature



PRCM

Programme de Recherche et de Contrôle  
de la Pêche en Méditerranée

## About the author

Ocean biologist by education, **Bernard SÉRET** is an ichthyologist specialized in the study of the elasmobranch fishes (sharks and rays) at the « Institut de Recherche pour le Développement » (IRD). He sojourned and made several missions overseas and took part to numerous exploratory cruises in the Atlantic, Southern and South Pacific oceans. He is the author of about an hundred scientific papers and several popular publications. His current researches concern the biodiversity, the fisheries and the conservation of sharks and rays. His works related to biodiversity include the description of several new species of sharks and rays from the Atlantic and the South Pacific, and contributions to various FAO catalogue projects (e.g. guide of fishery resources of the eastern tropical Atlantic; catalogue of the batoids of the world). Engaged in the conservation of sharks and rays, he is a member of the Shark Specialist Group of the IUCN and the scientific chair of the European Elasmobranch Association; he took part to the elaboration of several shark action plans and to the review of CITES files.

## Acknowledgements

This field guide could be realized thanks to the willingness and support of Mathieu Ducrocq (FIBA, Tour du Valat) and Mika Diop (CRSP, Dakar). The participants of the training workshop held in Dakar in December 2005 tested the preliminary version of this guide. Régis Jalabert (Opus, Arles) did the graphic conception. Thank to all.

## Photo credit

O. Alvheim, R. Bonfil, G. Burgess, F. Carvalho, J. Castro, R. Coelho, M. Dicken, M. Ducrocq, S. Iglesias, K. Manchih, J-C. Quéro, J. Randall, F. Serena, B. Séret, D. Zaera.

N°ISBN : 2-9514914-9-2



This guide was elaborated in the frame of the implementation of the Sub-Regional Plan of Action for the conservation and management of shark populations (PSRA-Requins) adopted by the Sub-Regional Commission of Fisheries (CSRP) for the countries of the sub-region: Mauritania, Senegal, Gambia, Cape Verde, Guinea-Bissau, Sierra Leone, Republic of Guinea (Conakry).

The aim of this guide is to allow a quick and easy identification of the main species of sharks and rays commonly observed in the landing sites in West Africa. Indeed, the collection of statistical data by species is a necessity for planning sustainable management of the resources. This guide is designed mainly for the fishery observers and biologists, but it will also be useful for the fishermen to record their catches on logbooks.

It has been edited thanks to the support of the International Foundation of « Banc d'Arguin » (FIBA).

Comments and observations on species included or not-included in this guide can be addressed to Bernard Séret, Muséum national d'Histoire naturelle, Département Systématique et Evolution, UMS 602 « Taxonomie et Collections », case postale n°51, 55 rue Buffon, 75231 Paris cedex 05 (e-mail: [seret@mnhn.fr](mailto:seret@mnhn.fr)).

The line-drawings were made by François Guiol (after documents).

A joint initiative of



# Foreword

Shark fisheries have rapidly expanded all over the world during the last three decades, so that today some species are threatened. Several local extinctions have to be deplored, and a considerable decrease has been observed for most species. The increasing demand related to the consumption of shark fin soup, along with the high price of this product, are the main causes of this evolution. In West Africa, the influence of this market is very sensitive. The finning practice has been generalized on board of the industrial fishery vessels. The artisanal fishermen have been modifying their fishing practises to increase the by-catch of sharks, and some of them gave up their previous activities to entirely focus on shark-targeted fishery. Networks to collect and market shark products were organized at regional level, inciting the fishermen to catch sharks and offering them loans to increase the fishing effort, whereas stocks have been showing more and more evident signs of decline.

The function of sharks, as top predators at the end of the food chain, is however essential to maintain the balances and the genetic quality of the prey populations. The collapse of shark stocks, beside the lost of biological diversity, represents a real threat for the sustainability of the marine ecosystems.

Being in mind of the threats and in favour of the ecosystemic approach for fisheries management, the member states of the Sub-Regional Commission of Fisheries (CSRP) took the initiative, in 2001, to develop a Sub-Regional Plan of Action for

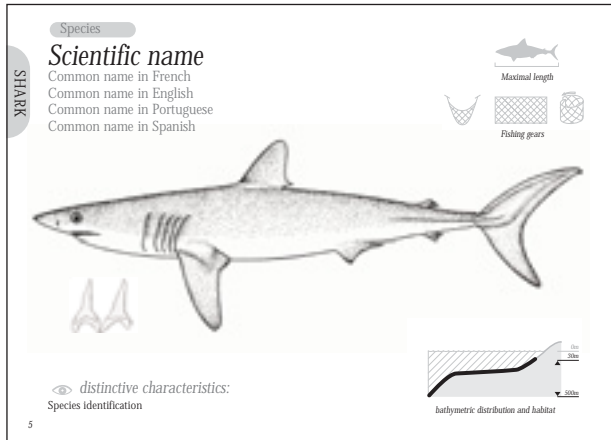
the management and the conservation of shark populations (PSRA-Requins), following the recommendations of the international plan elaborated by the FAO. Among the objectives of this plan is the improvement of the scientific information related to the impact of the fisheries on shark populations. Today, the level of accuracy of the fishery statistical data does not allow the monitoring of different shark populations.

This identification guide should allow to help to improve the capacity of shark monitoring and hence the accuracy of the scientific information necessary for their management. The identification guide has been designed for an easy use in the field and to facilitate the work of the fishery officers and embarked observers. Its edition was possible thanks to the involvement of Prof. Bernard Séret and the support of the PRSA-Requins, sponsored by FIBA and IUCN, within the framework of the Regional Programme for the Conservation of Marine and Coastal Zone in West Africa (PRCM).

**Mathieu Ducrocq**

*Fondation Internationale du Banc d'Arguin (FIBA)*

*Shark Specialists Group – West Africa*



## Presentation and use of the guide

Every species is treated on a “form-like page” including a main central drawing, sometimes with additional drawings to detail a particular morphological feature (snout, teeth). The family to which belongs the concerned species, its scientific name and the common names in French, English, Spanish and Portuguese are given. The main morphological features are listed to attract the attention of the guide user on the “distinctive characteristics” allowing the species identification. The maximal length (or the maximal disc width for some rays) is given in cm. The fishing gears used to catch the concerned species are indicated; the information is strengthened by pictograms schematizing the gears. The bathymetric distribution and the habitat are together represented on a schematized cross-section of the continental margin. The depth range is indicated and the habitat materialized by a thick line for the benthic species (living on or near the sea bottom) and by hachured lines for pelagic species (living in the water column).

At the beginning of the guide, there are plates with outline drawings of sharks and rays allowing a visual, quick and reliable identification of the main families. Besides every outline drawing, the pages concerning the family are indicated; these pages should be consulted in order to find out the species to be identified. At the end of the guide, plates with colour pictures facilitate the species identification.

## SHARKS (families)

P8



**Squatinae** angel sharks  
*Squatina* .....P10



**Alopiidae** thresher sharks  
*Alopias* .....P15



**Triakidae** houndsharks  
*Mustelus, Galeorhinus* .....P20



**Hemigaleidae** weasel sharks  
*Paragaleus* .....P21



**Ginglymostomatidae** nurse sharks  
*Ginglymostoma* .....P13



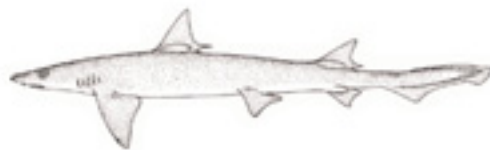
**Lamnidae** mako sharks  
*Isurus* .....P17



**Carcharhinidae** requiem sharks  
*Carcharhinus, Galeocerdo, Negaprion, Prionace, Rhizoprionodon* .....P22



**Rhincodontidae** whale shark  
*Rhincodon* .....P14



**Leptochariidae** barbel ed houndsharks  
*Leptocharias* .....P18



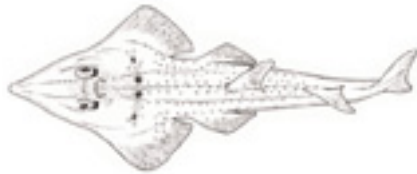
**Sphyrnidae** hammerhead sharks  
*Sphyrna* .....P37

# RAYS (families)

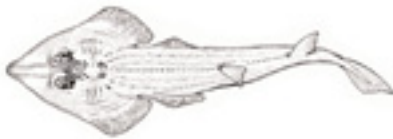
P40



**Pristidae** sawfishes  
*Pristis* .....P42



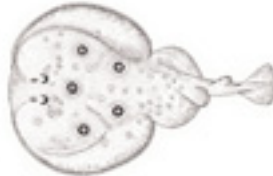
**Rhynchobatidae** wedgefishes  
*Rhynchobatus* .....P45



**Rhinobatidae** guitarfishes  
*Rhinobatos* .....P46



**Zanobatidae** panrays  
*Zanobatus* .....P51



**Torpedinidae** electric rays  
*Torpedo* .....P52



**Rajidae** skates  
*Raja* .....P56



**Dasyatidae** stingrays  
*Dasyatis* .....P58



**Gymnuridae** butterfly rays  
*Gymnura* .....P64



**Myliobatidae** eagle rays  
*Myliobatis*, *Aetobatus*,  
*Pteromylaeus* .....P66



**Rhinopteridae** cownose rays  
*Rhinoptera* .....P69

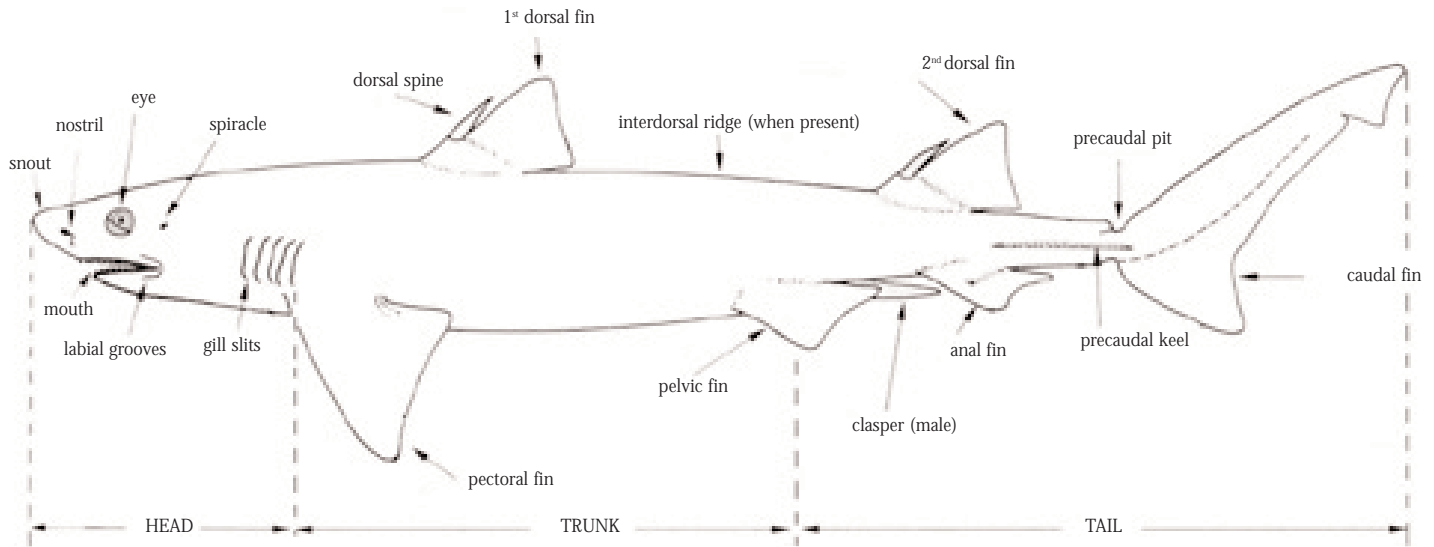


**Mobulidae** mantas, devil rays  
*Manta*, *Mobula* .....P70

# *Sharks*



# Shark morphology



Squatinaidae

# Squatina aculeata

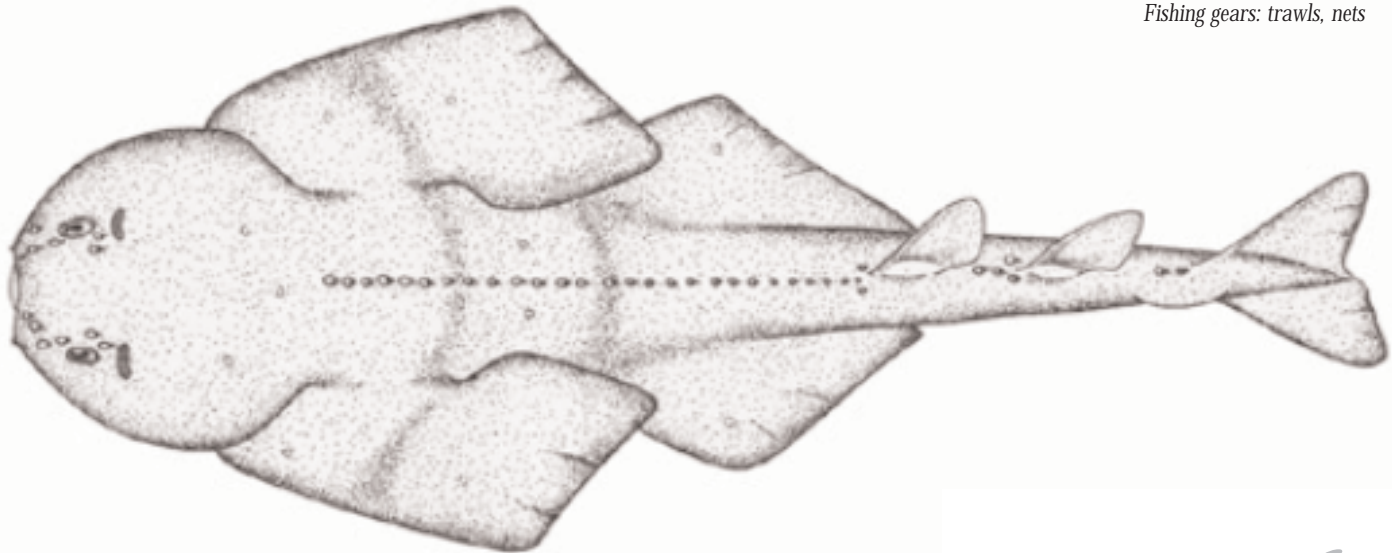
Ange de mer épineux  
Sawback angelshark  
Anjo-espinhoso  
Angelote espinudo



Max. size: 190 cm TL

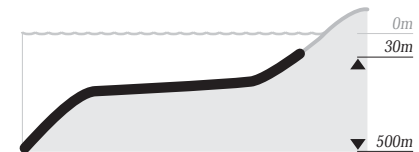


Fishing gears: trawls, nets



## Distinctive characteristics:

A mediodorsal row of strong thorny tubercles  
Nasal barbels strongly fringed



Habitat: continental shelf and slope

Squatinaidae

# *Squatina oculata*

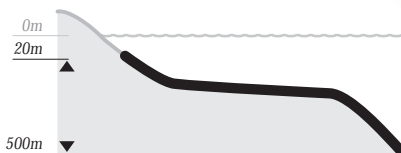
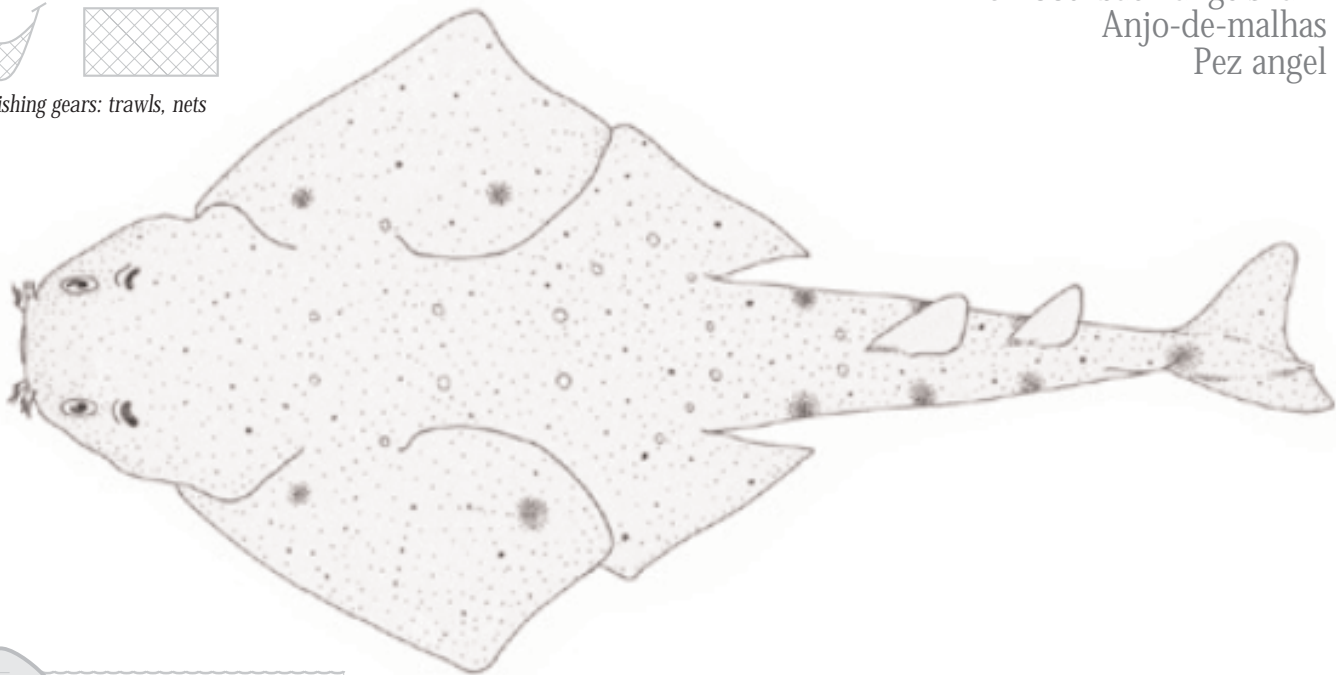
Ange de mer ocellé  
Smoothback angelshark  
Anjo-de-malhas  
Pez angel



Max. size: 140 cm TL



Fishing gears: trawls, nets



Habitat: continental shelf and slope

 *Distinctive characteristics:*

No mediodorsal row of thorny tubercles

Nasal barbels weakly fringed

Conspicuous white blotches, symmetrically arranged

Squatinidae

# *Squatina squatina*

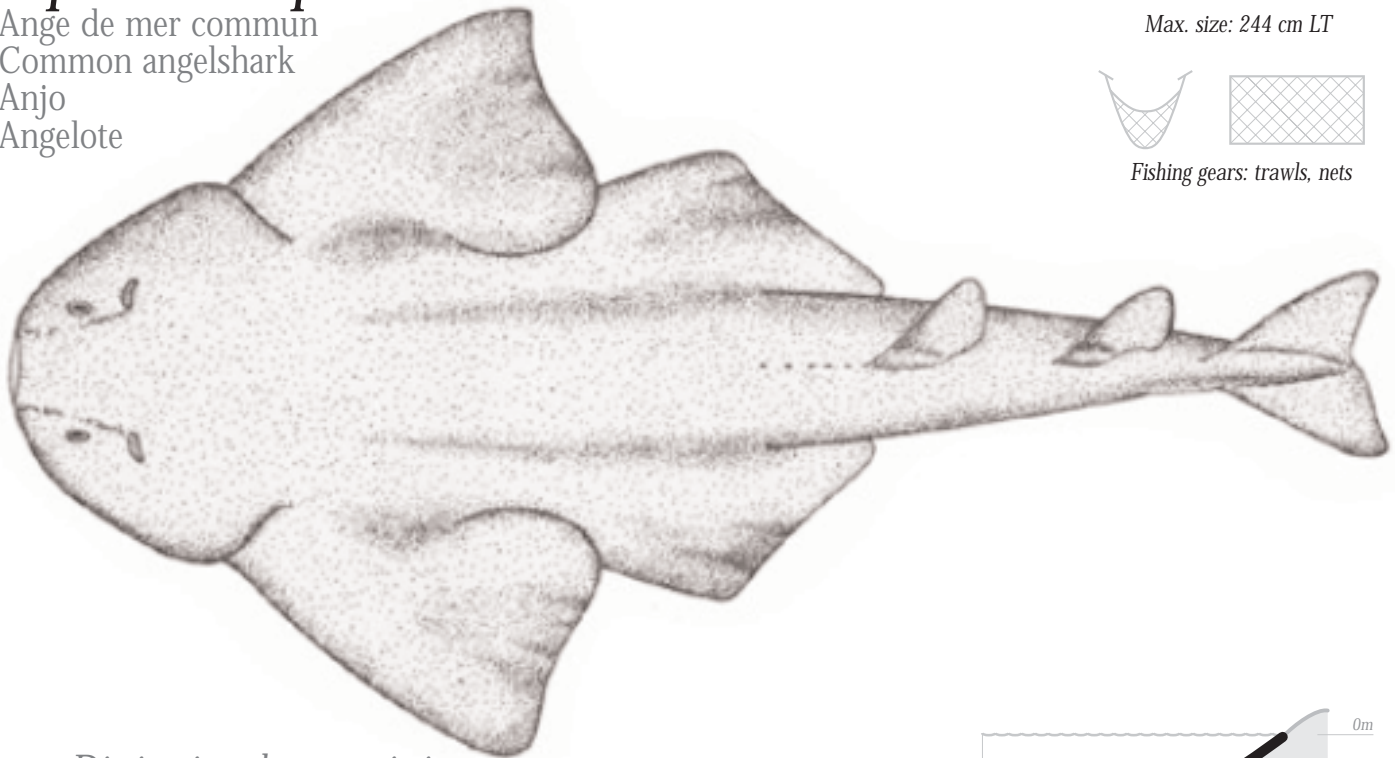
Ange de mer commun  
Common angelshark  
Anjo  
Angelote



Max. size: 244 cm LT

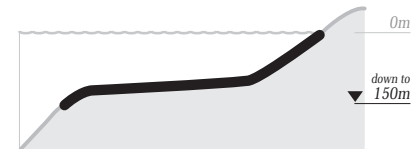


Fishing gears: trawls, nets



 *Distinctive characteristics:*

No mediodorsal row of thorny tubercles  
Nasal barbels not fringed, cone-like  
No blotches on body



*Habitat: continental shelf*



Max. size: 430 cm LT



Fishing gears: trawls, lines, nets

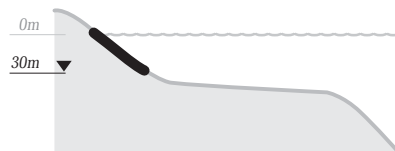
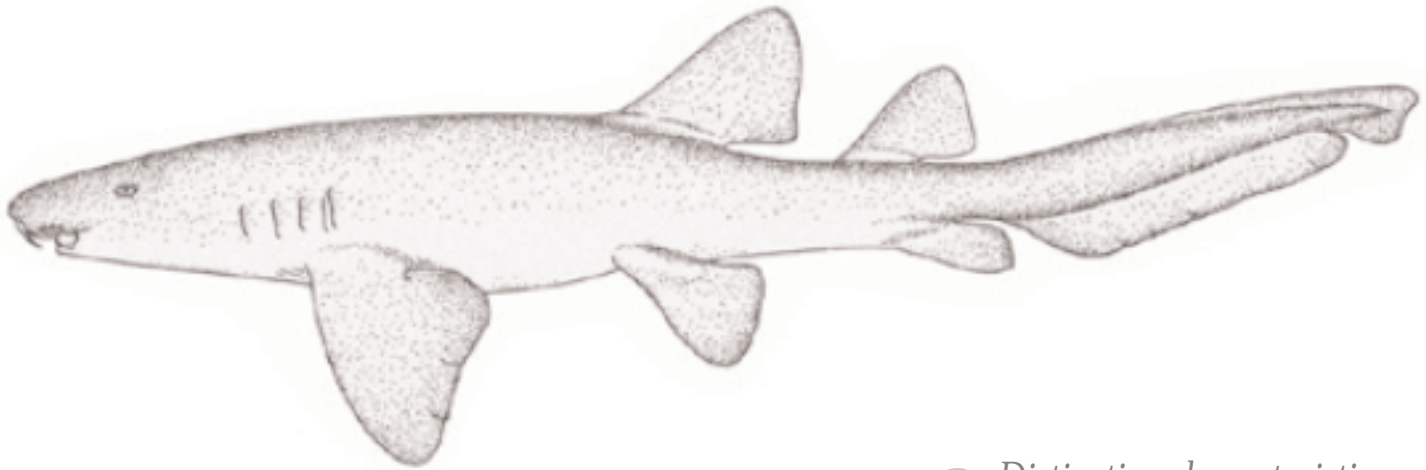
# Ginglymostoma cirratum

Requin-nourrice

Nurse shark

Dormedor

Gata nodriz



Habitat: coastal, on the bottom

## Distinctive characteristics:

Long nasal barbels

Mouth situated well in front of the level of eyes

Small eyes

Large and rounded dorsal fins

Body yellowish brown, juveniles with small dark brown blotches

Rhincodontidae

# Rhincodon typus

Requin-baleine

Whale shark

Tubarão-baleia, Pintadona

Tiburón ballena

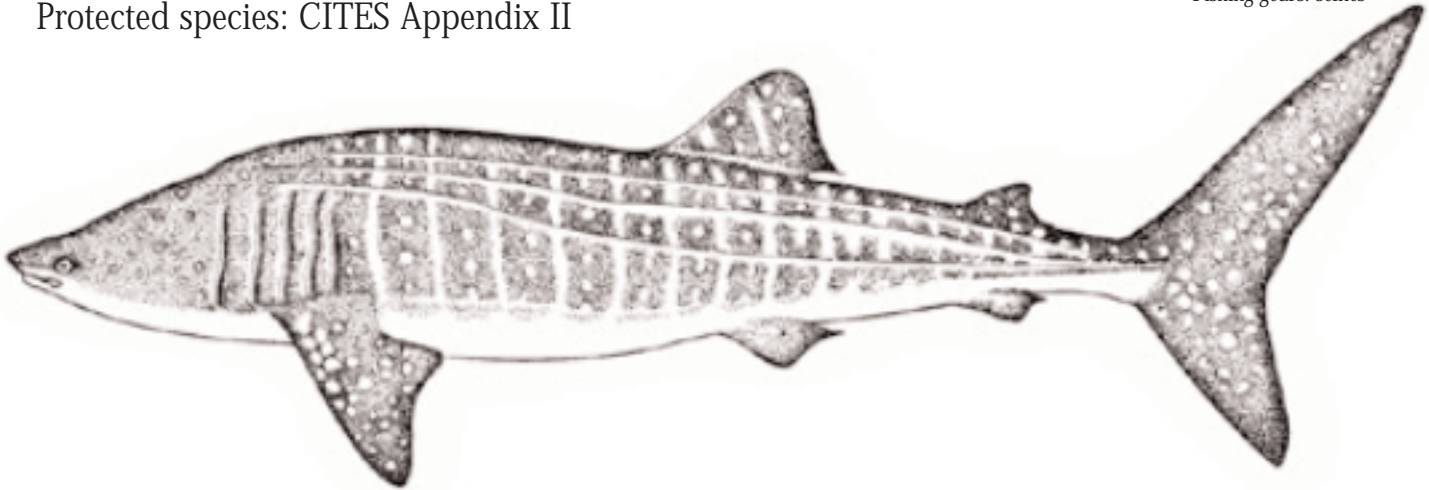
Protected species: CITES Appendix II



Max. size: 15 m LT



Fishing gears: seines



## Distinctive characteristics:

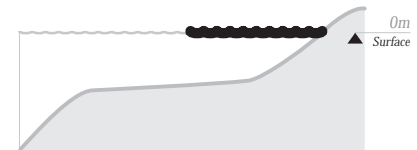
Its size: it is the largest fish

Head large and depressed, with a large mouth, almost terminal in position

Very large gill slits

Very large caudal fin, almost symmetrical

Body brownish with light vertical lines and row of blotches



Habitat: coastal and in the open sea

Alopiidae

*Alopias superciliosus*

Renard à gros yeux

Bigeye thresher shark

Raposos-de-olhos-grandes

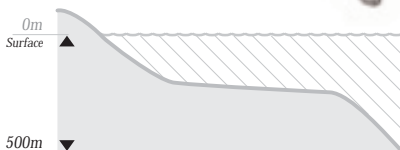
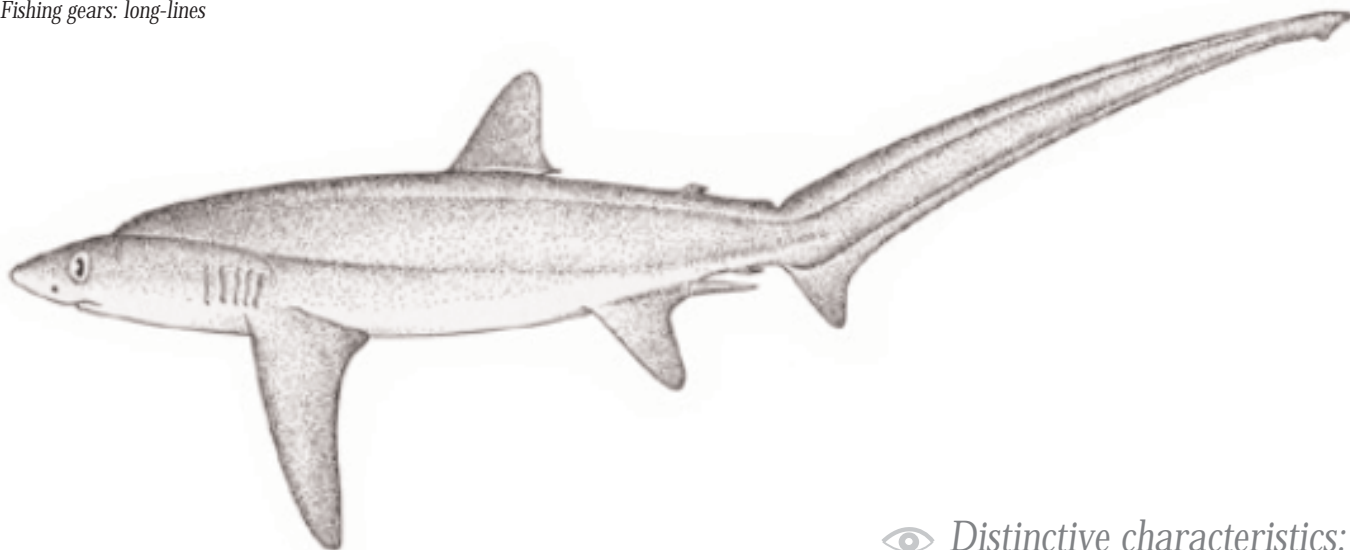
Zorro ojon



Max. size: 460 cm LT



Fishing gears: long-lines



Habitat: coastal and in the open sea

 *Distinctive characteristics:*

Very long caudal fin, almost as long as the rest of the body

A frontal groove above eyes and extending backwards

Large eyes

Pectoral fins falciform but with narrowly rounded tips

The white colour of the belly does not extend on to the flanks

Alopiidae

# *Alopias vulpinus*

Requin-renard commun  
Common thresher shark  
Raposo  
Zorro



Max. size:  $\pm 6$  m LT

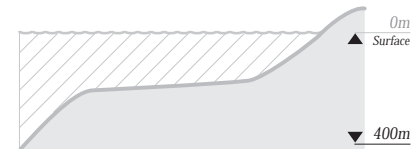


Fishing gears: long-lines



## *Distinctive characteristics:*

- Very long caudal fin, almost as long as the rest of the body
- No frontal groove above eyes
- Small eyes
- Pectoral fins falciform with pointed tip
- The white colour of the belly extends on to the flanks and above the pectoral fin base



Habitat: coastal and in the open sea





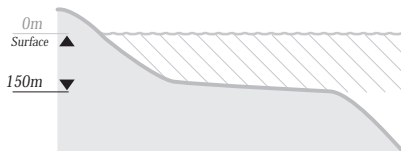
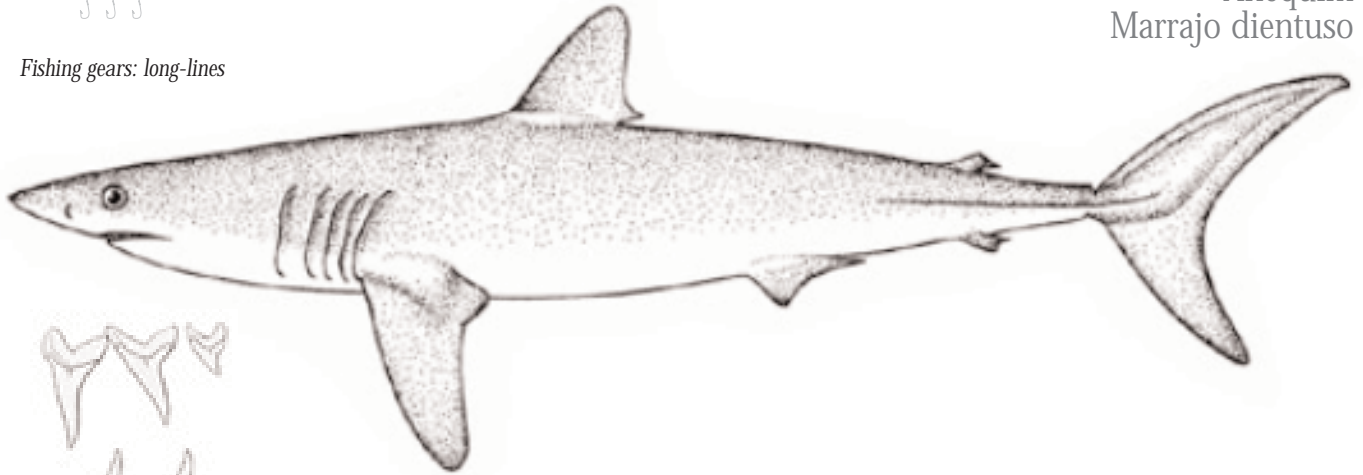
Max. size: ± 4 m LT



Fishing gears: long-lines

# Isurus oxyrinchus

Requin-taupe bleu  
Shortfin mako shark  
Anequim  
Marrajo dientuso



Habitat: in the open sea

### Distinctive characteristics:

- Body torpedo-shaped, snout pointed
- A strong longitudinal keel on the caudal peduncle
- Large caudal fin, crescent-shaped
- Pectoral fins short: shorter than the head length
- A small anal fin opposite to the second dorsal fin
- Long teeth knife-like, without lateral denticles
- Belly white, back blue

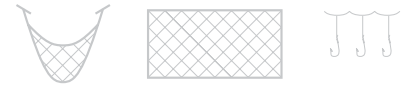
Leptochariidae

# Leptocharias smithii

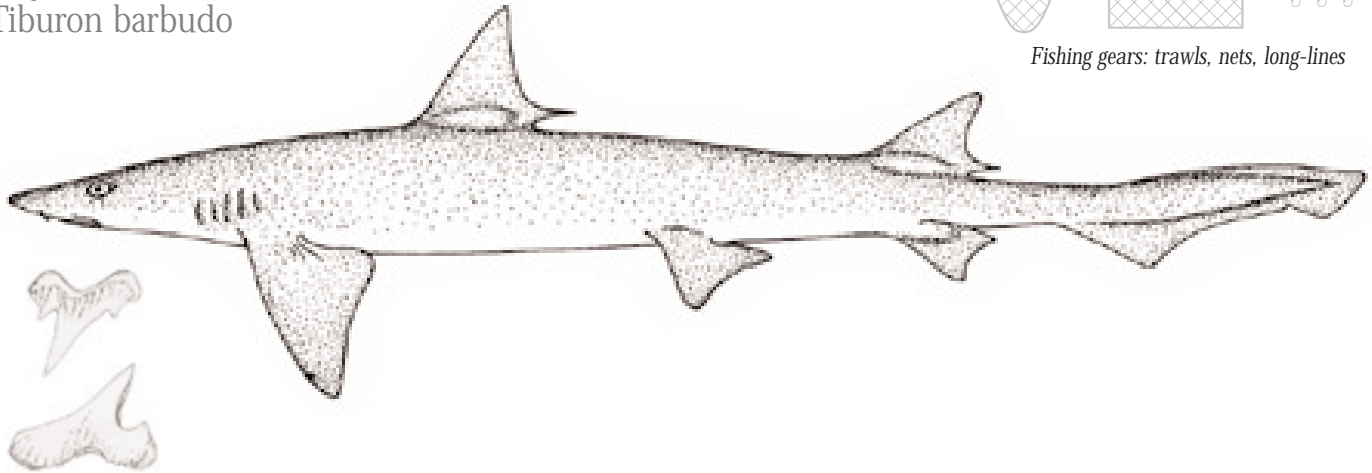
Émissole à grandes lèvres  
Barbled houndshark  
Cação-corre-corre  
Tiburón barbudo



Max. size: 82 cm LT

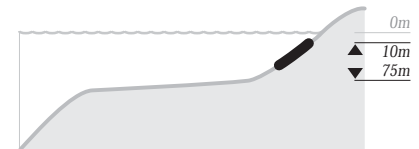


Fishing gears: trawls, nets, long-lines



## Distinctive characteristics:

- Body slender and thin
- Two large, well-separated dorsal fins, with pointed tips
- Upper labial grooves very long
- Numerous small pointed teeth with a central cusp and lateral cusplets
- Back plain light grey; belly white



Habitat: continental shelf

# Galeorhinus galeus

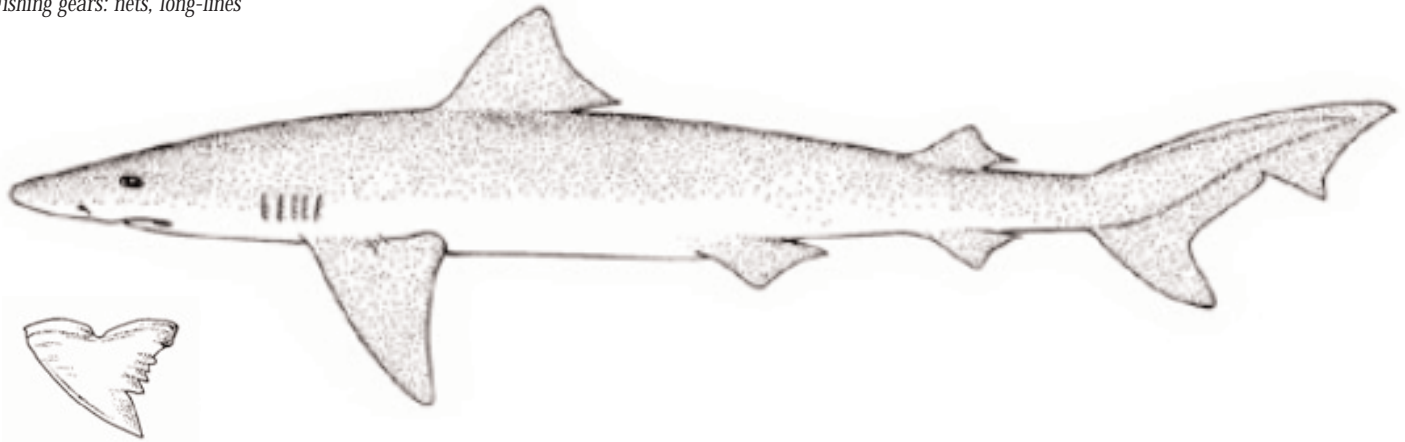
Requin-hâ  
Tope shark  
Perna-de-moça  
Cazón



Max. size:  $\pm 2$  m LT

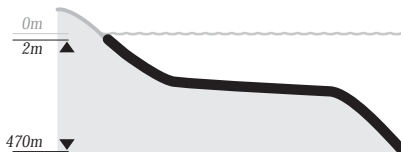


Fishing gears: nets, long-lines



## 👁 *Distinctive characteristics:*

- Snout elongated
- Two well-separated dorsal fins, the second smaller, but as large as the anal fin
- Caudal fin with a well-developed ventral lobe
- Teeth blade-like with a strong bent cusp and small accessory cusplets
- Back plain grey brownish



Habitat: continental shelf, in water column

Triakidae

# *Mustelus mustelus*

Émissole lisse  
Smooth hound  
Cação-liso, Caneja  
Musola



Max. size: 164 cm LT

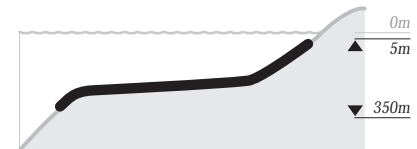


Fishing gears: trawls, nets, long-lines



## Distinctive characteristics:

- Two large, well separated dorsal fins, the second larger than the anal fin
- Ventral lobe of the caudal fin short
- 1 interdorsal ridge
- Small granular teeth (without cups) arranged in pavement
- Back plain grey



Habitat: continental shelf, near the bottom

# Paragaleus pectoralis

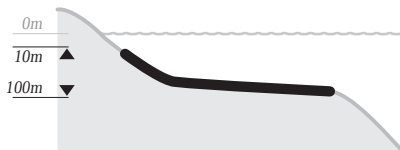
Milandre jaune  
Atlantic weasel shark  
Tubarão-dononha  
Tuburon comadiza



Max. size: 140 cm LT



Fishing gears: trawls, nets, long-lines



Habitat: continental shelf

## Distinctive characteristics:

- Two well separated dorsal fins, the second smaller than the first one, but larger than the anal fin
- Caudal fin with a well developed ventral lobe and a subterminal notch
- Upper margin of dorsal lobe of the caudal fin undulated
- Spiracles present but small
- Precaudal pit present
- Teeth small, those of the upper jaw blade-like with a bent central cusp and with accessory cusplets, those of the lower jaw with an erected central cusp without cusplets
- Back light brown with yellowish longitudinal stripes on the flanks

Carcharhinidae

# Carcharhinus altimus

Requin babosse  
Bignose shark  
Tubarão-boboso  
Tuburon boboso



Max. size: 300 cm LT

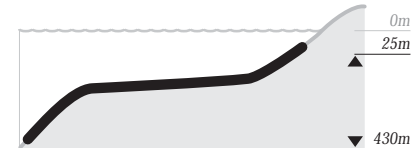


Fishing gears: trawls, long-lines



## Distinctive characteristics:

- Snout rounded and rather long
- Upper teeth triangular with serrated edges
- First dorsal fin above the level of the internal margin of the pectoral fin
- 1 interdorsal ridge
- Back greyish, tips of fins dusky



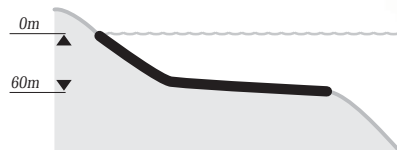
Habitat: shelf and continental slope



Max. size: 280 cm LT



Fishing gears: long-lines



Habitat: continental shelf

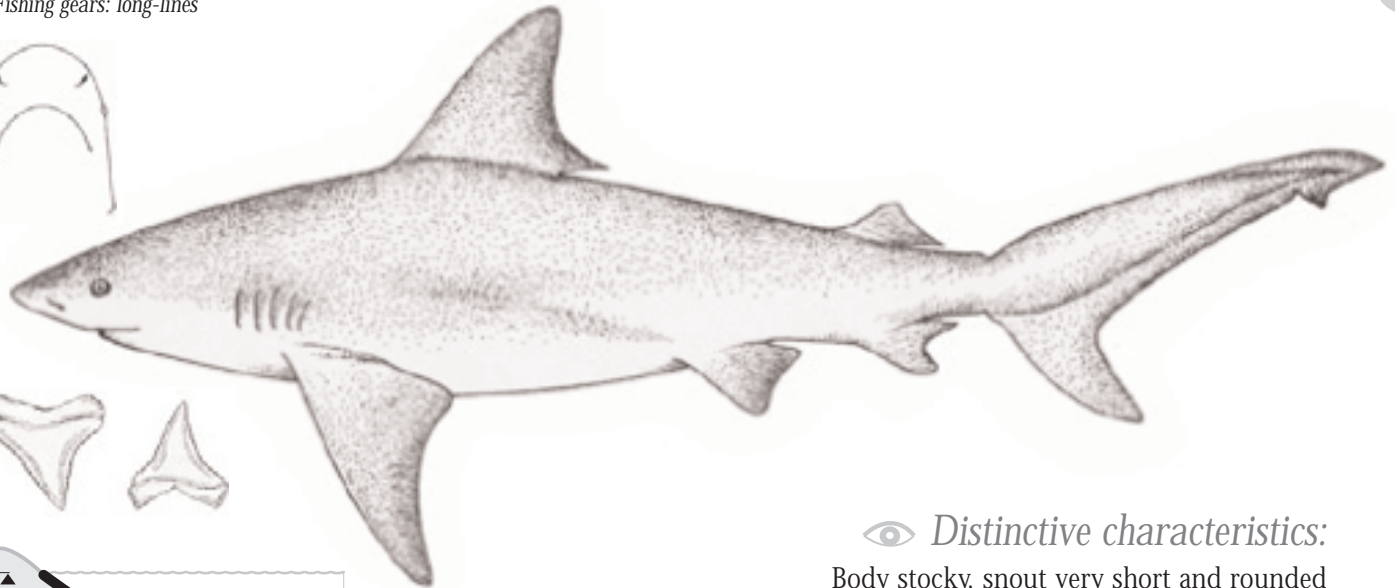
# Carcharhinus amboinensis

Requin balestrine

Pigeye shark

Marracho-baleta

Tiburón baleta



## 👁 Distinctive characteristics:

Body stocky, snout very short and rounded

First dorsal fin high with a pointed apex

Upper teeth blade-like, triangular and with finely serrated edges

No interdorsal ridge

Back grey; tips of fins dusky in juveniles, faded in adults

Carcharhinidae

# Carcharhinus brachyurus

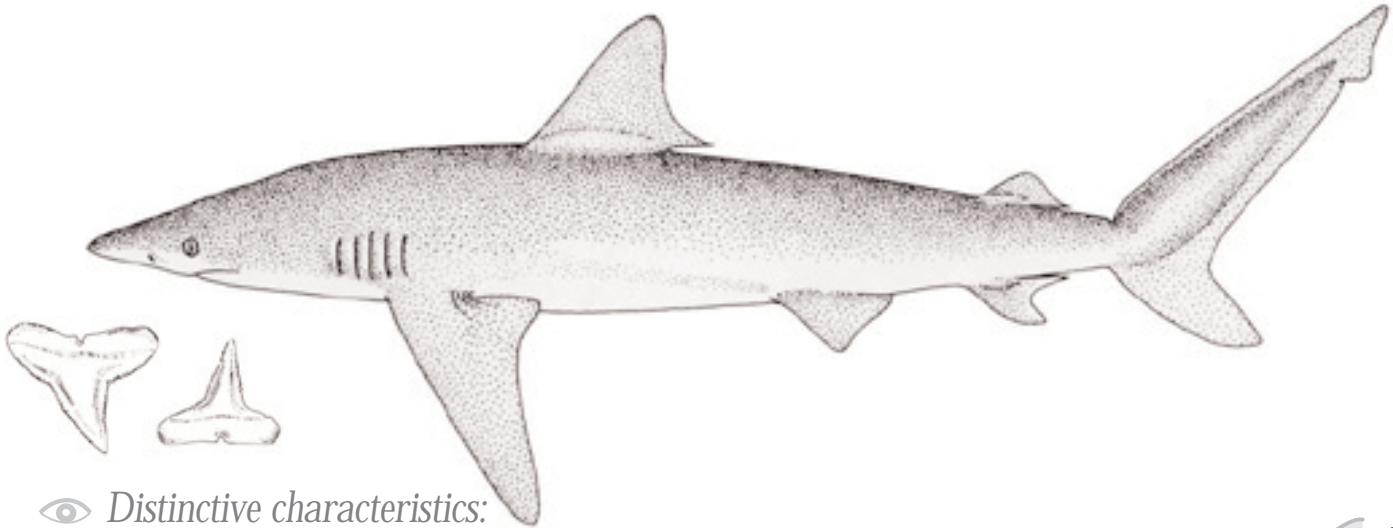
Requin cuivré  
Copper shark  
Tubarão-cobre  
Tiburón cobrizo



Max. size: 290 cm LT

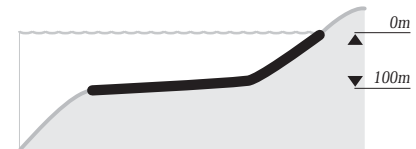


Fishing gears: trawls, long-lines.



## Distinctive characteristics:

Snout rounded (in dorsal view), conical and pointed (in lateral view)  
Upper teeth with a strong and bent cusp, well marked off its base, with finely serrated edges  
No interdorsal ridge  
Back dark grey; sometimes tip of fins dusky



Habitat: continental shelf



# Carcharhinus brevipinna

Requin-tisserand

Spinner shark

Tubarão-tecedlão

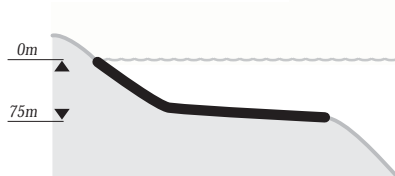
Tiburón aleta negra



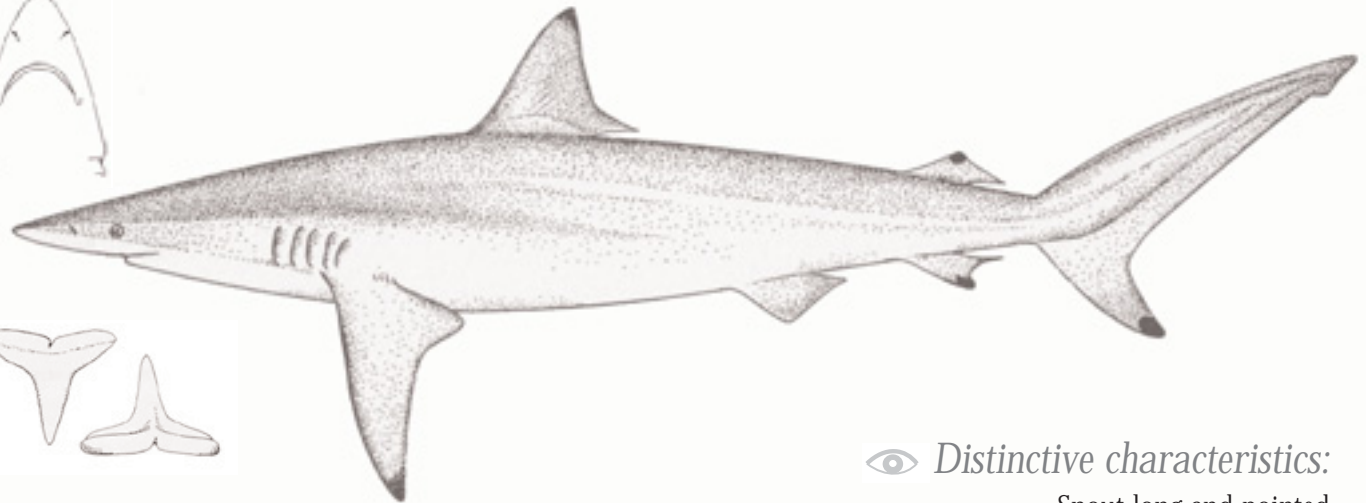
Max. size: 280 cm LT



Fishing gears: trawls, long-lines,



Habitat: continental shelf



## 👁 Distinctive characteristics:

Snout long and pointed

Upper and lower teeth with similar shape but the upper teeth have their edges finely serrated, instead lower teeth are smooth edged

No interdorsal ridge

Back grey, with a light longitudinal strip on flanks; tip of fins black in adults

Carcharhinidae

# Carcharhinus falciformis

Requin soyeux  
Silky shark  
Marracho-sedoso  
Tiburón jaquetón



Max. size: 350 cm LT

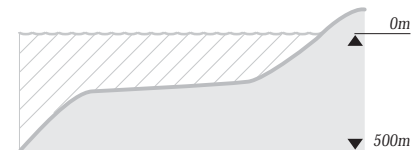


Fishing gears: seines, long-lines



## Distinctive characteristics:

Body rather slender, snout conical  
Upper teeth triangular, cusp almost straight erected, with strong serrations on base and fine ones to tip  
Lower teeth with a straight erected cusp on a wide base  
Interdorsal ridge present  
Back grey to yellowish brown; tip of fins usually plain, without dusky markings



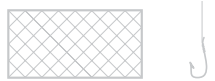
Habitat: in the open sea

# Carcharhinus leucas

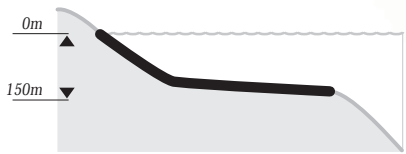
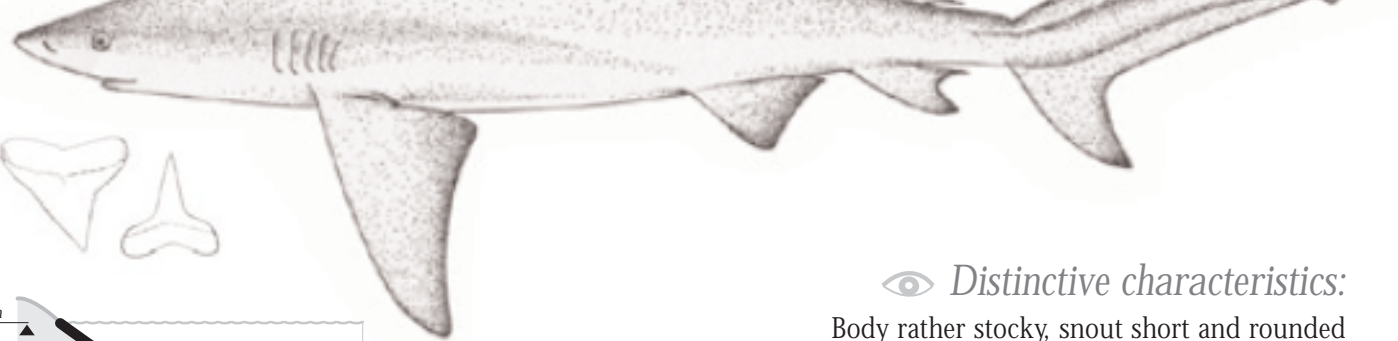
Requin-bouledogue  
Bull shark  
Tubarão-buldogue  
Tiburón sarda



Max. size: 350 cm LT



Fishing gears: nets, lines



Habitat: coastal, in estuaries and rivers

### Distinctive characteristics:

- Body rather stocky, snout short and rounded
- Upper teeth triangular with bent cusp and serrated edges
- Lower teeth almost straight erected on a wide base, with finely serrated edges
- Back greyish brown, tip of fins dusky mainly in juveniles

# Carcharhinus limbatus

Requin bordé  
 Blacktip shark  
 Marracho-de-pontas-negras  
 Tiburon macuira



Max. size: 255 cm LT



Fishing gears: nets, lines



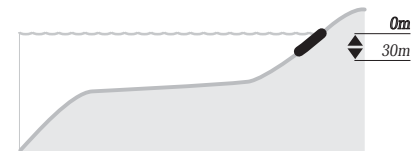
## Distinctive characteristics:

Body relatively slender, snout elongated and conical

Upper and lower teeth similar, cusp almost straight erected, with finely serrated edges and a wide base

No interdorsal ridge

Back ash-grey; a dark longitudinal strip on flanks, between the level of the pelvic fins and the gill slits; tip of fins dusky, but variable, except for a constant black blotch on pelvic fins



Habitat: coastal



Max. size: 350 cm LT



Fishing gears: long-lines, seines

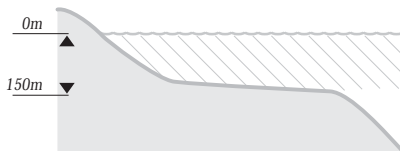
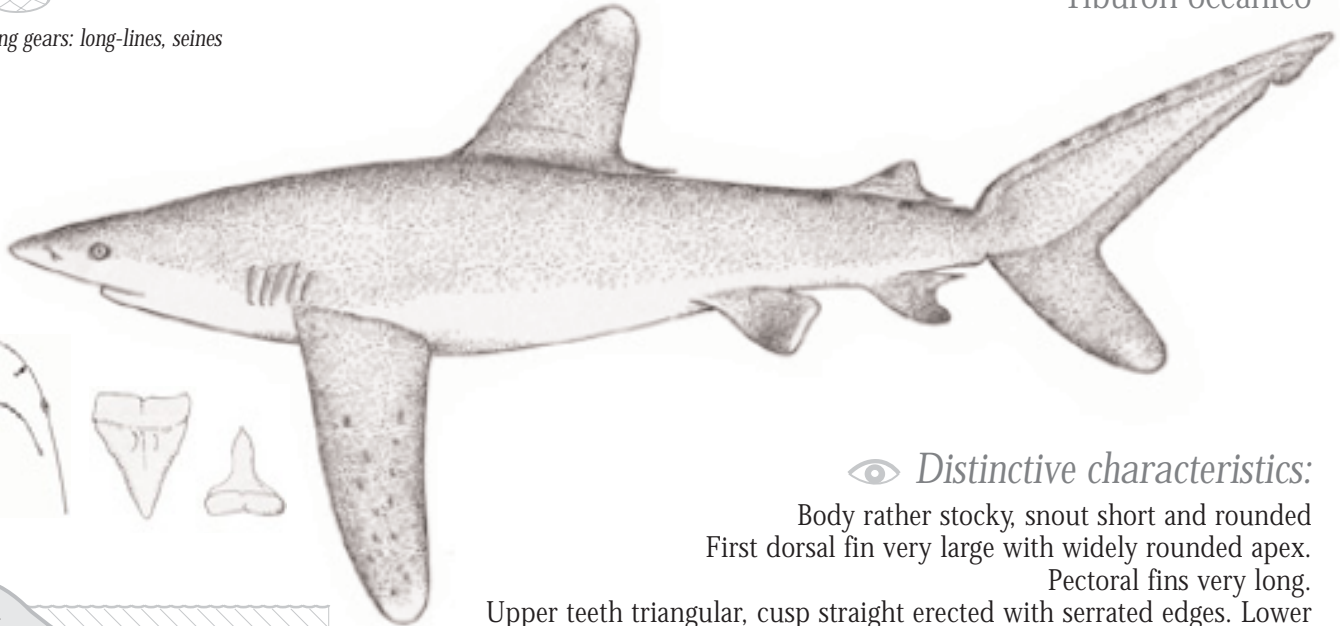
# Carcharhinus longimanus

Requin océanique

Oceanic whitetip shark

Marracho-de-pontas-brancas

Tiburón oceánico



Habitat: in the open sea

## Distinctive characteristics:

Body rather stocky, snout short and rounded

First dorsal fin very large with widely rounded apex.

Pectoral fins very long.

Upper teeth triangular, cusp straight erected with serrated edges. Lower teeth with a narrow cusp, its tip triangular, edges serrated.

Interdorsal ridge present.

Back bluish grey, dark; tip of dorsal, pectoral and caudal ventral lobe whitish, maculated of small dark blotches

# Carcharhinus obscurus

Requin sombre  
 Dusky shark  
 Tubarão-faquanda  
 Tiburon arenero



Max. size: 360 cm LT

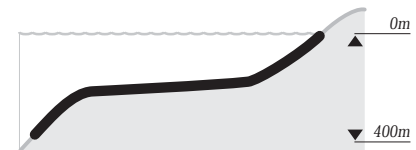


Fishing gears: nets, long-lines



## Distinctive characteristics:

Body relatively slender, snout short and rounded  
 Upper teeth large and triangular, cusp slightly bent, not marked off base, edges finely serrated  
 Lower teeth with straight erected cusp, marked off base, edges smooth  
 Interdorsal ridge present  
 Back bluish grey; tip of fins often dusky in juveniles only



Habitat: continental shelf and slope

# Carcharhinus plumbeus

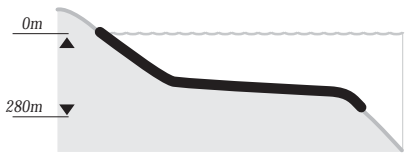
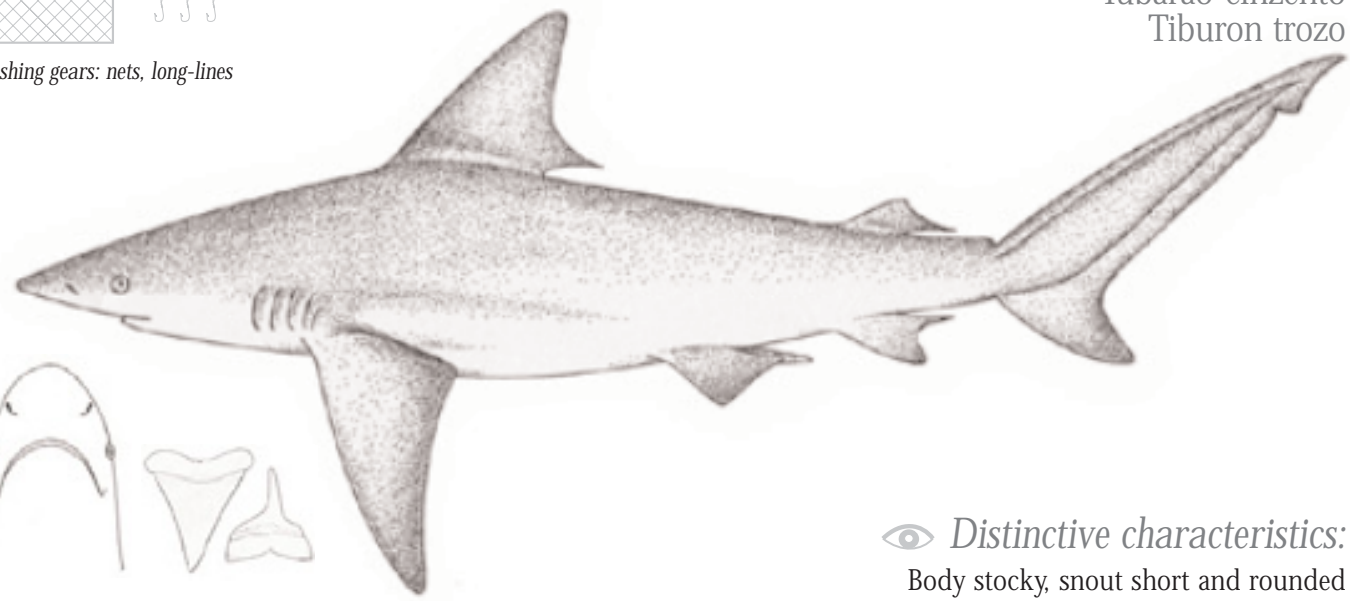
Requin gris  
 Sandbar shark  
 Tubarão-cinzentto  
 Tiburon trozo



Max. size: 300 cm LT



Fishing gears: nets, long-lines



Habitat: continental shelf

*Distinctive characteristics:*

- Body stocky, snout short and rounded
- First dorsal fin high with pointed apex
- Upper teeth large and triangular, cusp straight erected, edges finely serrated. Lower teeth with narrow erected cusp, marked off its wide base, edges almost smooth
- Interdorsal ridge present
- Back grey; tip of fins dusky in juveniles

Carcharhinidae

# Carcharhinus signatus

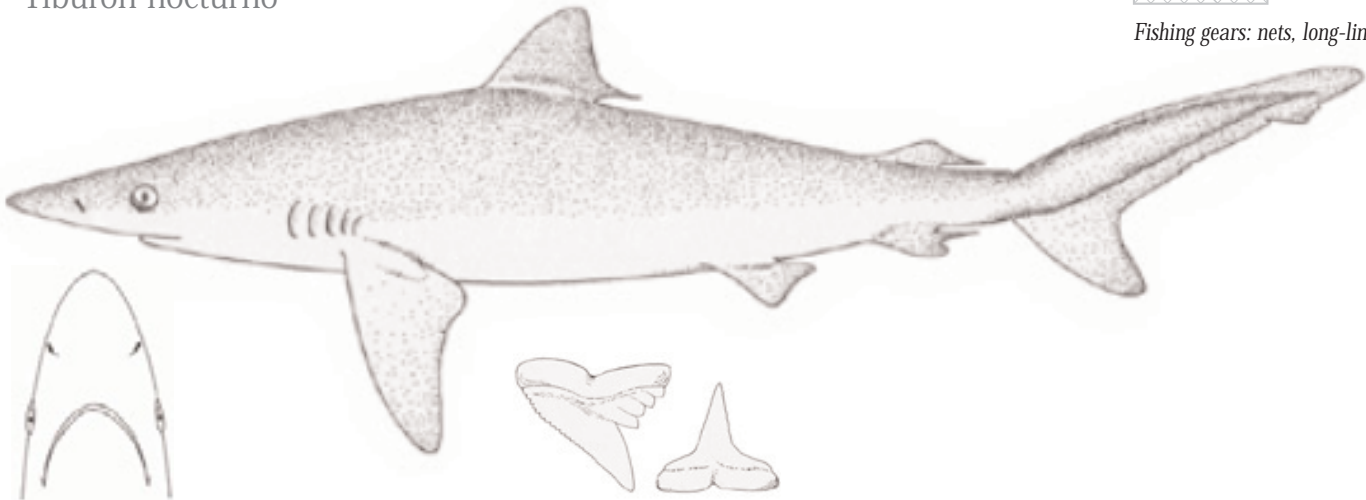
Requin de nuit  
Night shark  
Tubarão-da-noite  
Tiburón nocturno



Max. size: 280 cm LT

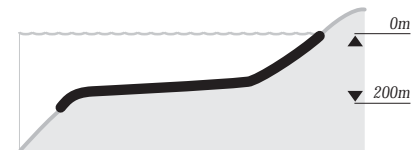


Fishing gears: nets, long-lines



## Distinctive characteristics:

Body rather stocky, snout long and rounded  
Upper teeth with a strongly bent cusp and a few accessory cusplets  
Lower teeth with straight erected cusp on a wide base  
Interdorsal ridge present  
Back bluish grey; belly greyish, inside of mouth white



Habitat: continental shelf



# Galeocerdo cuvier

Requin-tigre  
Tiger shark  
Tubarão-tigre  
Tintorera



Max. size: ± 6 m LT

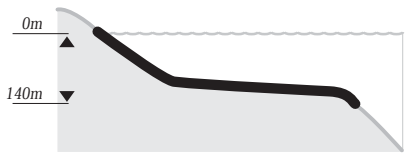


Fishing gears: nets, long-lines, lines



*Distinctive characteristics:*

- Body torpedo-shaped, snout short and rounded
- Teeth similar in both jaws, very distinctive in shape: a blade-like cusp, bent, with a strong notch, edges clearly serrated
- Spiracles present
- Interdorsal ridge present
- Back brownish grey with dark blotches and stripes, forming marble lines, well conspicuous in juveniles



Habitat: coastal

# Negaprion brevirostris

Requin citron  
Lemon shark  
Tubarão-limão  
Tiburón galano



Max. size: 320 cm LT

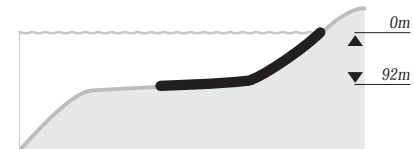


Fishing gears: nets, long-lines, lines



## Distinctive characteristics:

Body stocky, snout short and rounded  
Two large dorsal fins of about the same size  
Upper and lower teeth with straight erected cusp, smooth edged;  
base of upper teeth finely serrated, base of lower teeth smooth  
No interdorsal ridge. No spiracle.  
Back yellowish grey, belly yellowish white



Habitat: coastal

# Prionace glauca

Requin peau bleue

Blue shark

Tubarão-azul; tintureira

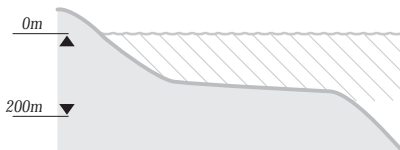
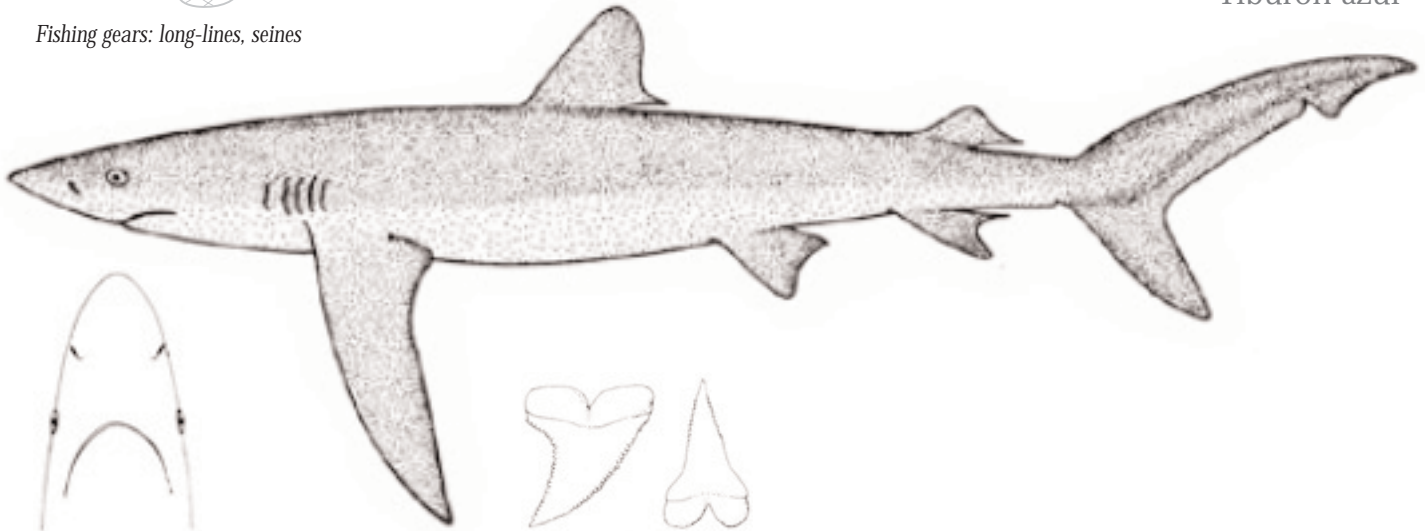
Tiburón azul



Max. size: ± 4 m LT



Fishing gears: long-lines, seines



Habitat: in the open sea

 *Distinctive characteristics:*

Body very slender; snout long and conical

Upper teeth dagger-shaped, with serrated edges

Lower teeth with straight erected cusp, high and narrow, edges serrated on tip only

Back dark blue; tip of pectoral fins and anal fin dusky

# *Rhizoprionodon acutus*

Requin à museau pointu

Milk shark

Tubarão-bicudo

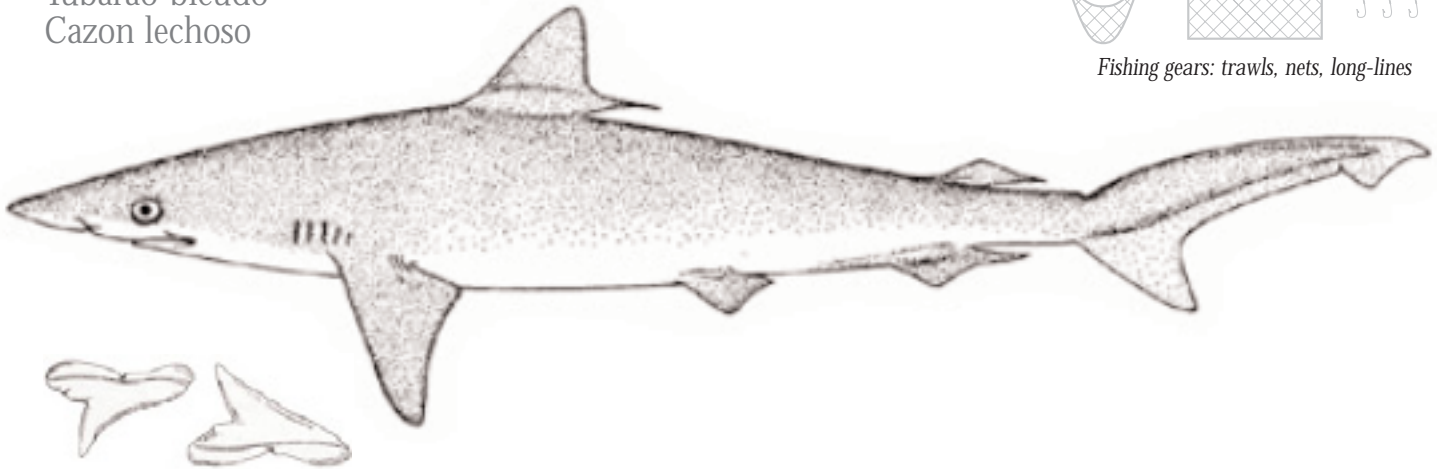
Cazon lechoso



Max. size: 115 cm LT



Fishing gears: trawls, nets, long-lines



## *Distinctive characteristics:*

Body torpedo-shaped, snout long and pointed

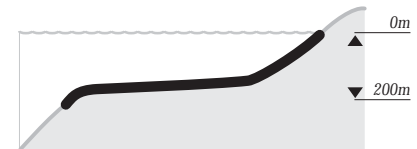
Second dorsal fin smaller than the first one

A long ventral keel in front of the anal fin

Teeth similar in both jaws, with a narrow, strongly bent cusp, a deep notch and accessory cusplets

No spiracle

Back greyish brown; dorsal fins and anal fin with dusky edges



*Habitat: continental shelf*

Sphyrnidae

*Sphyrna lewini*

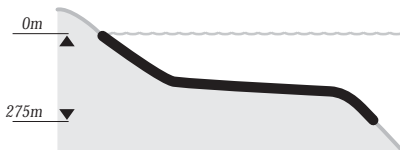
Requin-marteau halicorne  
 Scalloped hammerhead  
 Tubarão-martelo-recortado  
 Cornuda comun



Max. size: 420 cm LT



Fishing gears: nets, long-lines, seines



Habitat: continental shelf

 *Distinctive characteristics:*

- Anterior margin of head curved, with a weak but conspicuous median notch
- Posterior margin of pelvic fins straight
- Tip of pectoral fins dusky

Sphyrnidae

# *Sphyrna mokarran*

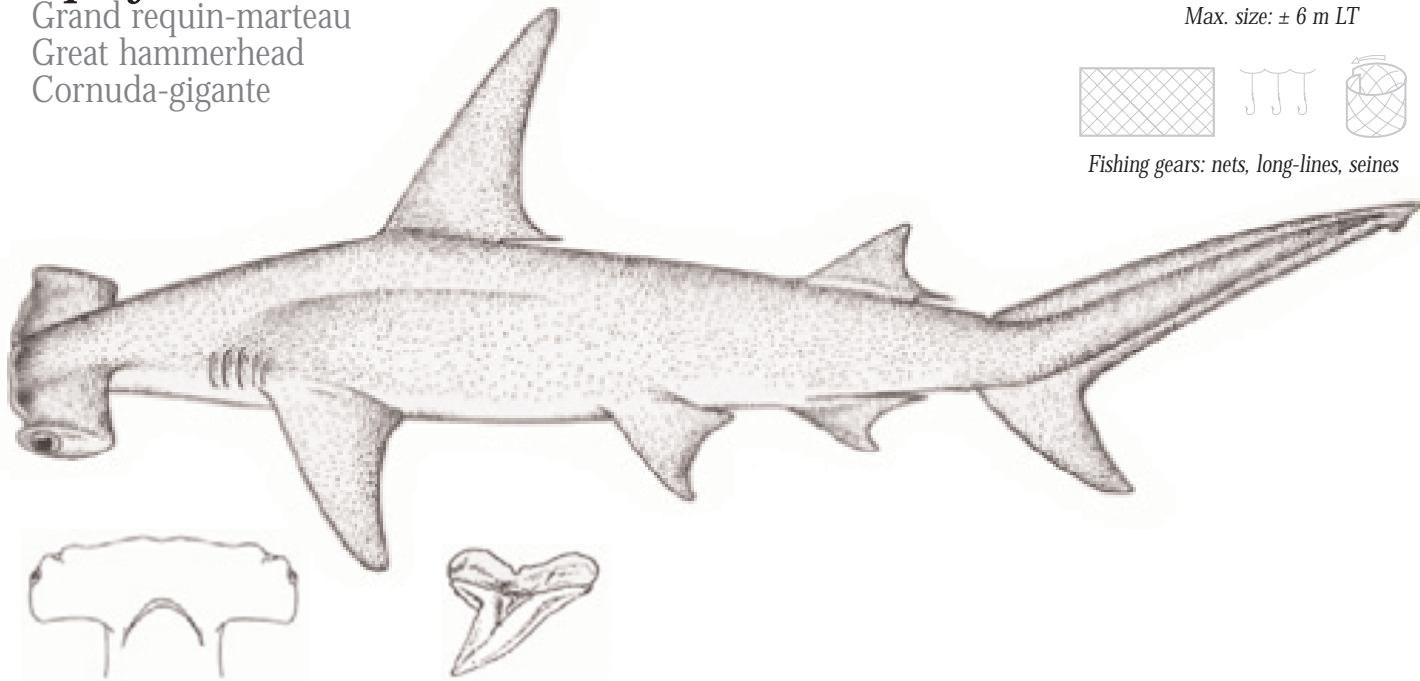
Grand requin-marteau  
Great hammerhead  
Cornuda-gigante



Max. size:  $\pm 6$  m LT

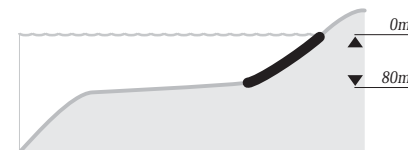


Fishing gears: nets, long-lines, seines



## *Distinctive characteristics:*

Anterior margin of head almost straight, with a weak median notch  
First dorsal fin very high, falciform, with pointed apex  
Posterior margin of pelvic fins concave  
Tip of fins dusky in juveniles



*Habitat: continental shelf*

# *Sphyrna zygaena*

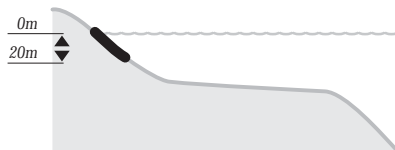
Requin-marteau commun

Smooth hammerhead

Cornuda cruz

Max. size:  $\pm 4$  m LT

Fishing gears: nets, long-lines, seines



Habitat: continental shelf, coastal

## *Distinctive characteristics:*

Anterior margin of head strongly curved, without median notch

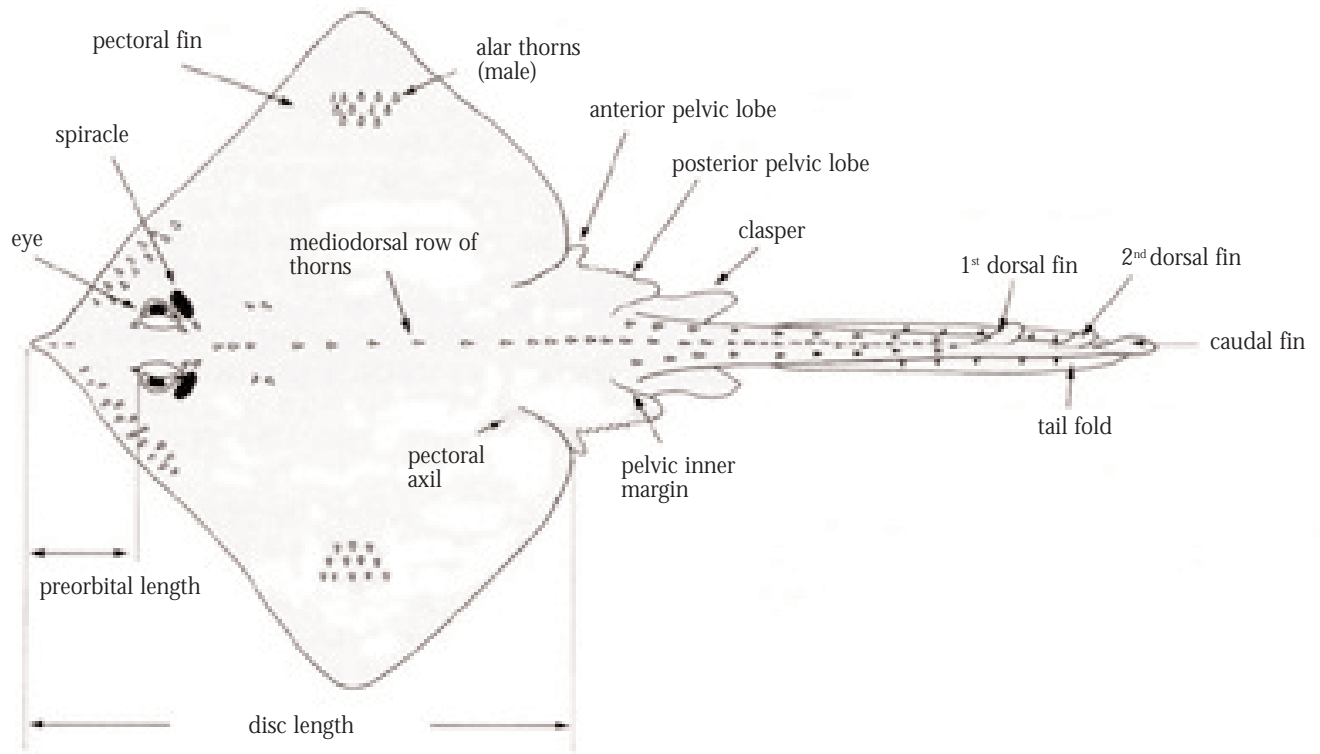
Posterior margin of pelvic fins slightly concave

Fins usually plain coloured (no dusky markings)

# *Rays*



# Ray morphology



Pristidae

# *Pristis microdon*

Poisson-scie grandent  
Greattooth sawfish  
Tubarão-serra  
Pejesierra

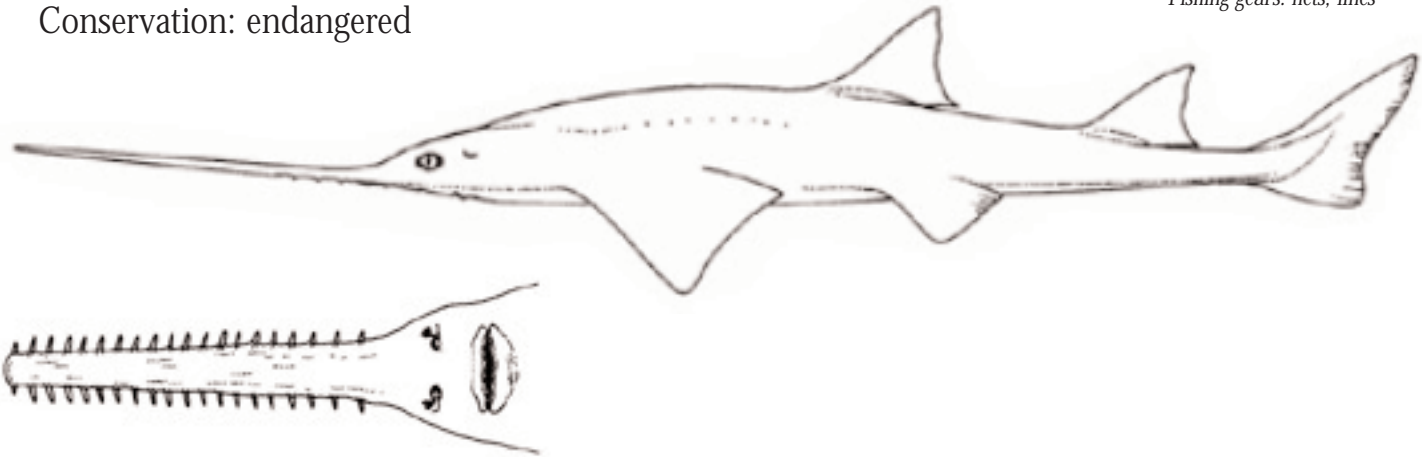
Conservation: endangered



Max. size:  $\pm 7$  m LT

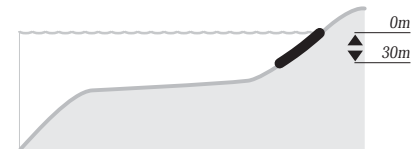


Fishing gears: nets, lines



## *Distinctive characteristics:*

Saw with 14 to 23 pairs of rostral teeth  
Interspace between the posterior rostral teeth 1 to 2 times greater than that between the anterior teeth  
Origin of the first dorsal fin in front of level of the pelvic fin origin  
Caudal fin with a small but distinct ventral lobe



*Habitat: coastal, in estuaries and rivers*

# *Pristis pectinata*

Poisson-scie tident  
Smalltooth sawfish  
Tubarão-serra  
Pejesierra

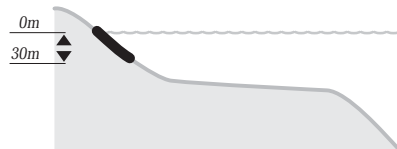
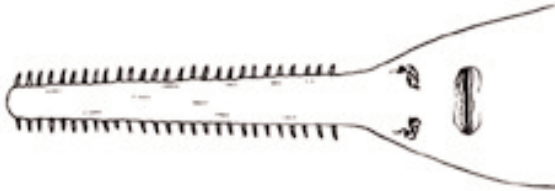
Conservation: endangered



Max. size: ± 7 m LT



Fishing gears: nets, lines



Habitat: coastal, in estuaries and rivers

### *Distinctive characteristics:*

- Saw with 20 to 32 pairs of rostral teeth
- Interspace between the posterior rostral teeth 2 to 4 times greater than that between the anterior teeth
- Origin of the first dorsal fin at level of the pelvic fin origin
- Caudal fin without a distinct ventral lobe

Pristidae

# *Pristis pristis*

Poisson-scie commun

Common sawfish

Tubarão-serra

Pez sierra comùn

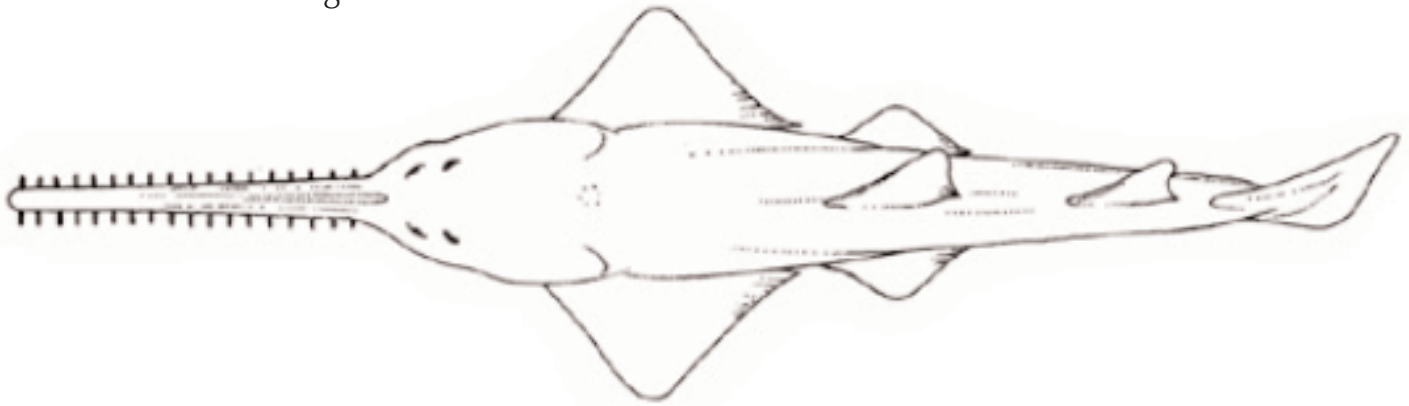
Conservation: endangered



Max. size:  $\pm 7$  m LT



Fishing gears: nets, lines



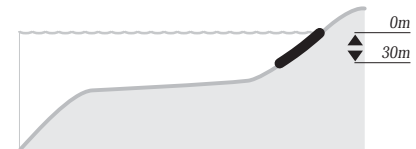
## *Distinctive characteristics:*

Saw with 16 to 20 pairs of rostral teeth

Rostral teeth regularly spaced

Origin of the first dorsal fin at level of the pelvic fin origin

Caudal fin with a weak ventral lobe



*Habitat: coastal, in estuaries and rivers*

# Rhynchobatus lübberti

Poisson-paille africain

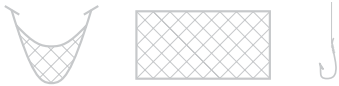
African wedgefisch

Viola-de-cunha

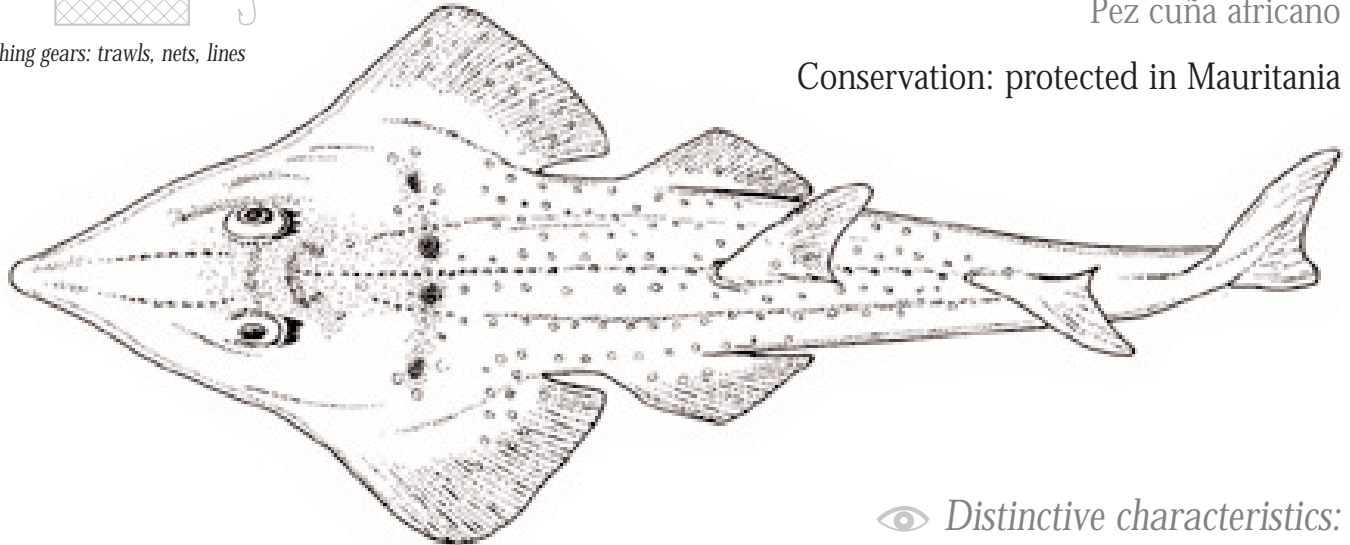
Pez cuña africano



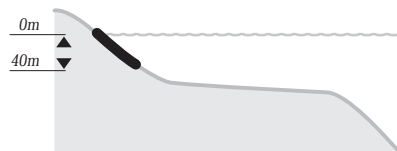
Max. size: ± 3 m LT



Fishing gears: trawls, nets, lines



Conservation: protected in Mauritania



Habitat: coastal, on the bottom

## Distinctive characteristics:

Snout pointed

Caudal fin with differentiated dorsal and ventral lobes  
Spiracle with 2 dermal folds on their posterior margin

Several rows of thorny tubercles on back, shoulders and on the rostral cartilages

Back light brownish with light circular blotches, circled of black, and 2 large blackish blotches on shoulders

Rhinobatidae

# *Rhinobatos (Rhinobatos) albomaculatus*

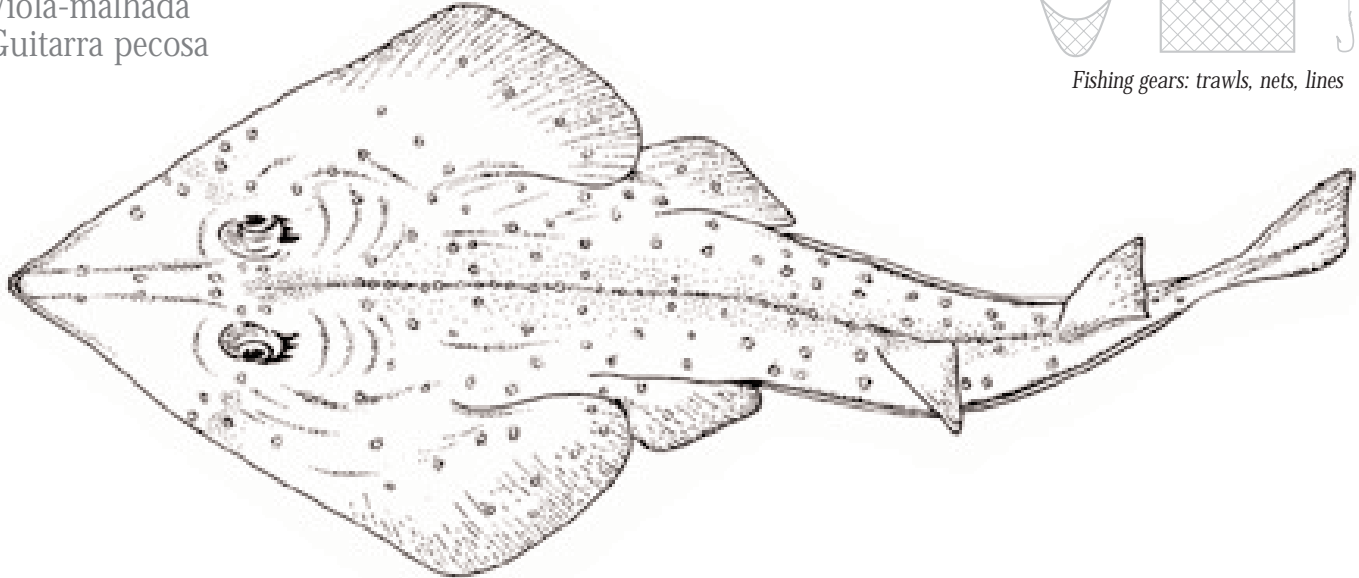
Raie-guitare à lunaires  
Whitespotted guitarfish  
Viola-malhada  
Guitarra pecosa



Max. size: 80 cm LT

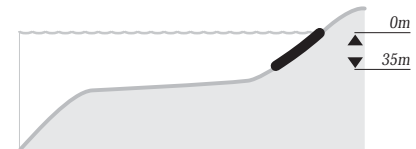


Fishing gears: trawls, nets, lines



## *Distinctive characteristics:*

Snout pointed  
Rostral cartilages well separated on their whole length  
Spiracle with 2 dermal folds on their posterior margin  
Numerous small, circular, white blotches, circled of black and symmetrically arranged



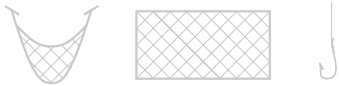
*Habitat: coastal, on the bottom*

# Rhinobatos (*Acroteriobatus*) *blochii*

Raie-guitare de Bloch  
Bluntnose guitarfish  
Guitarra embocada

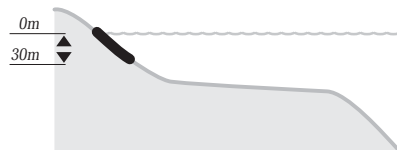
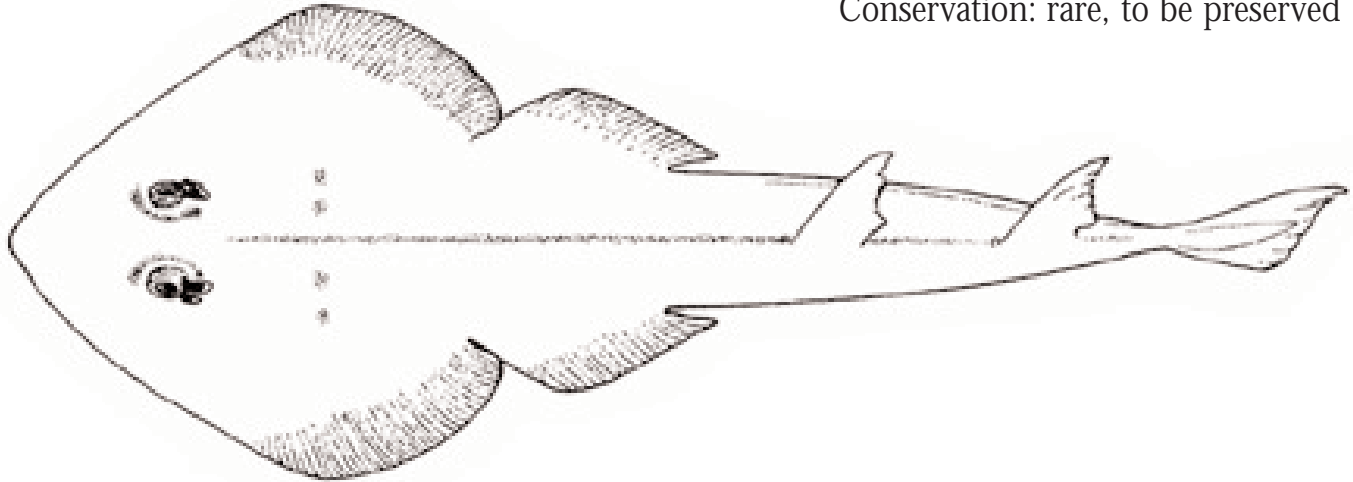


Max. size: 100 cm LT



Fishing gears: trawls, nets, lines

Conservation: rare, to be preserved



Habitat: coastal; on the bottom

## Distinctive characteristics:

- Snout obtuse
- Nasal valves extending onto the internasal space and almost connected
- Spiracle with a single dermal fold on its posterior margin
- Colour plain brownish; juveniles with a few small, light blotches

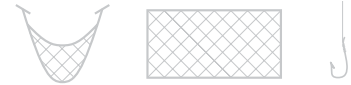
Rhinobatidae

# *Rhinobatos (Glaucostegus) cemiculus*

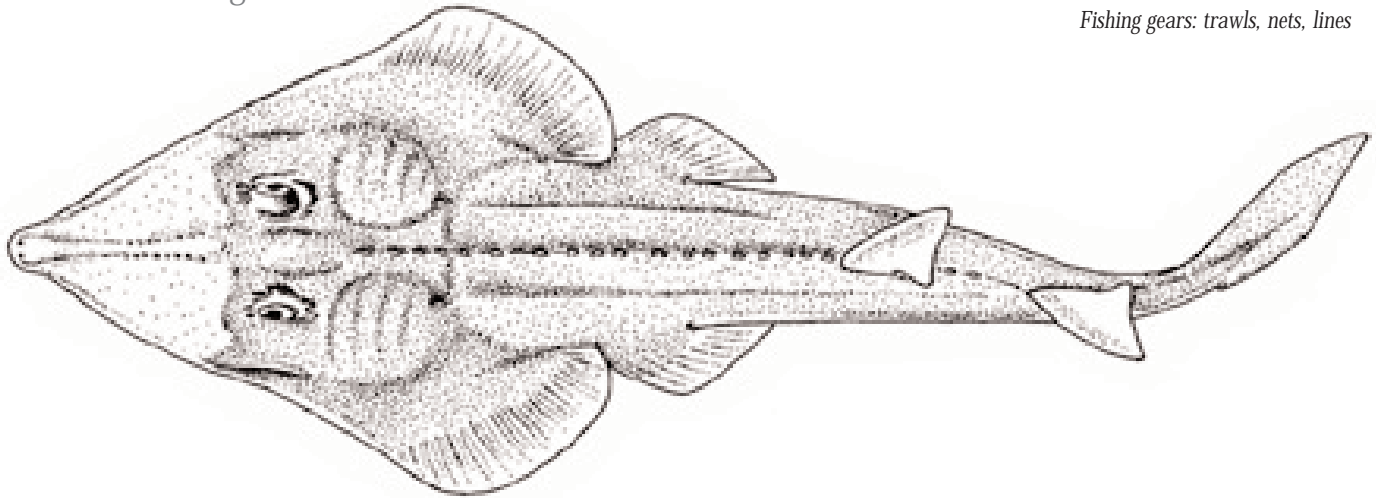
Raie-guitare fousseuse  
Blackchin guitarfish  
Viola-barba-negra  
Guitarra barbanegra



Max. size: 265 cm LT



Fishing gears: trawls, nets, lines



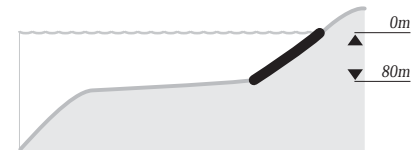
## *Distinctive characteristics:*

Snout pointed

Rostral cartilages separated by a narrow space, and getting closer forwards

Spiracle with 2 dermal folds on its posterior margin

Colour plain light brownish; usually a black blotch on tip on snout  
(on ventral surface)



*Habitat: coastal, on the bottom*

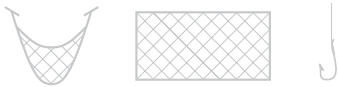


# Rhinobatos (*Rhinobatos*) *irvinei*

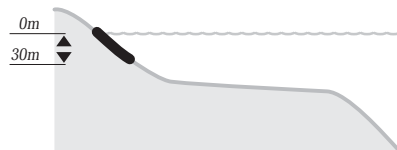
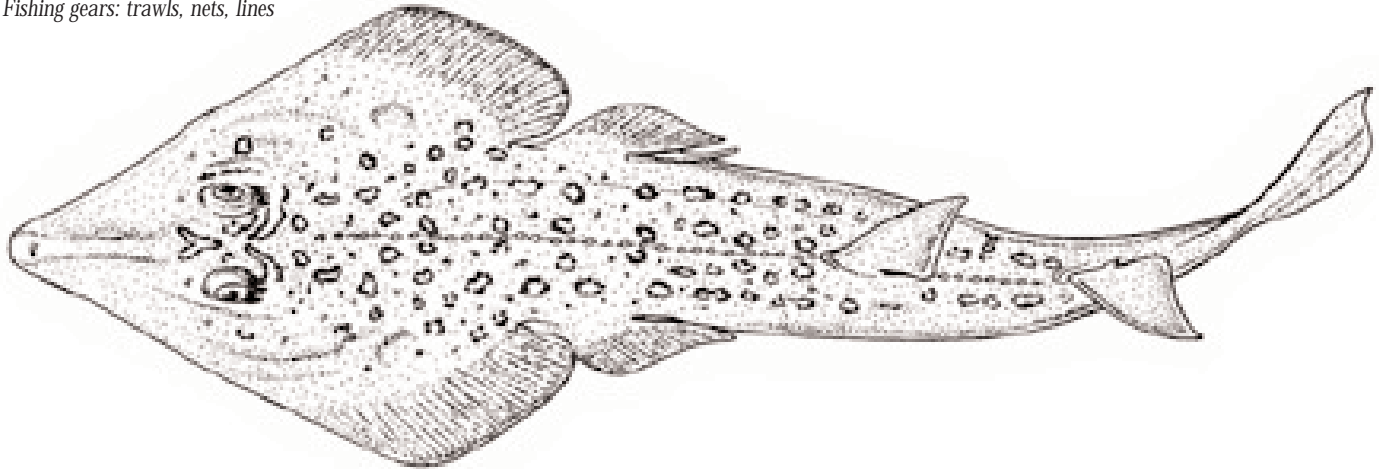
Raie-guitare d'Irvine  
Spineback guitarfish  
Irvine guitarra



Max. size: 100 cm LT



Fishing gears: trawls, nets, lines



Habitat: coastal, on the bottom

## Distinctive characteristics:

- Snout pointed
- Rostral cartilages well separated on their whole length
- Spiracles with 2 dermal folds on their posterior margin
- Back greenish brown with numerous irregular, light blotches, circled of black and forming an X between the eyes

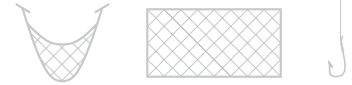
Rhinobatidae

# *Rhinobatos (Rhinobatos) rhinobatos*

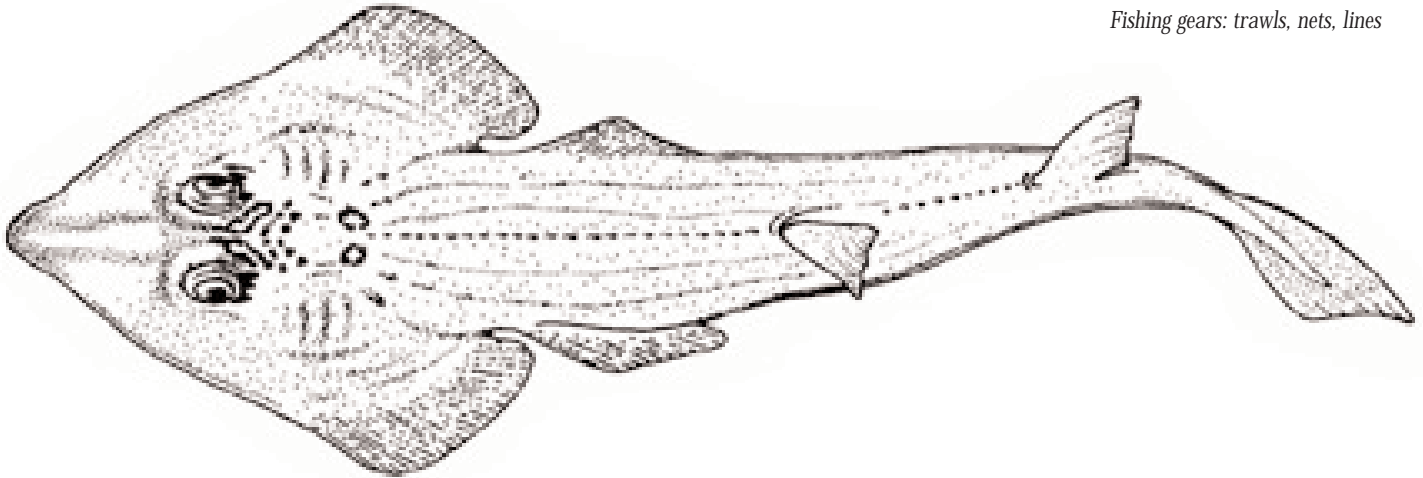
Raie-guitare commune  
Common guitarfish  
Guitarra comum



Max. size: 100 cm LT

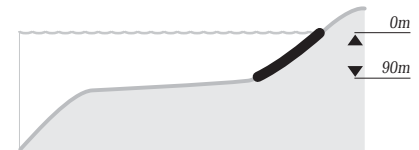


Fishing gears: trawls, nets, lines



## *Distinctive characteristics:*

Snout pointed  
Rostral cartilages well separated on their whole length  
Spiracles with 2 dermal folds on their posterior margin  
Colour greenish brown, or reddish brown with faded greenish stripes, sometimes forming a V or an X between the eyes



Habitat: coastal, on the bottom

# Zanobatus schoenleinii

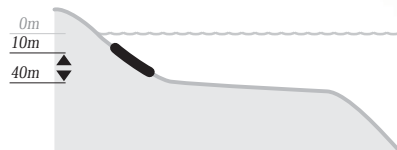
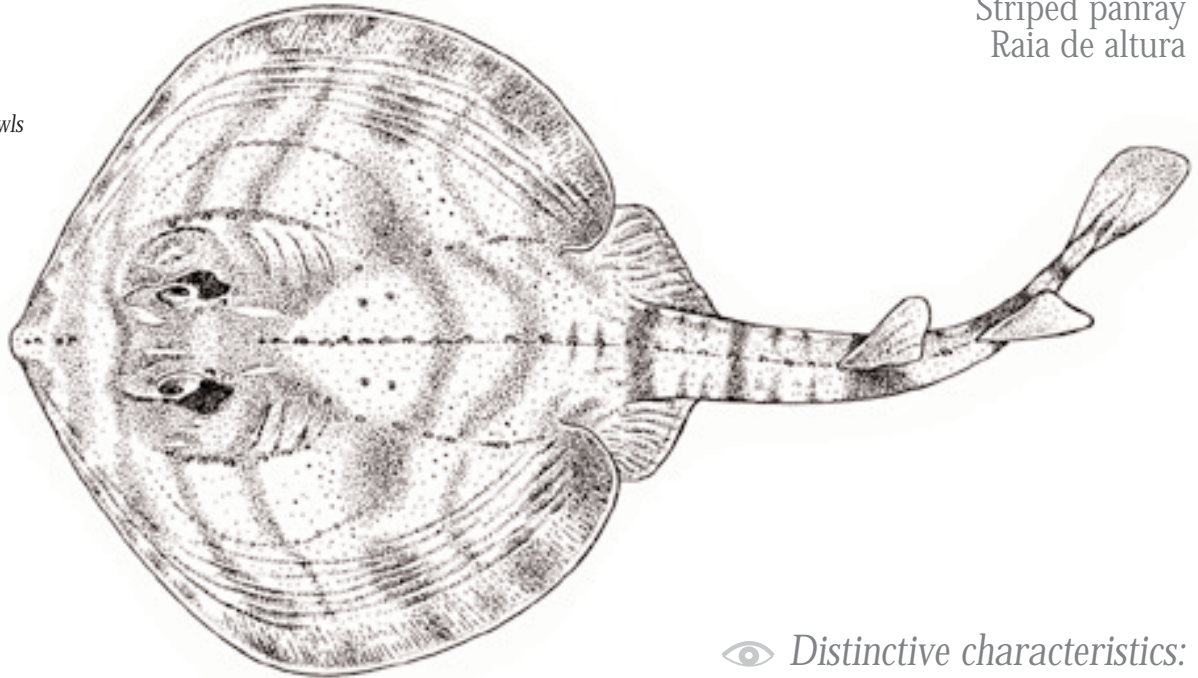
Raie tigrée  
Striped panray  
Raia de altura



Max. size: 60 cm LT



Fishing gears: trawls



Habitat: coastal, on the bottom

## Distinctive characteristics:

Disc almost circular with an obtuse snout

Tail well marked off the disc

Concentric circles of small thorny tubercles on disc

Back greyish brown to greenish brown with dark brown transversal stripes; skin with a silky aspect

Torpedinidae

# *Torpedo (Torpedo) marmorata*

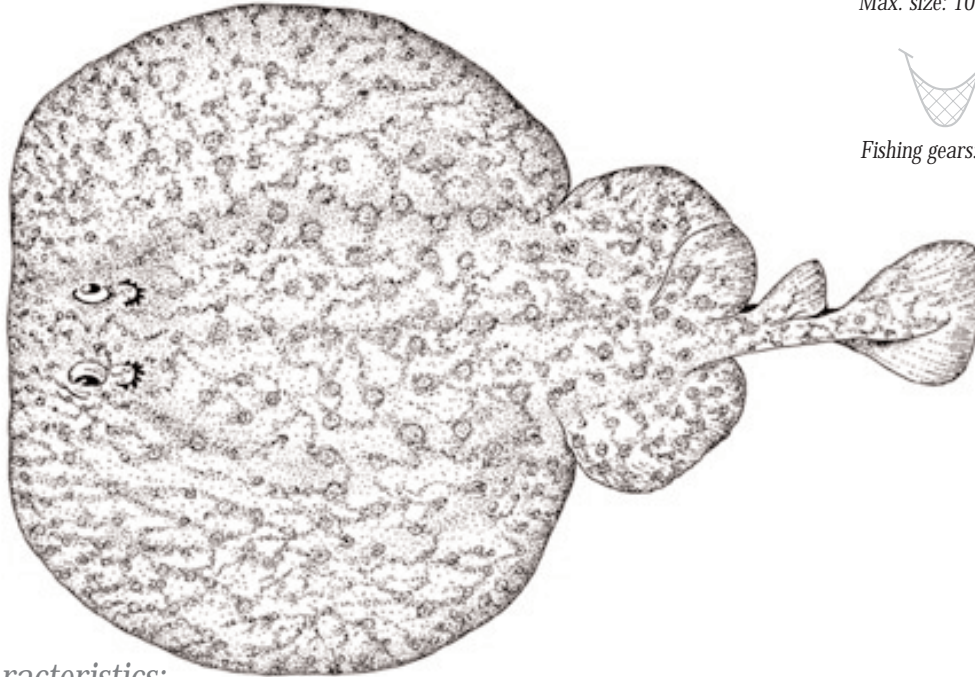
Torpille marbrée  
Spotted torpedo  
Dormideira



Max. size: 100 cm LT



Fishing gears: trawls



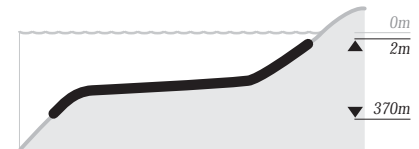
## *Distinctive characteristics:*

Disc almost circular and fleshy

Skin totally naked

Spiracle with 6-8 tentacles

Colour variable, background reddish brown with brown marbles and irregular blotches



Habitat: coastal, on the bottom

Torpedinidae

# Torpedo (*Torpedo*) torpedo

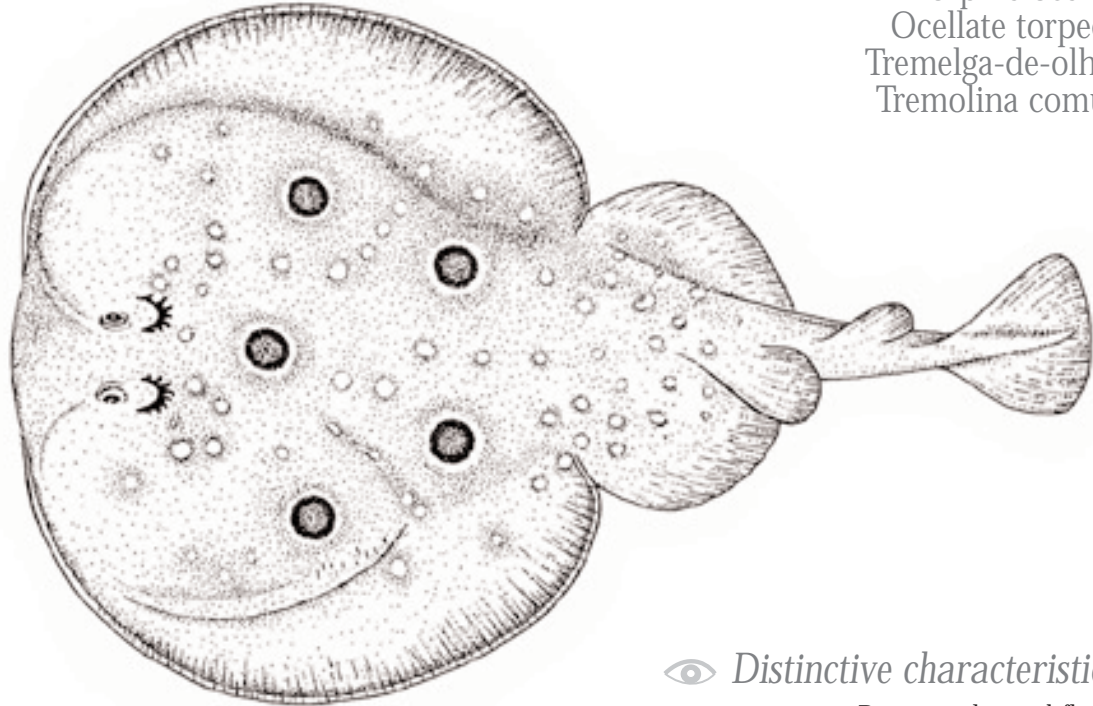
Torpille ocellée  
Ocellate torpedo  
Tremelga-de-olhos  
Tremolina comùn



Max. size: 60 cm LT



Fishing gears: trawls



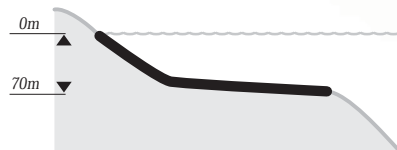
## Distinctive characteristics:

Disc circular and fleshy

Skin totally naked

Spiracle with tentacles often reduced to knobs

Back brown to reddish brown, usually with 5 large blue ocelli ,  
circled by black and yellow rings



Habitat: coastal, on the bottom

Torpedinidae

# *Torpedo (Torpedo) bauchotae*

Torpille à rosettes  
Rosette torpedo  
Tremelga roseta

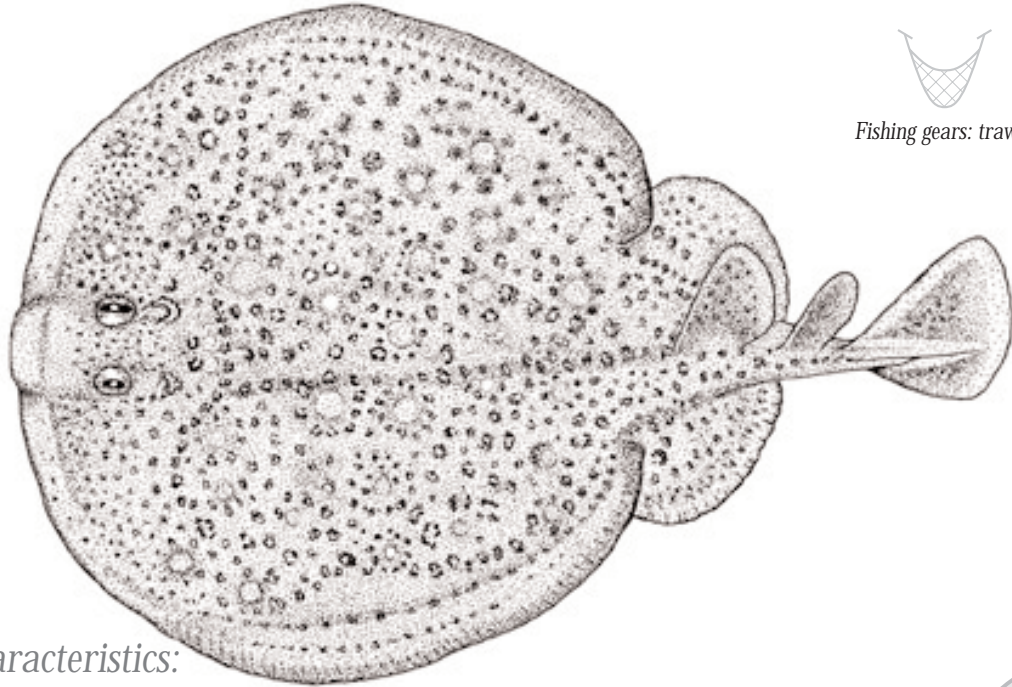
Rare: should  
be preserved



Max. size: 60 cm LT



Fishing gears: trawls



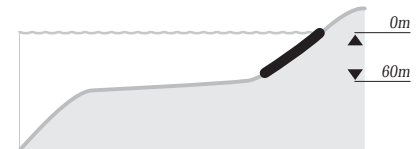
## *Distinctive characteristics:*

Disc circular and fleshy

Skin totally naked

Spiracle with 9 – 11 small tentacles not converging to centre of spiracle

Dorsal colour very variegated with numerous light  
and dark blotches forming rosettes



Habitat: coastal, on the bottom

# Torpedo (Tetronarce) mackayana

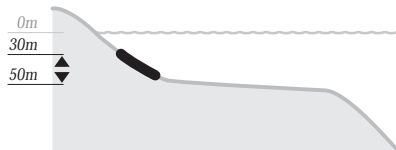
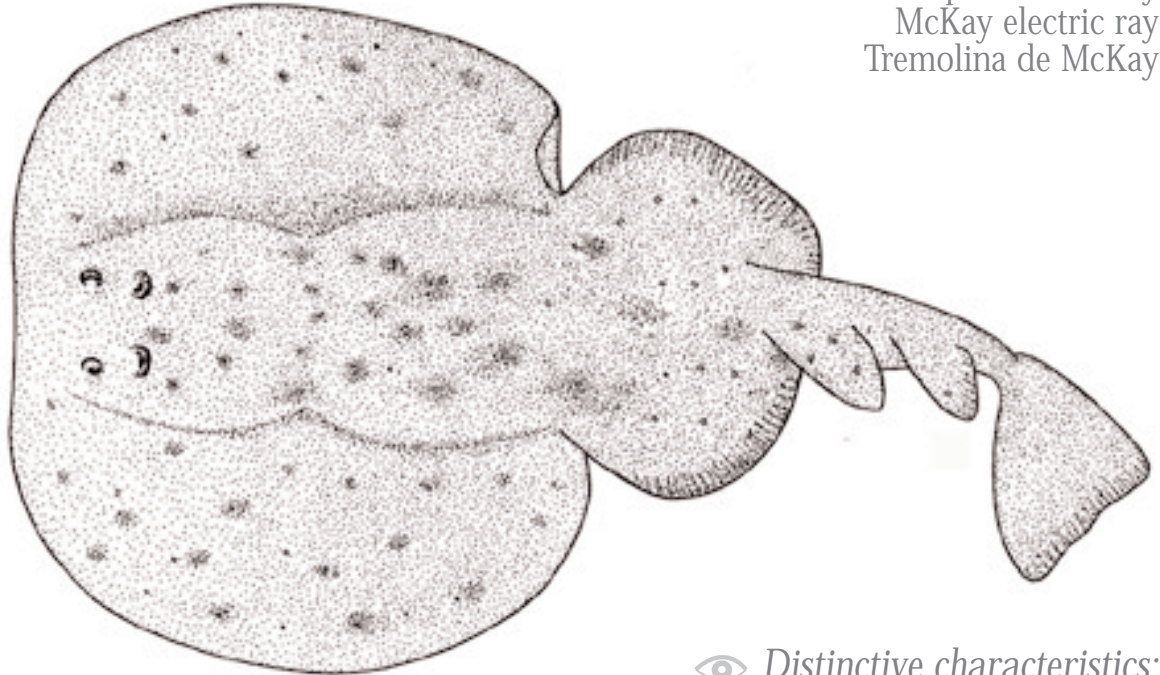
Torpille de McKay  
McKay electric ray  
Tremolina de McKay



Max. size: 40 cm LT



Fishing gears: trawls



Habitat: coastal, on the bottom

## Distinctive characteristics:

- Disc circular and fleshy
- Skin totally naked
- Spiracle with smooth margin, without any tentacles
- Back greyish brown with a few small, irregular, brown or white blotches, scattered on disc and tail

Rajidae

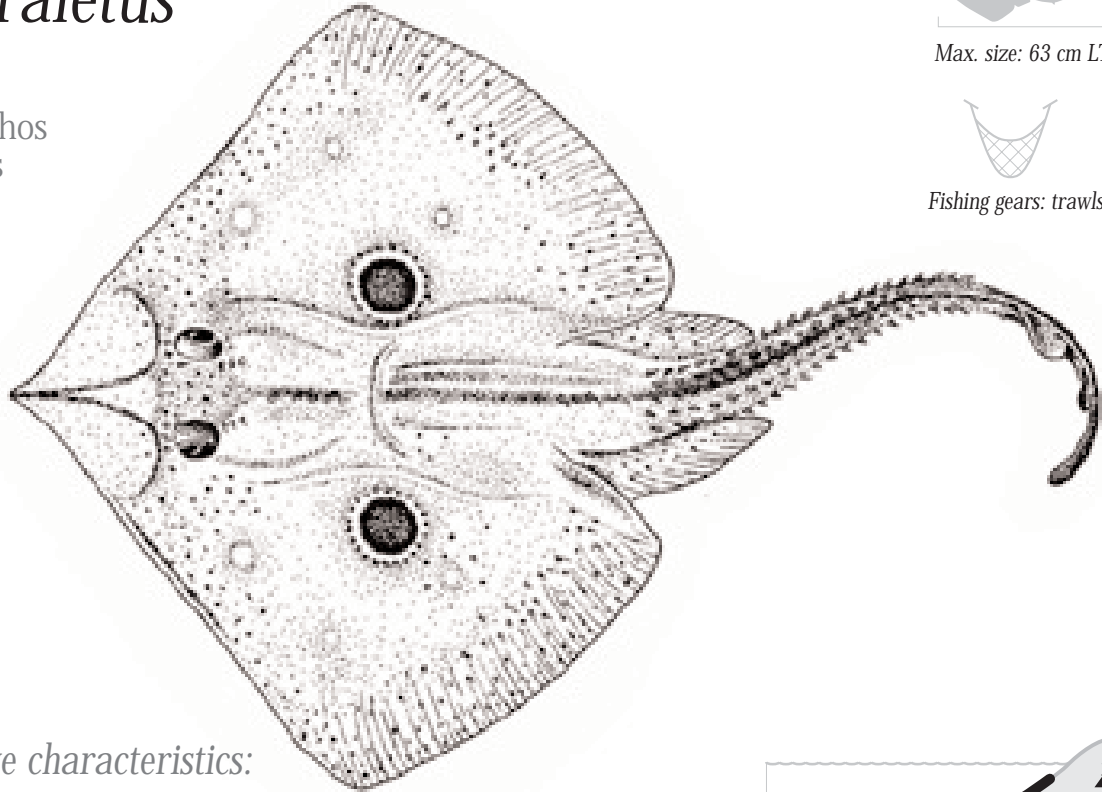
# *Raja miraletus*

Raie-miroir

Twineye skate

Raia-de-dois-olhos

Raya de espejas



Max. size: 63 cm LT



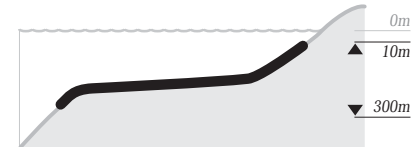
Fishing gears: trawls

## *Distinctive characteristics:*

Disc lozenge with a pointed snout

Back and tail covered with thorny denticles and strong thorns

Back ochre brown with small black blotches scattered on disc and a large tricolour ocellus on each pectoral centre



*Habitat: continental shelf, on the bottom*



Rajidae

# *Raja straeleni*

Raie tachetée

Biscuit skate

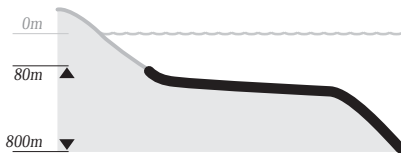
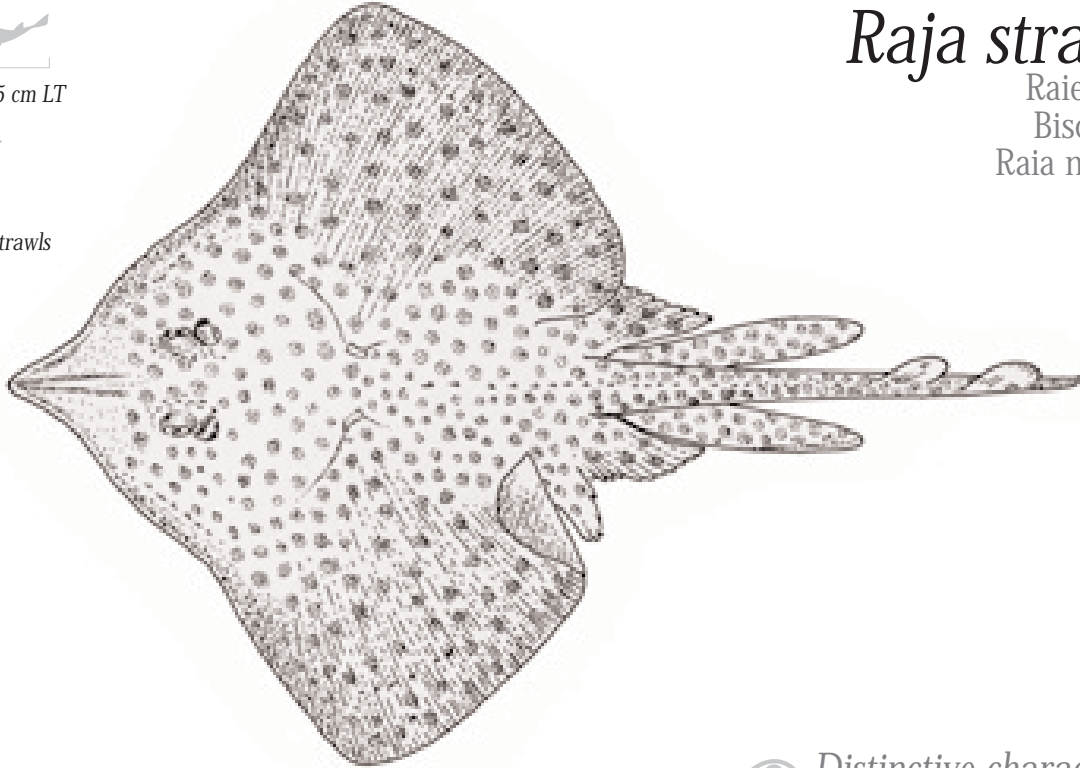
Raia manchada



Max. size: 85 cm LT



Fishing gears: trawls



Habitat: outer shelf and continental slope

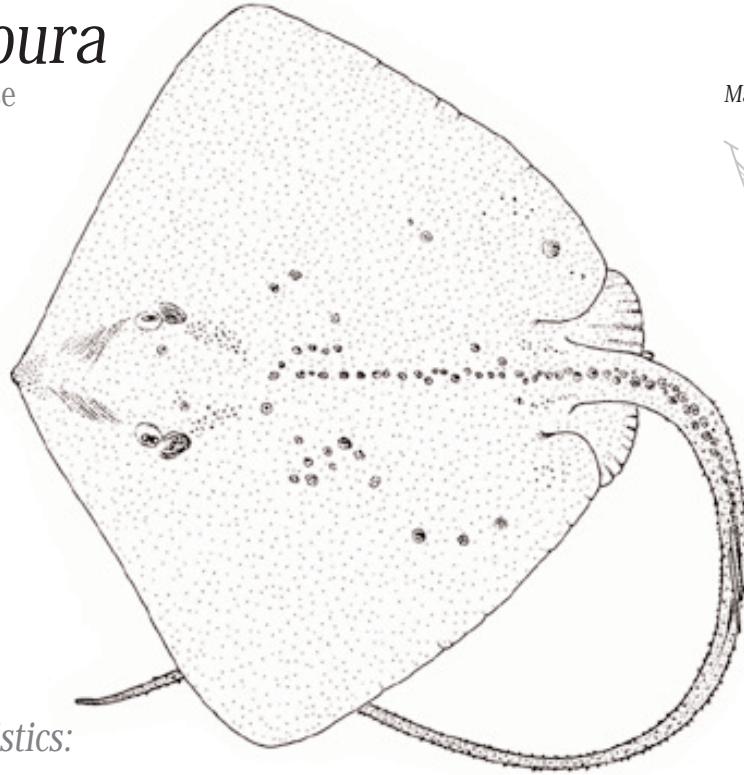
## *Distinctive characteristics:*

Disc lozenge with a pointed snout  
Back and tail covered with thorny denticles, strong thorns above eyes,  
on nape and shoulders; a mediodorsal row from nape to first dorsal fin  
Back brown with black blotches and spots, symmetrically arranged,  
sometimes forming rosettes in the centre of the pectoral fins

Dasyatidae

# *Dasyatis centroura*

Pastenague à queue épineuse  
Roughtail stingray  
Uge-de-cardas  
Raya latigo isleña



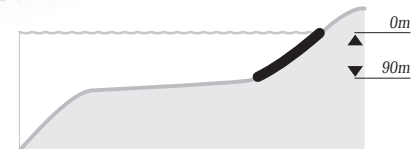
Max. size:  $\pm 2$  m disc width



Fishing gears: trawls,  
bottom long-lines

## *Distinctive characteristics:*

Disc lozenge, snout obtuse  
Tail whip-like, very thorny, with strong sting at base  
A low dorsal keel below the sting  
A cutaneous fold under the tail  
Back rough with large thorny tubercles scattered on disc  
Colour plain brown or greenish brown



*Habitat: continental shelf, on the bottom*

Dasyatidae

# *Dasyatis margarita*

Pastenague -marguerite

Daisy stingray

Uge-margarida

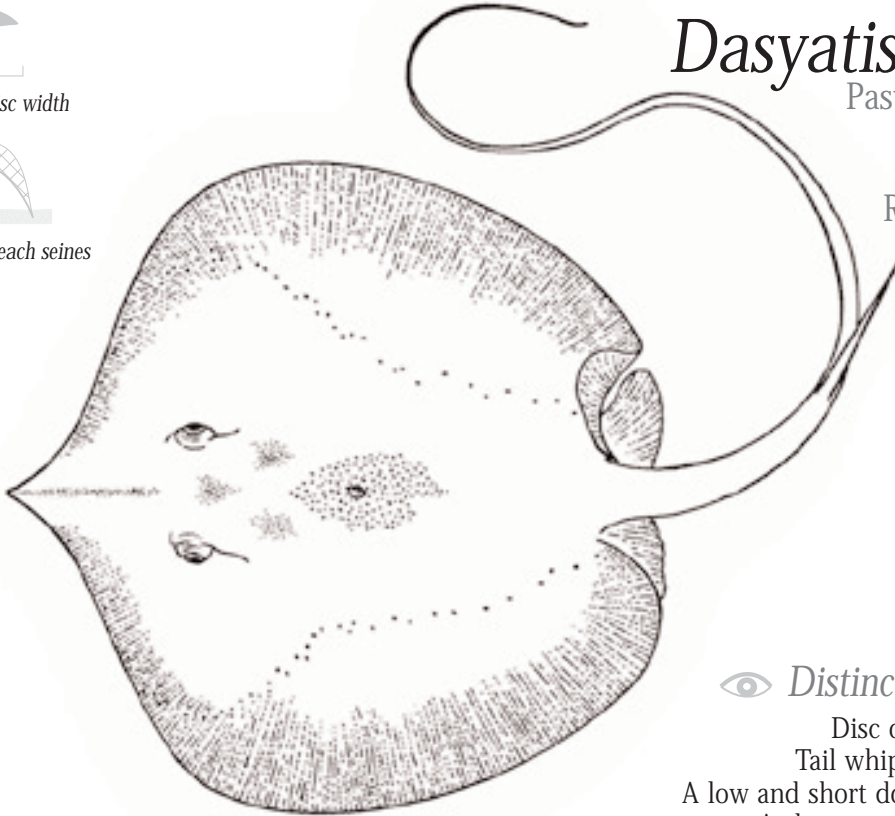
Raya-latigo margarita



Max. size: 65 cm disc width



Fishing gears: trawls, beach seines



## *Distinctive characteristics:*

Disc oval with a pointed snout

Tail whip-like with a sting at base

A low and short dorsal keel below the sting

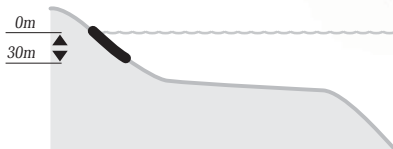
A short cutaneous fold under the tail

A central belt of rounded denticles, developing with growth

A large pearl-like tubercle in the middle of the back

Jaws strongly undulated

Colour plain light brown



Habitat: coastal, on the bottom

Dasyatidae

# *Dasyatis margaritella*

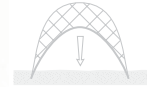
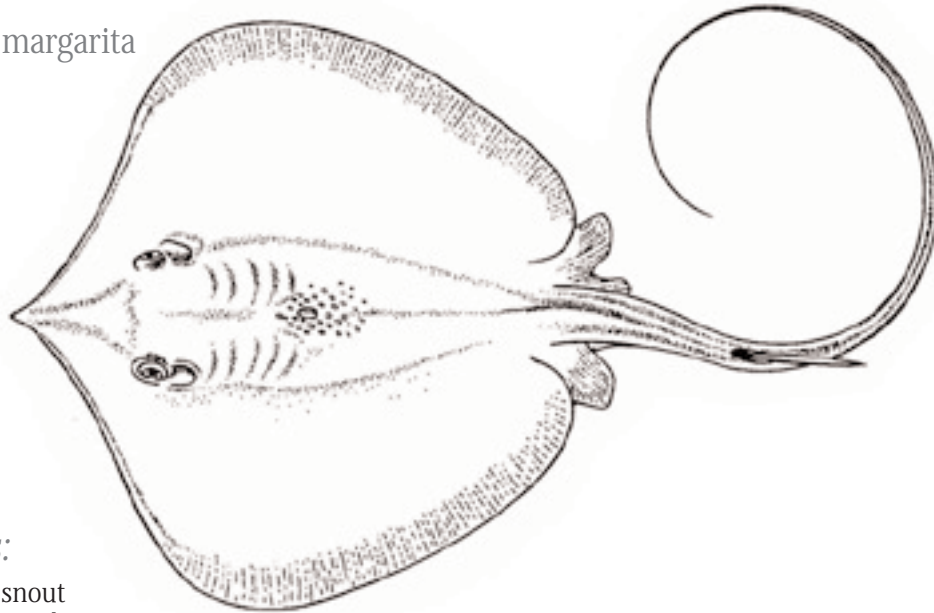
Pastenague perlée

Pearl stingray

Pequeña raya-latigo margarita



Max. size: 30 cm disc width



Fishing gears:  
nets,  
beach seines

## *Distinctive characteristics:*

Disc oval with a pointed snout

Tail whip-like with a sting at base

A low and short dorsal keel below the sting

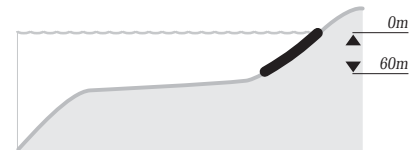
A short cutaneous fold under the tail

A central belt of rounded denticles, developing with growth

A large pearl-like tubercle in the middle of the back

Jaws weakly undulated

Colour plain light brown



Habitat: continental shelf, on the bottom

Dasyatidae

# *Dasyatis pastinaca*

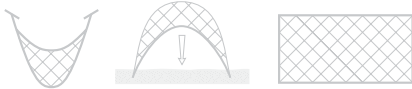
Pasténague commune

Common stingray

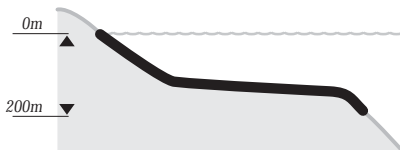
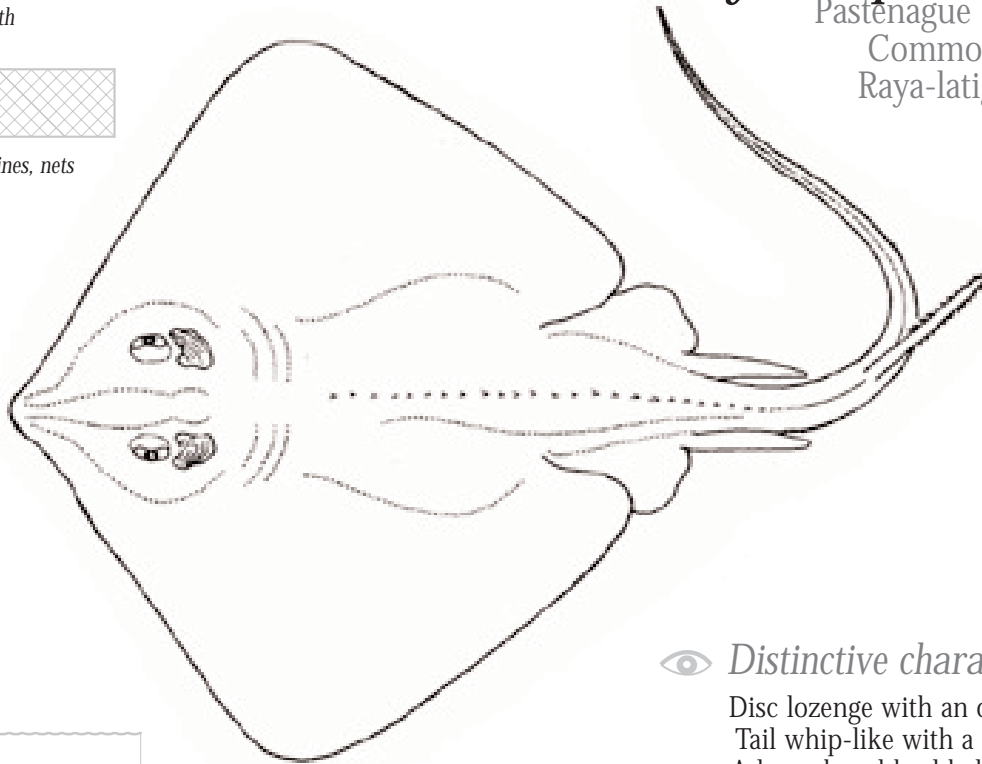
Raya-latigo comùn



Max. size: 140 cm disc width



Fishing gears: trawls, beach seines, nets



Habitat: continental shelf, on the bottom

## *Distinctive characteristics:*

Disc lozenge with an obtuse snout

Tail whip-like with a sting at base

A long dorsal keel below the sting

A long cutaneous fold under the tail

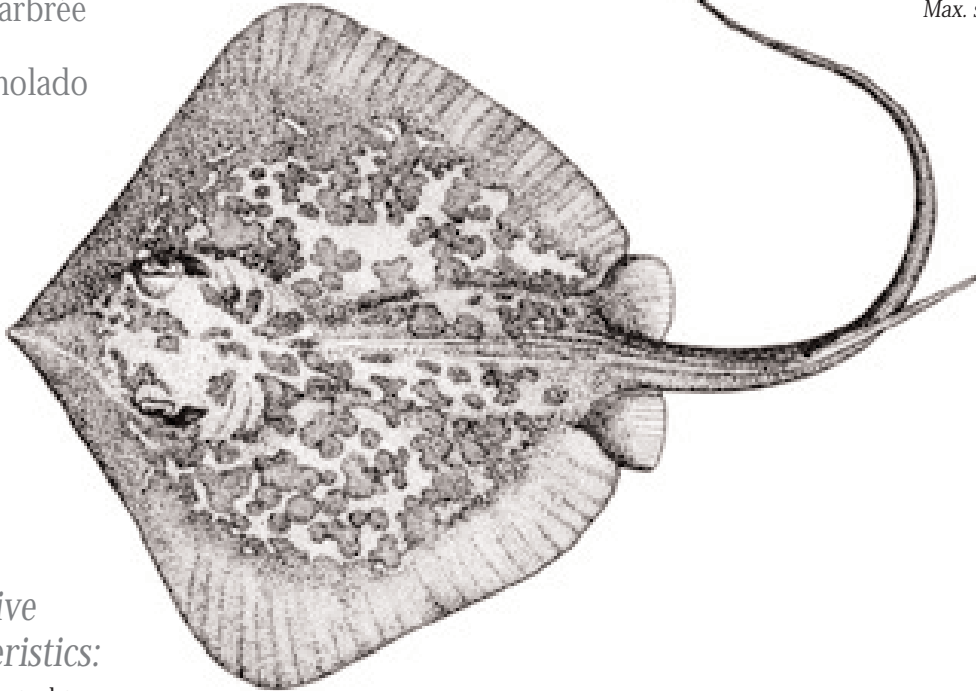
Skin naked except for a mediodorsal row of small thorny tubercles

Colour plain greyish or greenish brown

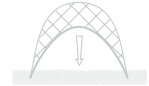
Dasyatidae

# *Dasyatis marmorata*

Pastenague marbrée  
Blue stingray  
Chucho marmolado



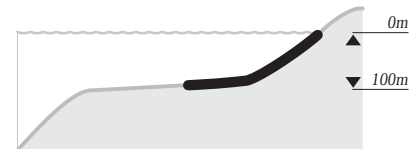
Max. size: 75 cm disc width



Fishing gears: trawls,  
beach seines, nets

## *Distinctive characteristics:*

Disc lozenge, snout obtuse  
Tail whip-like with a sting at base  
A short dorsal keel below the sting  
A cutaneous fold under the tail twice as long as the sting  
Skin totally naked  
Back brownish with blue and golden marbles



*Habitat: continental shelf, on the bottom*

Dasyatidae

# Taeniura grabata

Pastenague africaine

Round stingray

Ratão

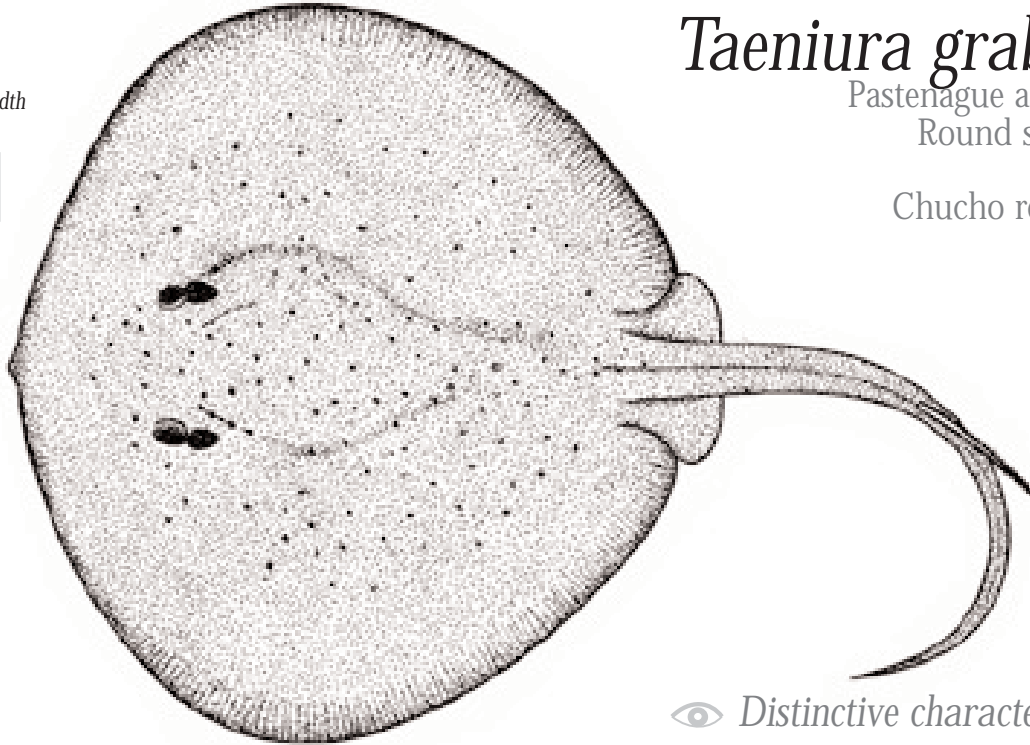
Chucho redondo



Max. size: 100 cm disc width



Fishing gears: trawls, nets



## Distinctive characteristics:

Disc almost circular

Tail relatively short and thick, with a sting

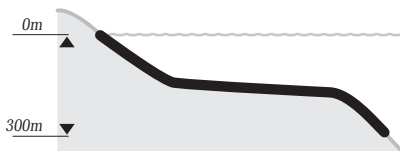
No dorsal keel below the sting

A cutaneous fold under the tail

Back rough with a few large thorny tubercles

Colour plain brown to reddish brown,

with small black blotches in juveniles



Habitat: continental shelf, on the bottom

Gymnuridae

# Gymnura altavela

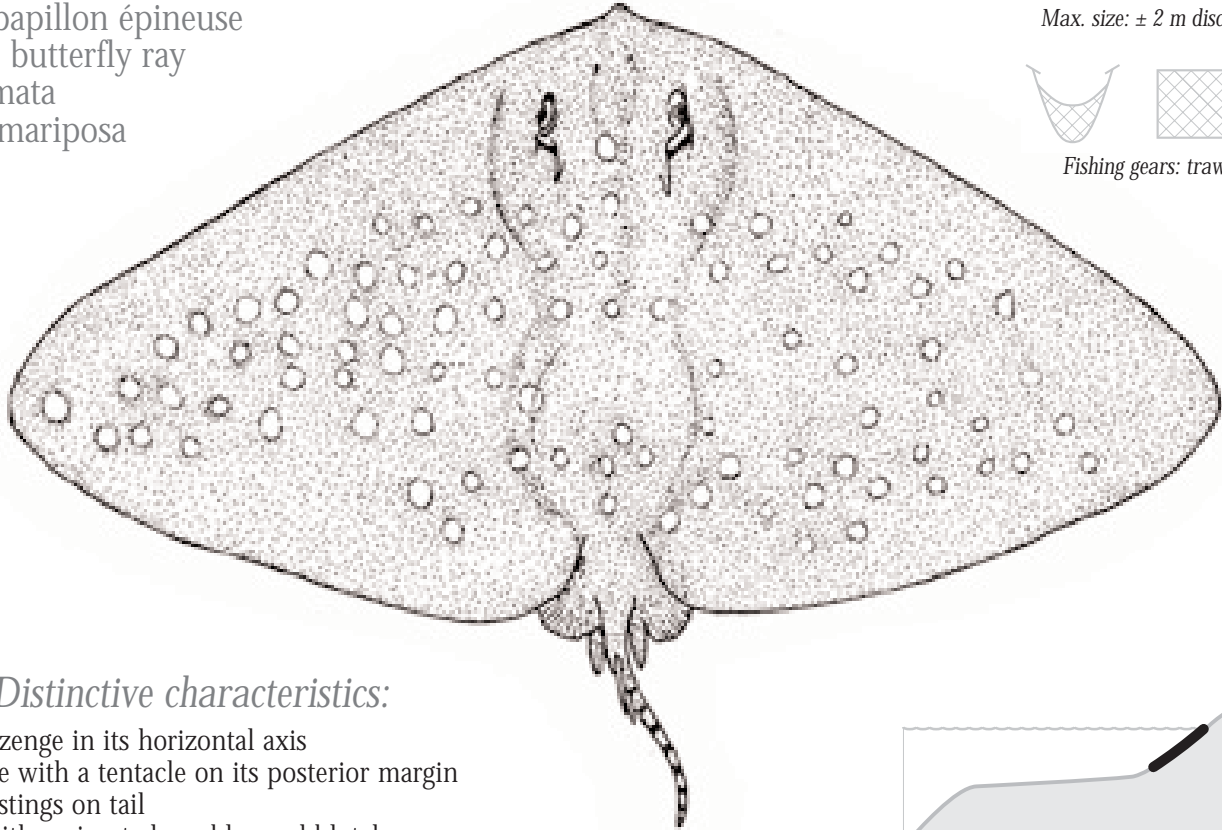
Raie-papillon épineuse  
Spiny butterfly ray  
Uge-mata  
Raya mariposa



Max. size:  $\pm 2$  m disc width

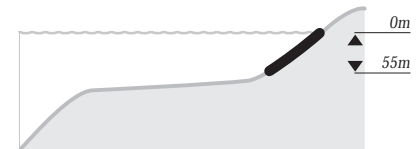


Fishing gears: trawls, nets



## Distinctive characteristics:

- Disc lozenge in its horizontal axis
- Spiracle with a tentacle on its posterior margin
- 1 or 2 stings on tail
- Back with variegated marbles and blotches
- Tail with transversal bands, alternatively light and dark



Habitat: coastal, on the bottom



# Gymnura micrura

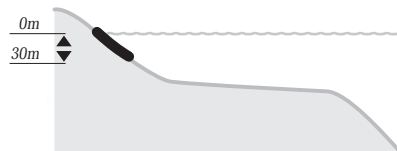
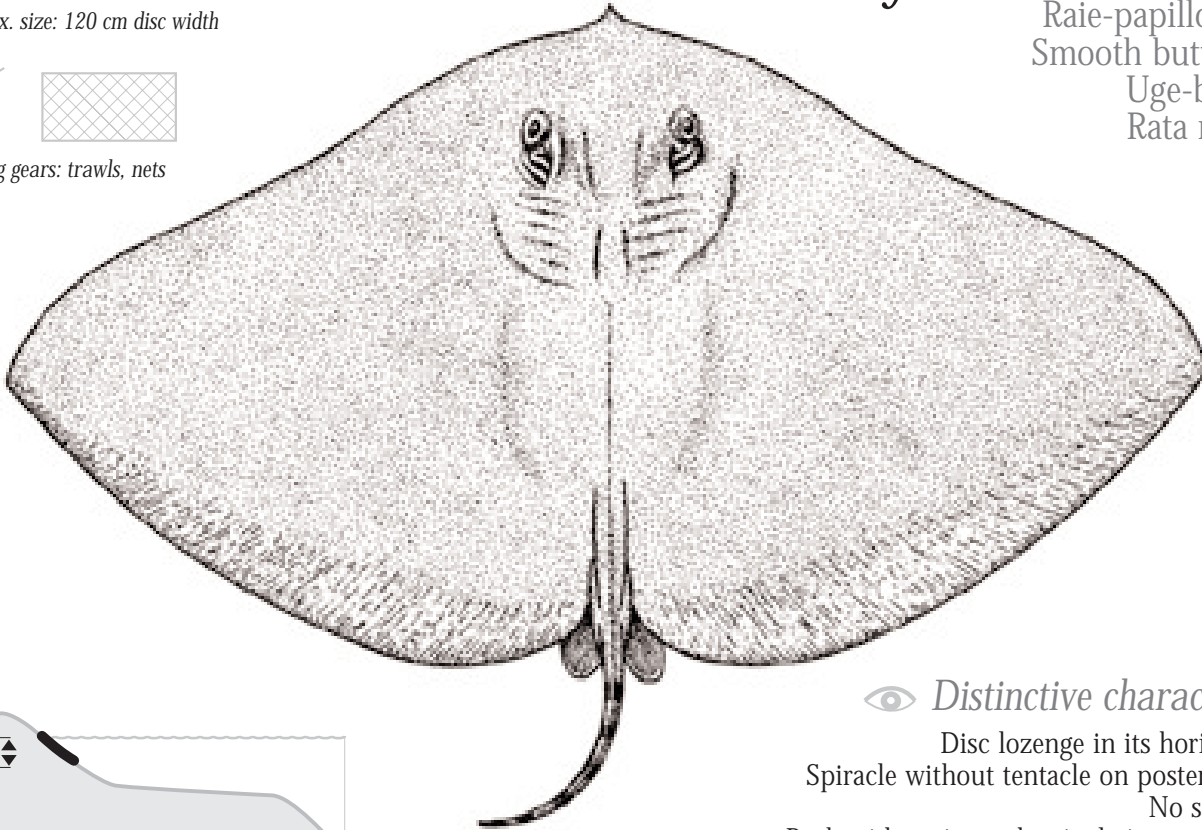
Raie-papillon glabre  
Smooth butterfly ray  
Uge-borboleta  
Rata mariposa



Max. size: 120 cm disc width



Fishing gears: trawls, nets



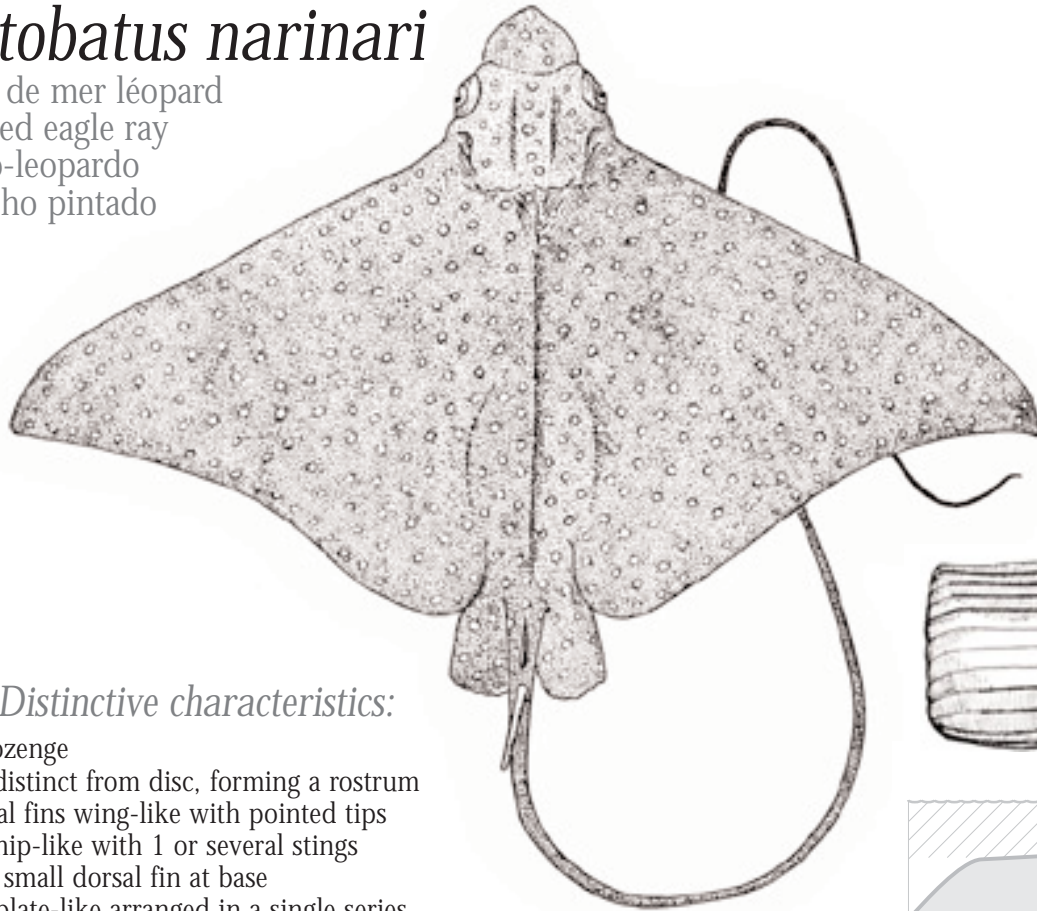
Habitat: coastal, on the bottom

## Distinctive characteristics:

- Disc lozenge in its horizontal axis
- Spiracle without tentacle on posterior margin
- No sting on tail
- Back with variegated reticulations and blotches
- Tail with only 3 – 4 transversal bands, light and dark

# *Aetobatus narinari*

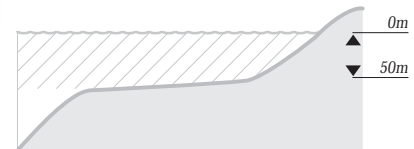
Aigle de mer léopard  
Spotted eagle ray  
Ratão-leopardo  
Chucho pintado



Max. size: 230 cm disc width



Fishing gears: trawls,  
nets, seines, lines



Habitat: coastal, on the bottom and in open water

## Distinctive characteristics:

- Disc lozenge
- Head distinct from disc, forming a rostrum
- Pectoral fins wing-like with pointed tips
- Tail whip-like with 1 or several stings and a small dorsal fin at base
- Teeth plate-like arranged in a single series
- Back greyish brown with numerous light blotches

# Myliobatis aquila

Aigle de mer commun

Common eagle ray

Chuco

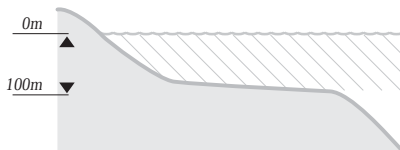
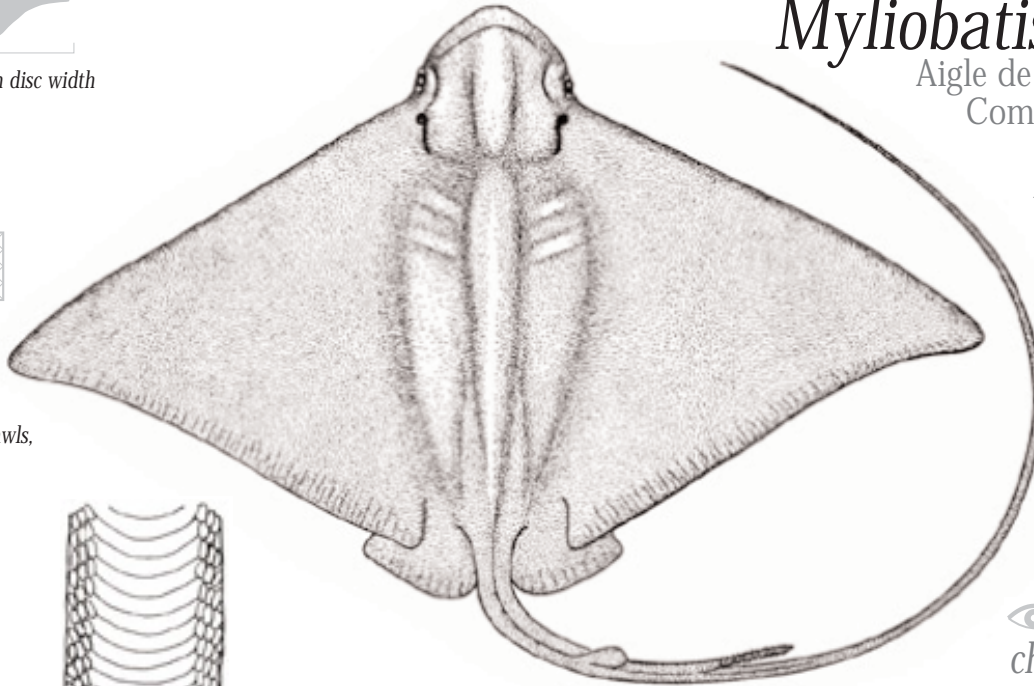
Aquila marina



Max. size: 100 cm disc width



Fishing gears: trawls,  
nets, seines



Habitat: coastal, on the bottom and in open water

 **Distinctive characteristics:**

Disc lozenge

Head distinct from disc, forming a rostrum

Pectoral fins wing-like with pointed tips

Tail whip-like with 1 or several stings  
and a small dorsal fin at base

Teeth plate-like arranged in 7 series

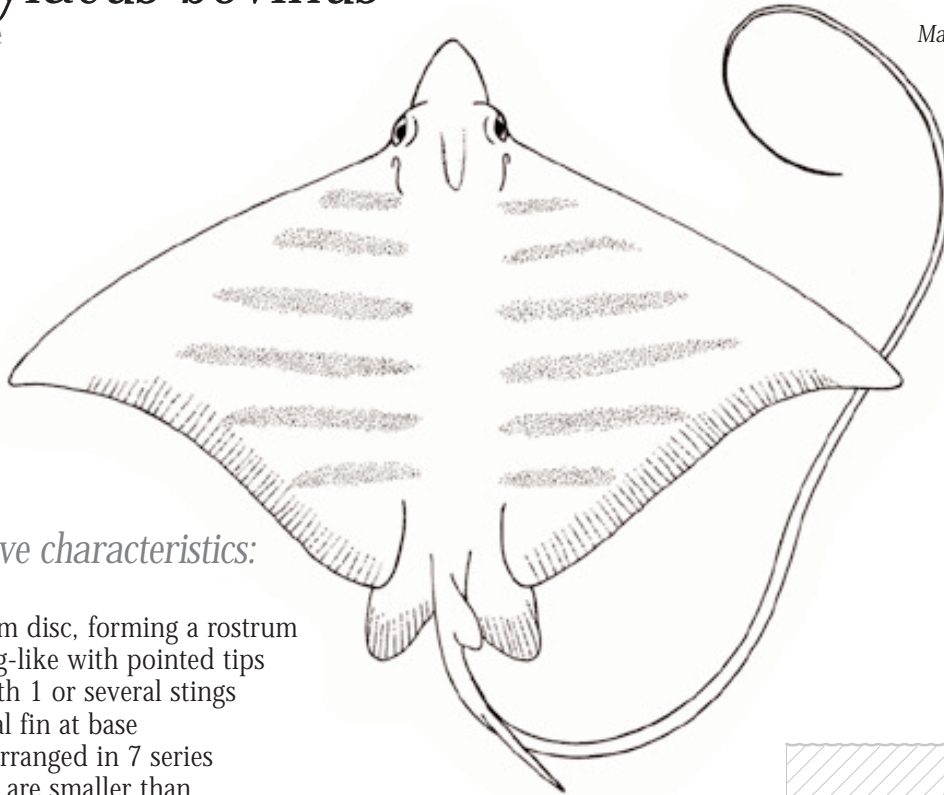
The lateral plates are smaller than the median one

Colour plain greenish brown or yellowish

Myliobatidae

# *Pteromylaeus bovinus*

Aigle-vachette  
Bullray  
Bispo  
Cuhcho vaca



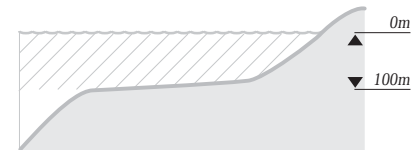
Max. size: 150 cm disc width



Fishing gears: trawls,  
nets, seines

## *Distinctive characteristics:*

Disc lozenge  
Head distinct from disc, forming a rostrum  
Pectoral fins wing-like with pointed tips  
Tail whip-like with 1 or several stings  
and a small dorsal fin at base  
Teeth plate-like arranged in 7 series  
The lateral plates are smaller than  
the median one  
Colour greenish brown with 5 to 9  
transversal dark stripes



Habitat: coastal, on the bottom and in open water

# Rhinoptera marginata

Mourine lusitanienne

Lusitanian cownose

Gavião-do-mar

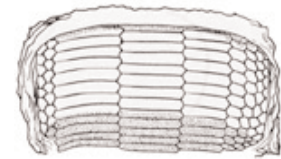
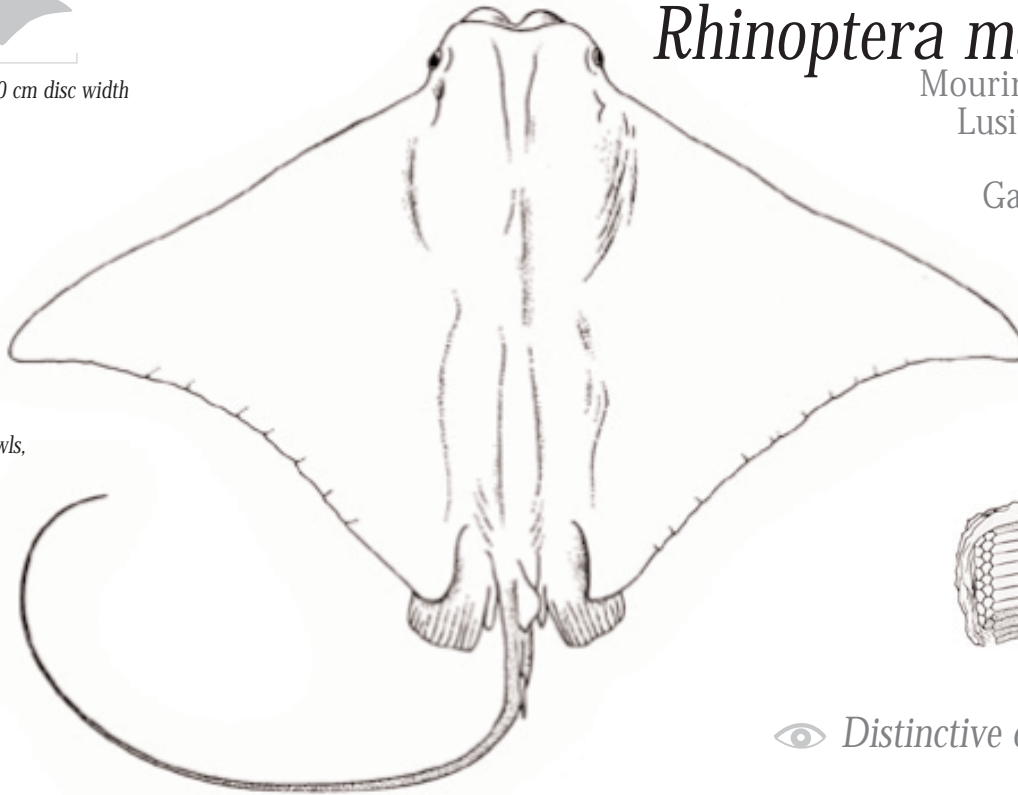
Gavilàn lusitànico



Max. size: 200 cm disc width



Fishing gears: trawls, nets, seines



Habitat: coastal, on the bottom and in open water

## Distinctive characteristics:

Disc lozenge

Head distinct with snout notched

Tail whip-like with 1 sting and a small dorsal fin at base

Teeth plate-like arranged in 9 series (sometimes 8 or 10)

Median plates larger than the lateral ones

Colour plain greenish or greyish brown

Mobulidae

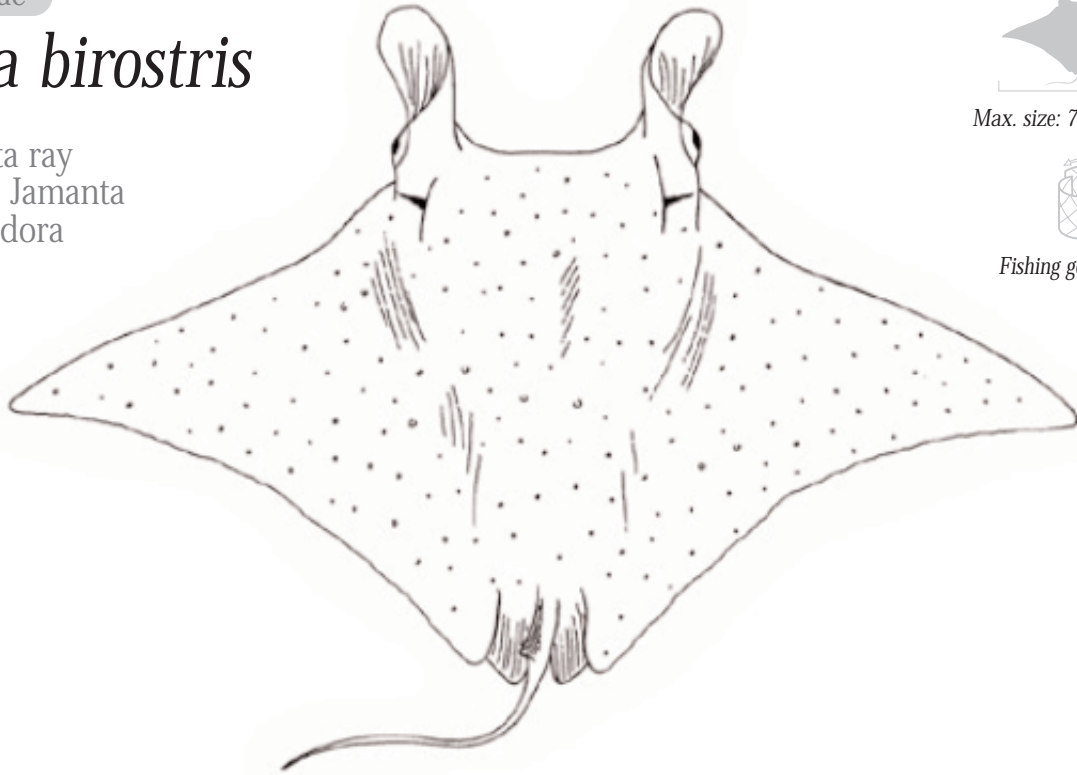
# *Manta birostris*

Mante

Giant manta ray

Urjamanta, Jamanta

Manta voladora



Max. size: 7 m disc width



Fishing gears: seines

## *Distinctive characteristics:*

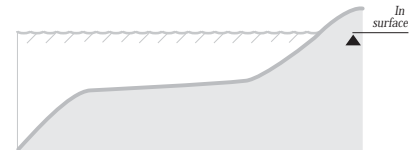
Head wide: more than 20% of disc width

Mouth terminal in position (genus *Manta*)

Teeth on lower jaw only

Back dark; sometimes with small light blotches

Belly white, often with large, irregular, dark blotches



Habitat: coastal, in open water

# *Mobula rochebrunei*

Petit diable de mer de Guinée

Lesser Guinean devilray

Jamanta-da-Guiné

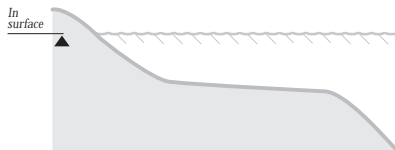
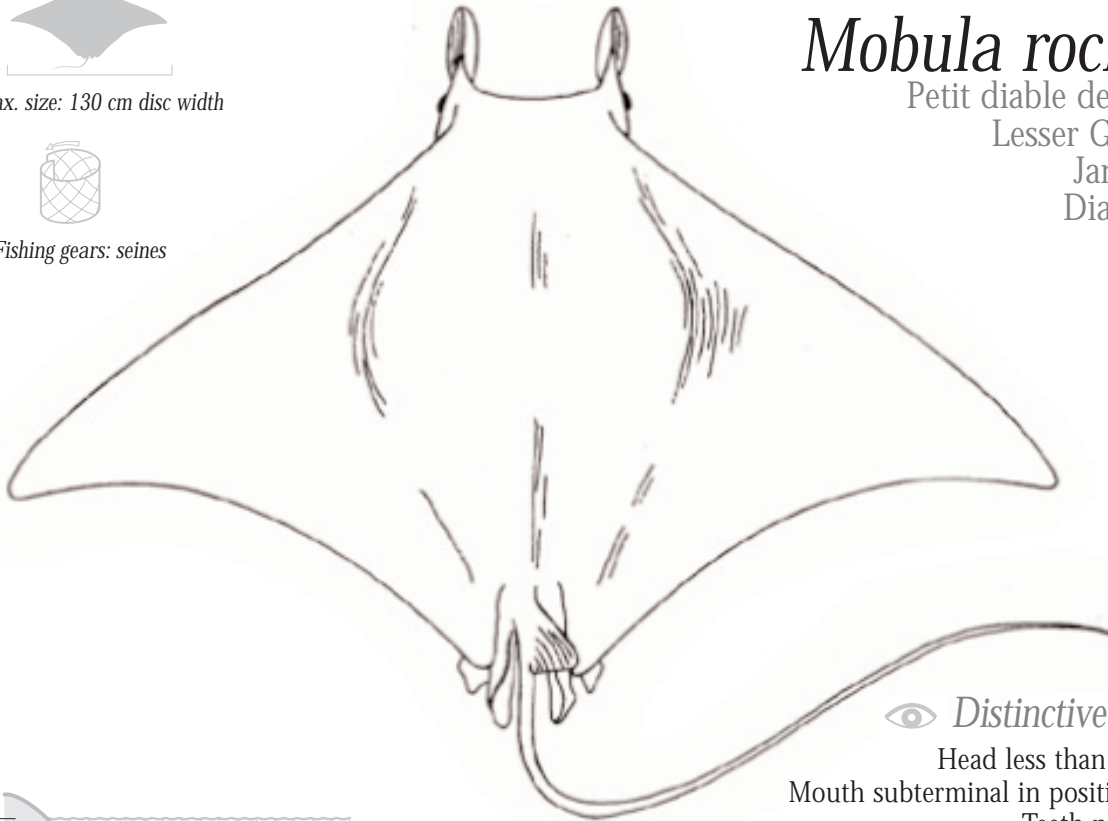
Diablito de Guinea



Max. size: 130 cm disc width



Fishing gears: seines



Habitat: coastal, in open water

## Distinctive characteristics:

Head less than 20 % of disc width

Mouth subterminal in position (genus *Mobula*)

Teeth present on both jaws

Tooth band of lower jaw less than 50 % of mouth width

No sting on tail

Back dark blue

# Sharks

P8



*Squatina aculeata*.....P10



*Squatina oculata* .....P11



*Squatina squatina* .....P12



*Ginglymostoma cirratum*.....P13



*Rhincodon typus*.....P14



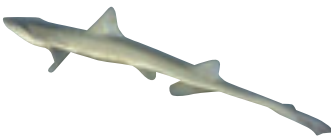
*Alopias superciliosus*.....P15



*Alopias vulpinus*.....P16



*Isurus oxyrinchus* .....P17



*Leptocharias smithii* .....P18



*Galeorhinus galeus*.....P19



*Mustelus mustelus* .....P20



*Paragaleus pectoralis* .....P21



*Carcharhinus altimus*.....P22



*Carcharhinus amboinensis* .....P23





*Carcharhinus brachyurus*.....P24



*Carcharhinus brevipinna*.....P25



*Carcharhinus falciformis*.....P26



*Carcharhinus leucas*.....P27



*Carcharhinus limbatus*.....P28



*Carcharhinus longimanus*.....P29



*Carcharhinus obscurus*.....P30



*Carcharhinus plumbeus*.....P31



*Carcharhinus signatus*.....P32



*Galeocerdo cuvier*.....P33



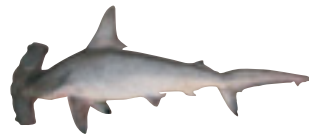
*Negaprion brevirostris*.....P34



*Prionace glauca*.....P35



*Rhizoprionodon acutus*.....P36



*Sphyrna lewini*.....P37



*Sphyrna mokarran*.....P38



*Sphyrna zygaena*.....P39

# Rays

P40



*Rhynchobatus lubberti*.....P45



*Rhinobatos albomaculatus*.....P46



*Rhinobatos blochii* .....P47



*Rhinobatos cemiculus* .....P48



*Rhinobatos irvinei* .....P49



*Rhinobatos rhinobatos* .....P50



*Zanobatus schoenleinii* .....P51



*Torpedo marmorata* .....P52



*Torpedo torpedo* .....P53



*Torpedo bauchotae* .....P54



*Torpedo mackayana* .....P55



*Raja miraletus*.....P56



*Raja straeleni*.....P57



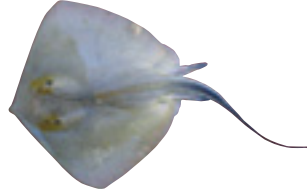
*Dasyatis centroura*.....P58



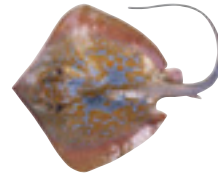
*Dasyatis margarita*.....P59



*Dasyatis margaritella*.....P60



*Dasyatis pastinaca*.....P61



*Dasyatis marmorata*.....P62



*Taeniura grabata*.....P63



*Gymnura altavela*.....P64



*Gymnura micrura*.....P65



*Aetobatus narinari*.....P66



*Myliobatis aquila*.....P67



*Pteromylaeus bovinus*.....P68



*Rhinoptera marginata*.....P69



*Manta birostris*.....P70



*Mobula rochebrunei*.....P71

# *Identification guide of the main shark and ray species of the eastern tropical Atlantic, for the purpose of the fishery observers and biologists*

This field guide is designed for the needs of the biologists and fishery observers: its aim is to help them in the identification of the main species of sharks and rays occurring off the West-African coasts. Its simple design was elaborated on purpose: the distinctive features of the different species are summarized and the texts providing information on size, biology, habitat and fisheries were reduced to the main points. These data are presented around a central drawing representing the shark or ray species; detailed drawings (snout, teeth) are provided when they are useful for the identification. Plates of colour pictures complete the illustration and make easier the identification of the species.

Thanks to this guide, the catches of sharks and rays could be recorded by species; this would improve the quality of the fishery statistics and allow a better management of the shark and ray populations in West Africa.

Bernard SÉRET  
IRD & MNHN



FIBA



IUCN  
Union mondiale pour la Nature



PRCM  
Programme Régional de Conservation des Ressources Marines  
de la Région d'Outre-Mer de la Réunion  
www.prcm.re