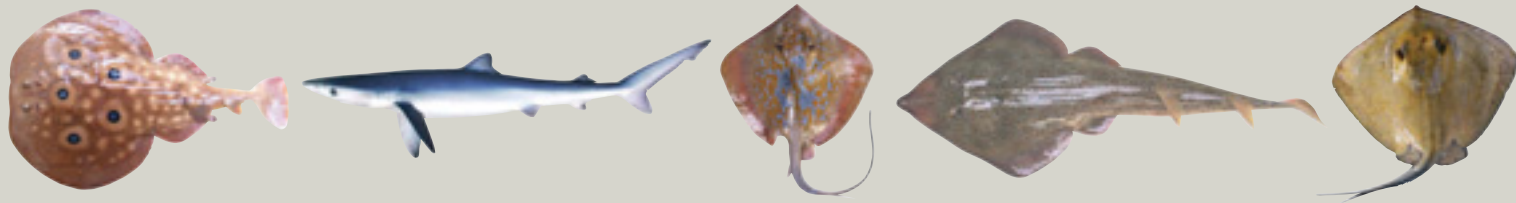


Identification guide of the main shark and ray species of the eastern tropical Atlantic, for the purpose of the fishery observers and biologists

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.

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Photo credit

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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).

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

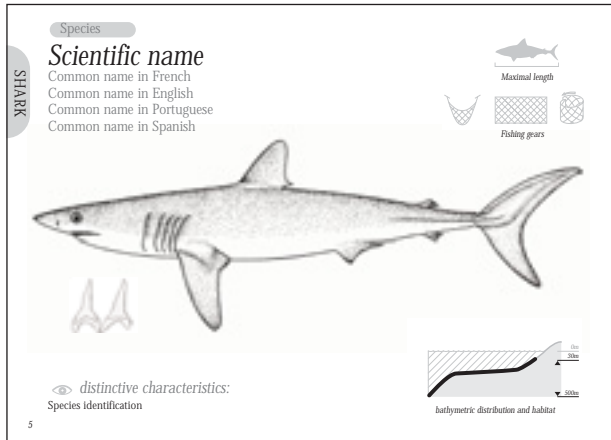
the management and the conservation of shark populations (PSRA-Requins), following the recommendations of the international plan elaborated by the FAO. Among the objectives of this plan is the improvement of the scientific information related to the impact of the fisheries on shark populations. Today, 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
SquatinaP10



Ginglymostomatidae nurse sharks
GinglymostomaP13



Rhincodontidae whale shark
RhincodonP14



Alopiidae thresher sharks
AlopiasP15



Lamnidae mako sharks
IsurusP17



Leptochariidae barbel ed houndsharks
LeptochariasP18



Triakidae houndsharks
Mustelus, GaleorhinusP20



Hemigaleidae weasel sharks
ParagaleusP21



Carcharhinidae requiem sharks
Carcharhinus, Galeocerdo, Negaprion, Prionace, RhizoprionodonP22



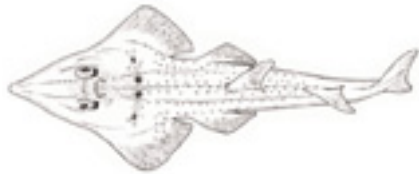
Sphyrnidae hammerhead sharks
SphyrnaP37

RAYS (families)

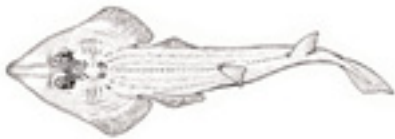
P40



Pristidae sawfishes
PristisP42



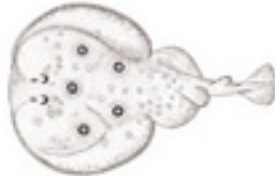
Rhynchobatidae wedgefishes
RhynchobatusP45



Rhinobatidae guitarfishes
RhinobatosP46



Zanobatidae panrays
ZanobatusP51



Torpedinidae electric rays
TorpedoP52



Rajidae skates
RajaP56



Dasyatidae stingrays
DasyatisP58



Gymnuridae butterfly rays
GymnuraP64



Myliobatidae eagle rays
Myliobatis, *Aetobatus*,
PteromylaeusP66



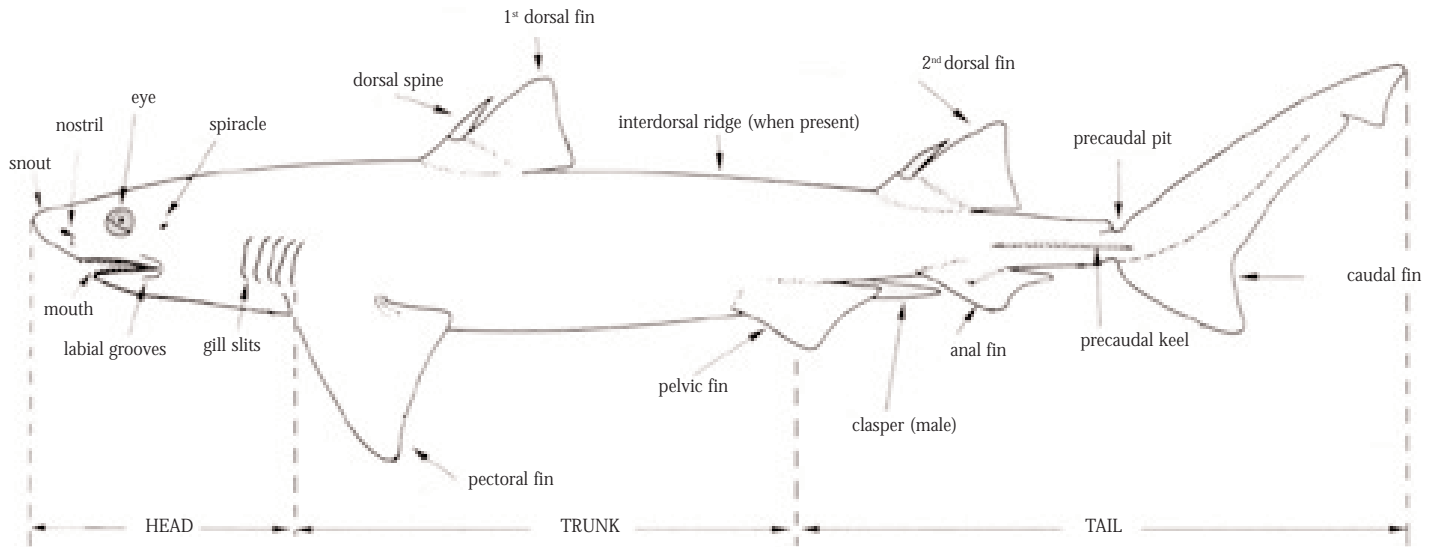
Rhinopteridae cownose rays
RhinopteraP69



Mobulidae mantas, devil rays
Manta, *Mobula*P70

Sharks

Shark morphology



Squatinaidae

Squatina aculeata

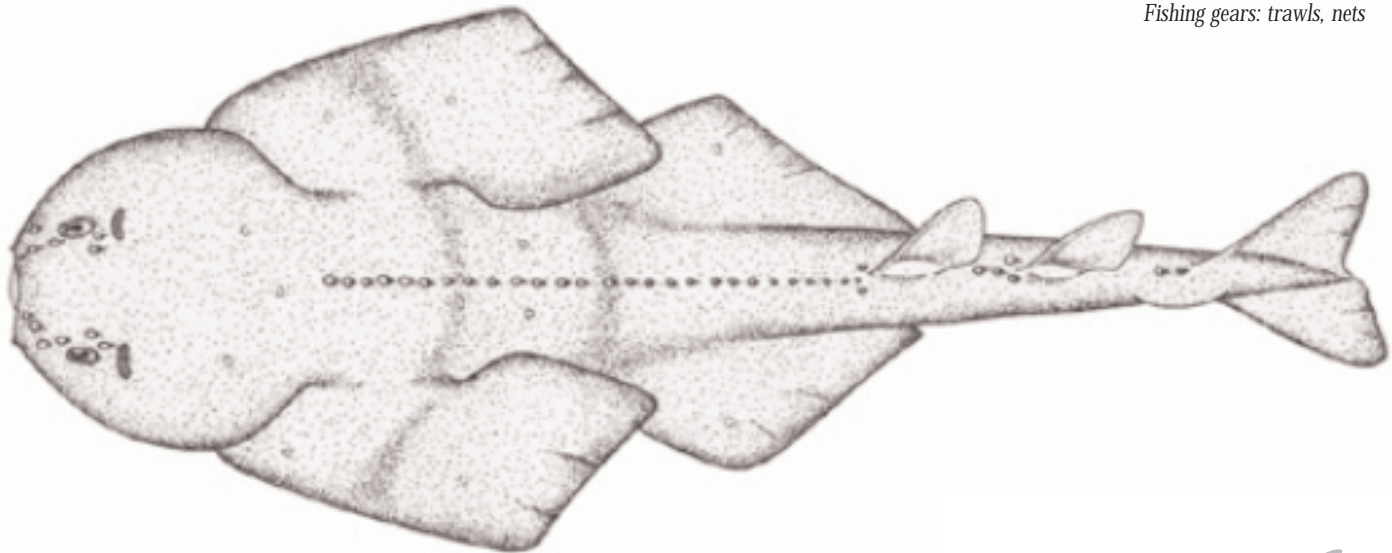
Ange de mer épineux
Sawback angelshark
Anjo-espinhoso
Angelote espinudo



Max. size: 190 cm TL

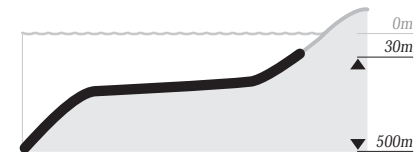


Fishing gears: trawls, nets



Distinctive characteristics:

A mediodorsal row of strong thorny tubercles
Nasal barbels strongly fringed



Habitat: continental shelf and slope

Squatinaidae

Squatina oculata

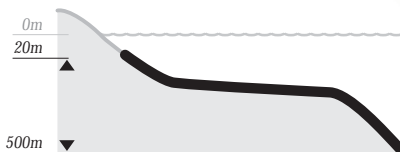
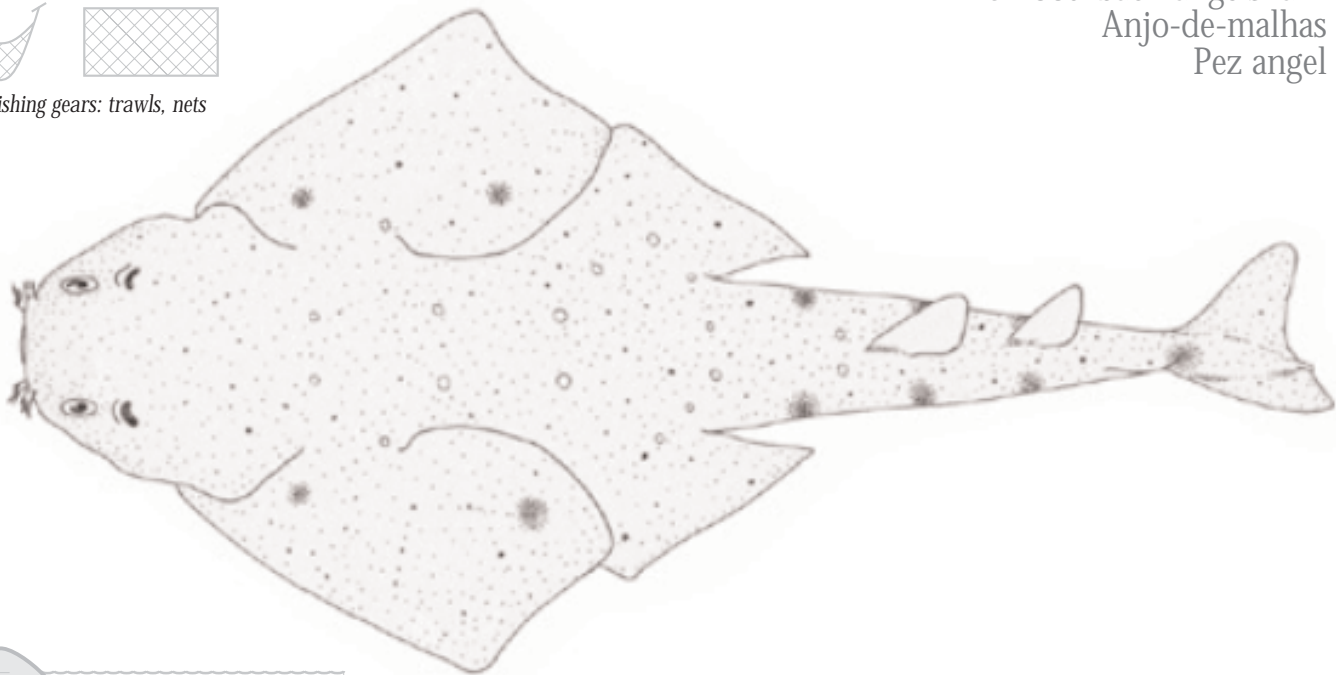
Ange de mer ocellé
Smoothback angelshark
Anjo-de-malhas
Pez angel



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

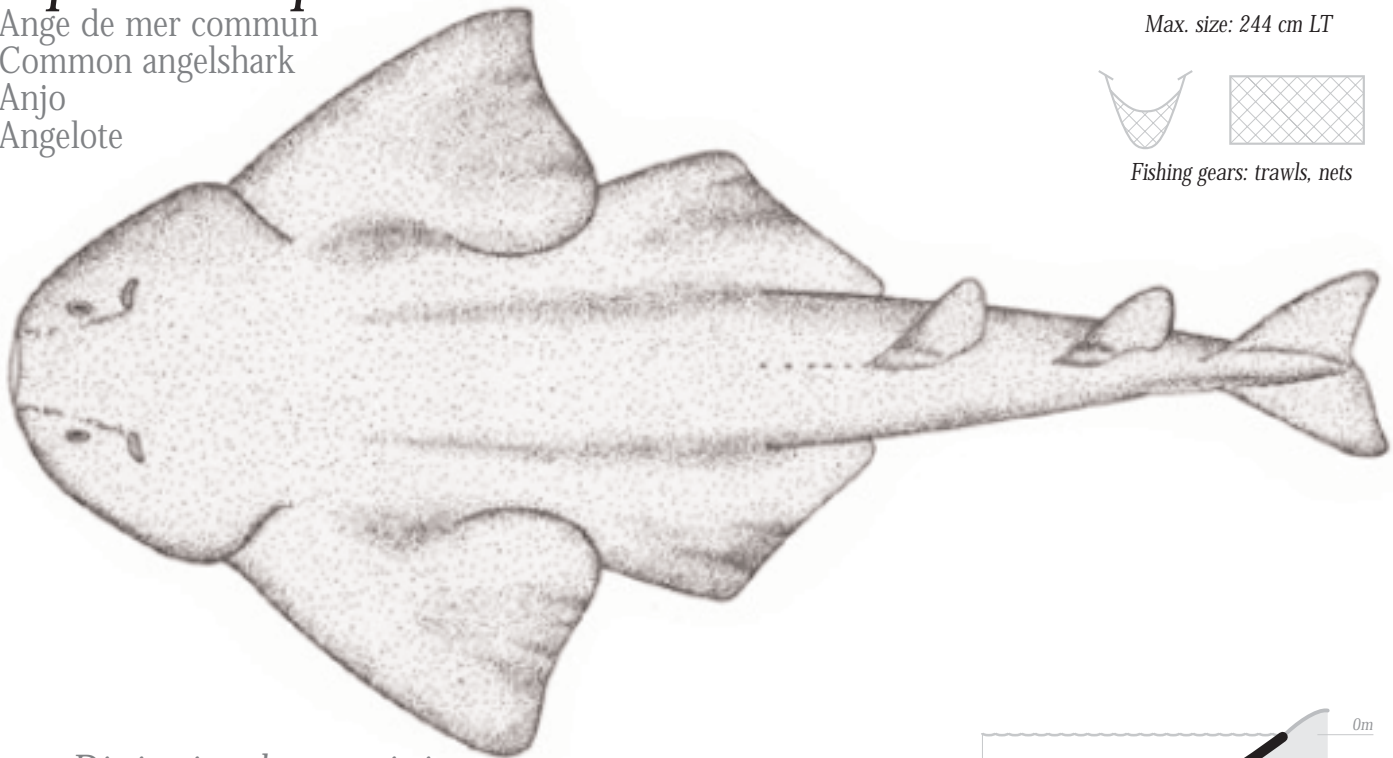
Ange de mer commun
Common angelshark
Anjo
Angelote



Max. size: 244 cm LT

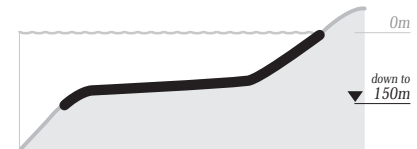


Fishing gears: trawls, nets



 *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

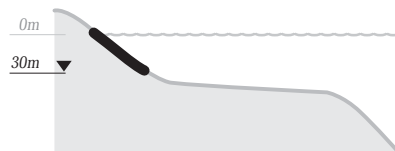
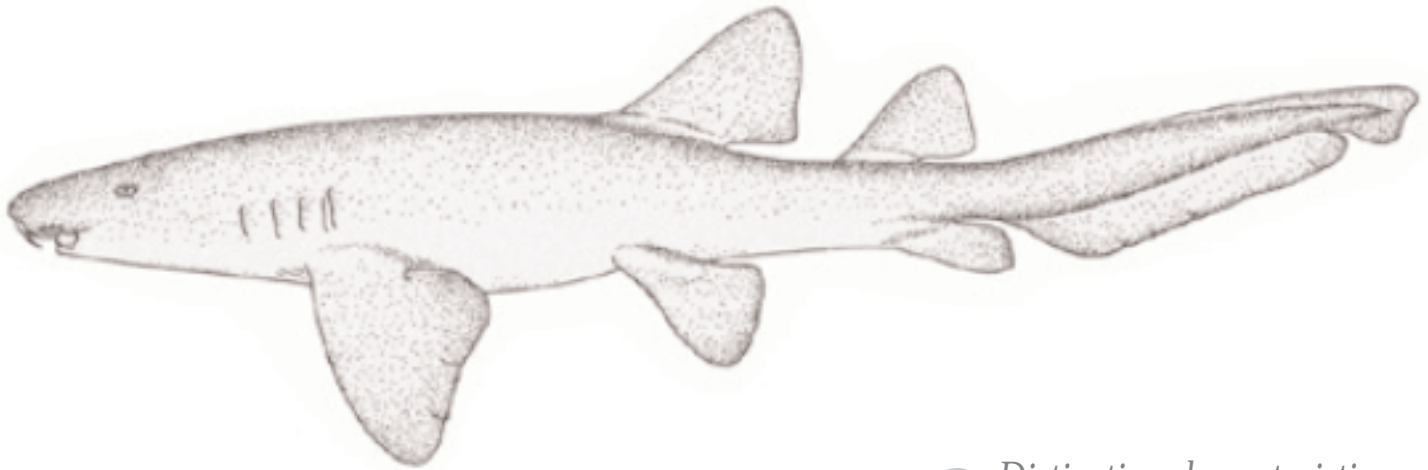
Ginglymostoma cirratum

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

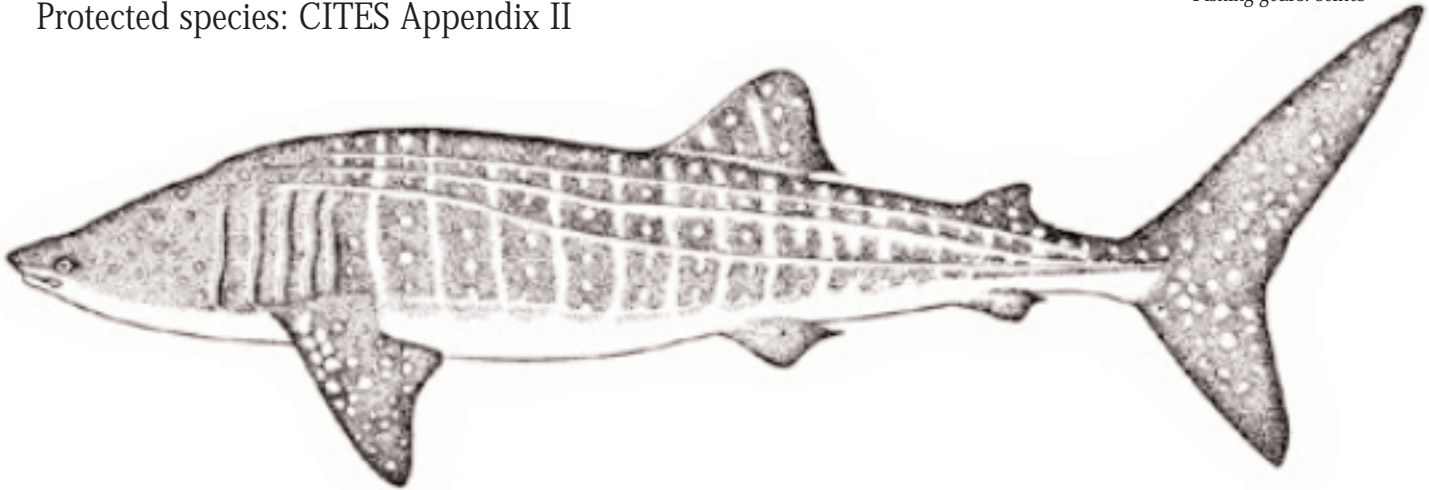
Protected species: CITES Appendix II



Max. size: 15 m LT



Fishing gears: seines



Distinctive characteristics:

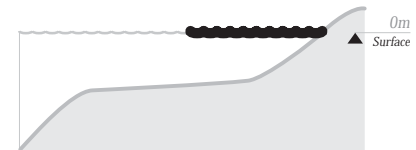
Its size: it is the largest fish

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

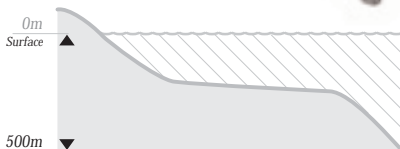
Zorro ojon



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: ± 6 m LT

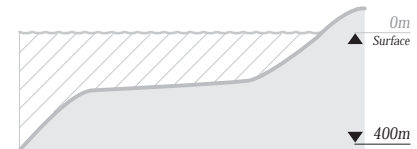


Fishing gears: long-lines



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



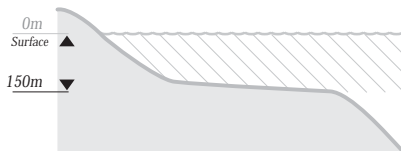
Max. size: ± 4 m LT



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

Leptocharias smithii

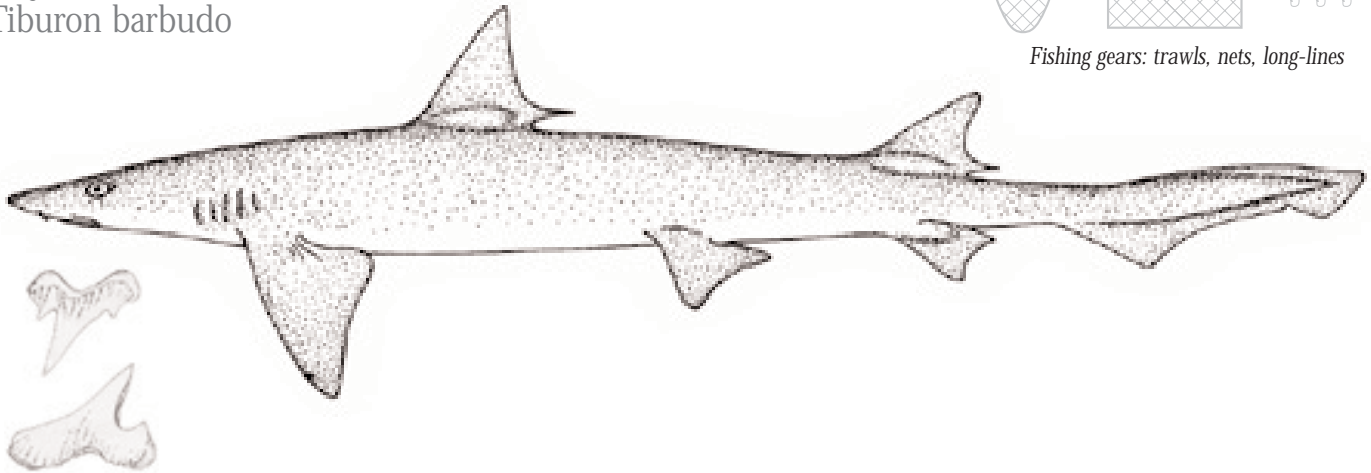
Émissole à grandes lèvres
Barbled houndshark
Cação-corre-corre
Tiburón barbudo



Max. size: 82 cm LT

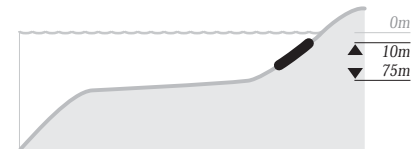


Fishing gears: trawls, nets, long-lines



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: ± 2 m LT

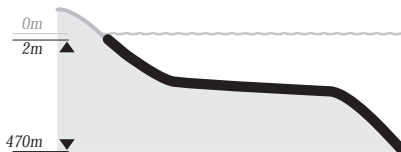


Fishing gears: nets, long-lines



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

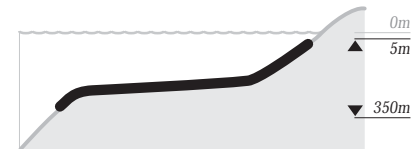


Fishing gears: trawls, nets, long-lines



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

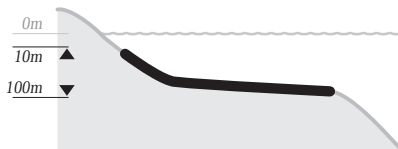
Milandre jaune
Atlantic weasel shark
Tubarão-dononha
Tuburon comadiza



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

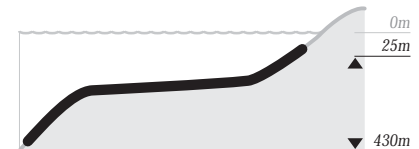


Fishing gears: trawls, long-lines



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



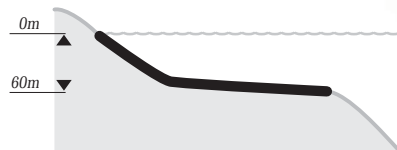
Habitat: shelf and continental slope



Max. size: 280 cm LT



Fishing gears: long-lines



Habitat: continental shelf

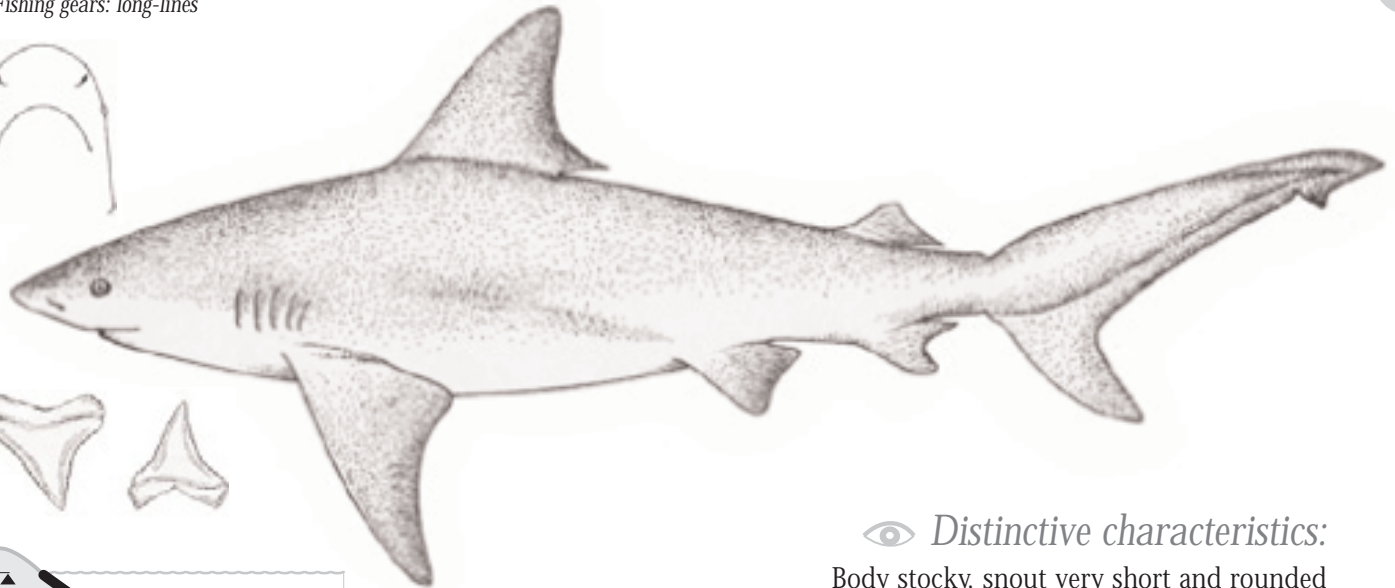
Carcharhinus amboinensis

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

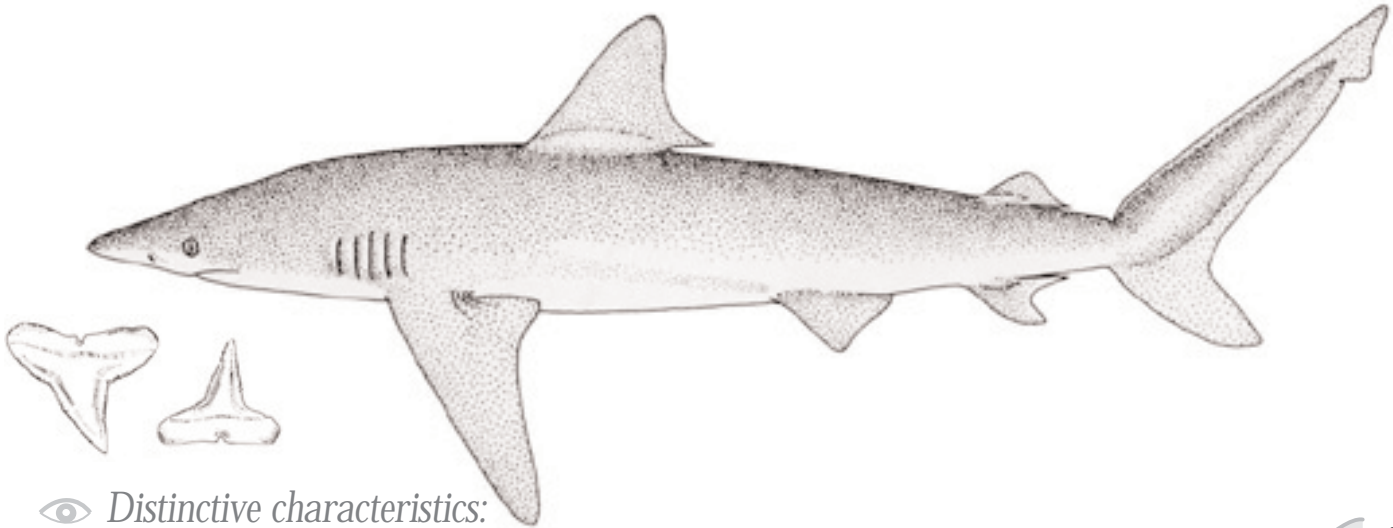
Requin cuivré
Copper shark
Tubarão-cobre
Tiburón cobrizo



Max. size: 290 cm LT

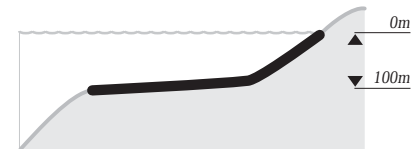


Fishing gears: trawls, long-lines.



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

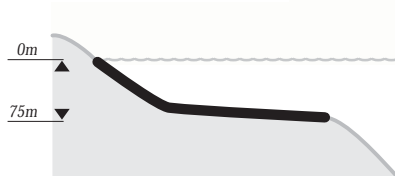
Tiburón aleta negra



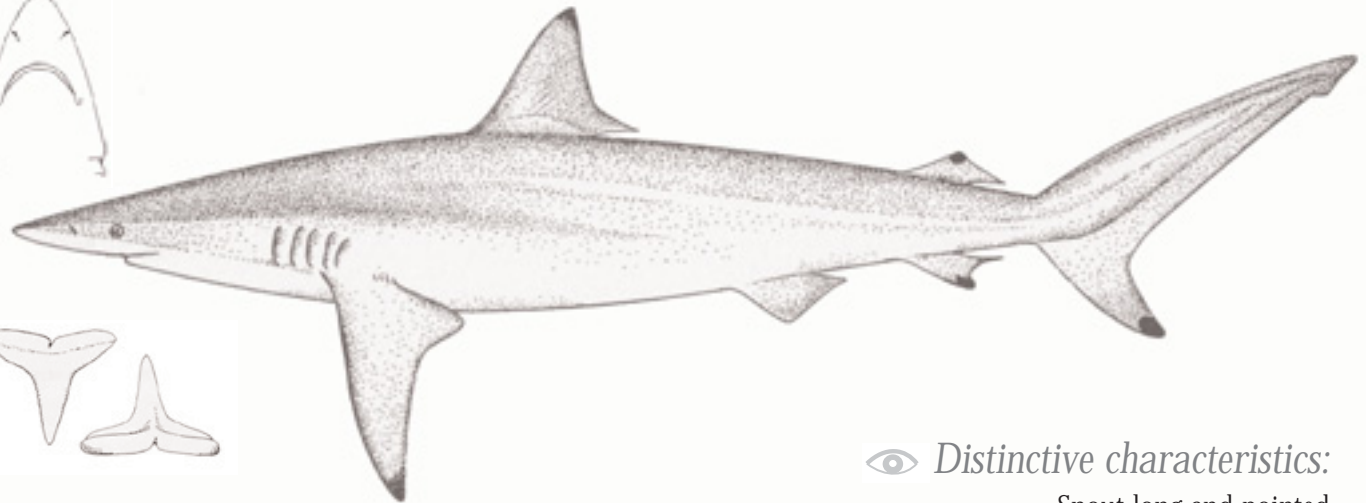
Max. size: 280 cm LT



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

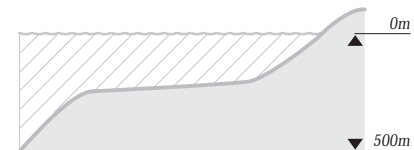


Fishing gears: seines, long-lines



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



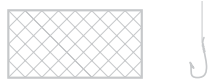
Habitat: in the open sea

Carcharhinus leucas

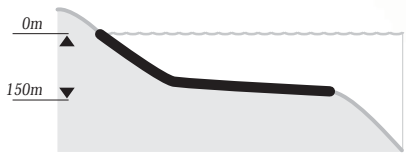
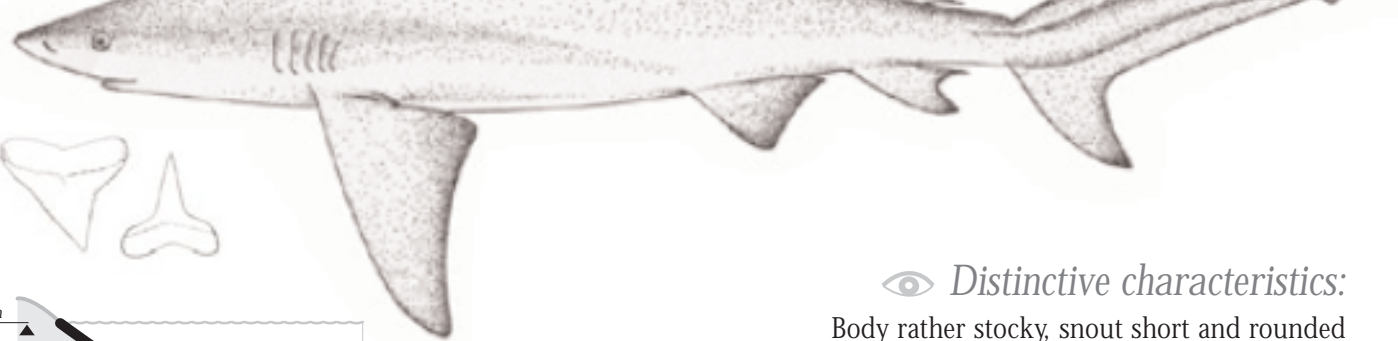
Requin-bouledogue
Bull shark
Tubarão-buldogue
Tiburón sarda



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

Carcharhinidae

Carcharhinus limbatus

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



Max. size: 255 cm LT



Fishing gears: nets, lines



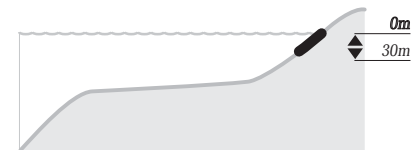
Distinctive characteristics:

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

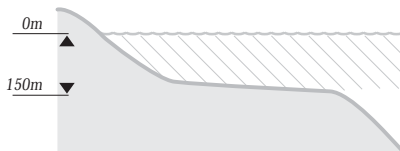
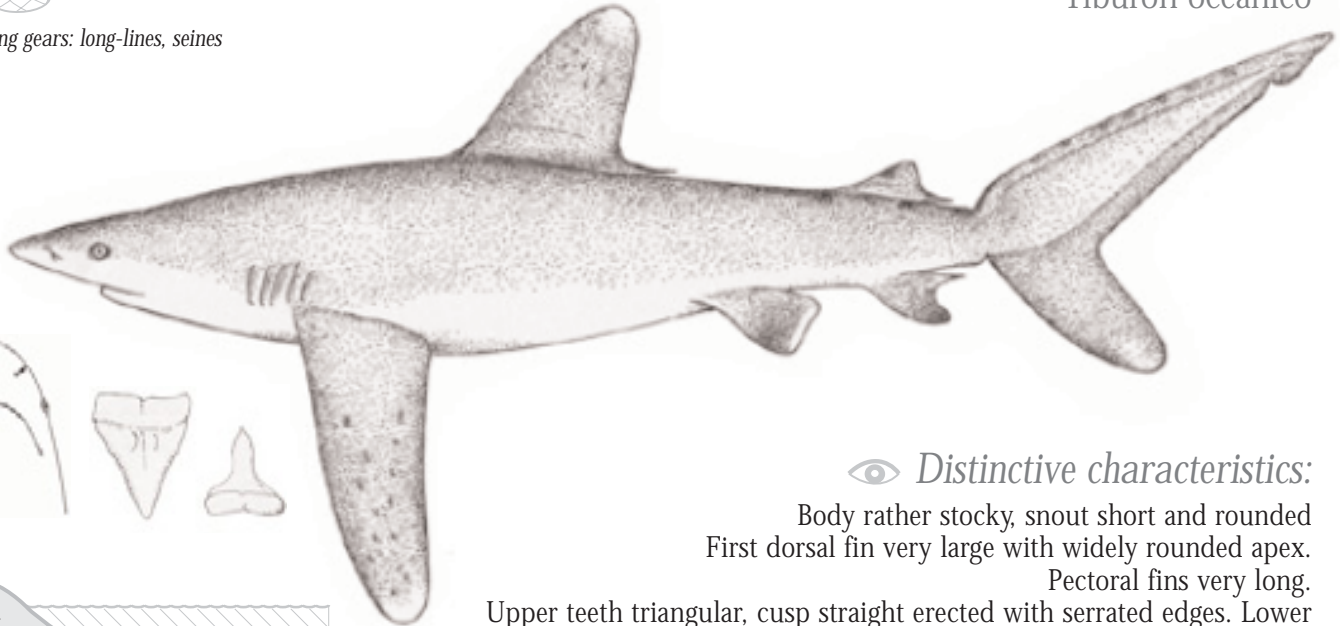
Carcharhinus longimanus

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
Tiburón arenero



Max. size: 360 cm LT

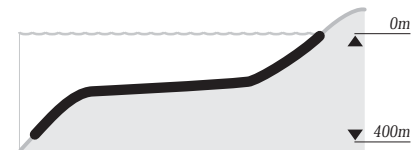


Fishing gears: nets, long-lines



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

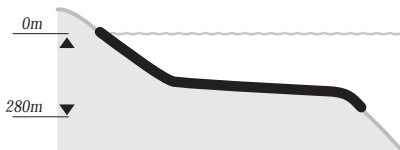
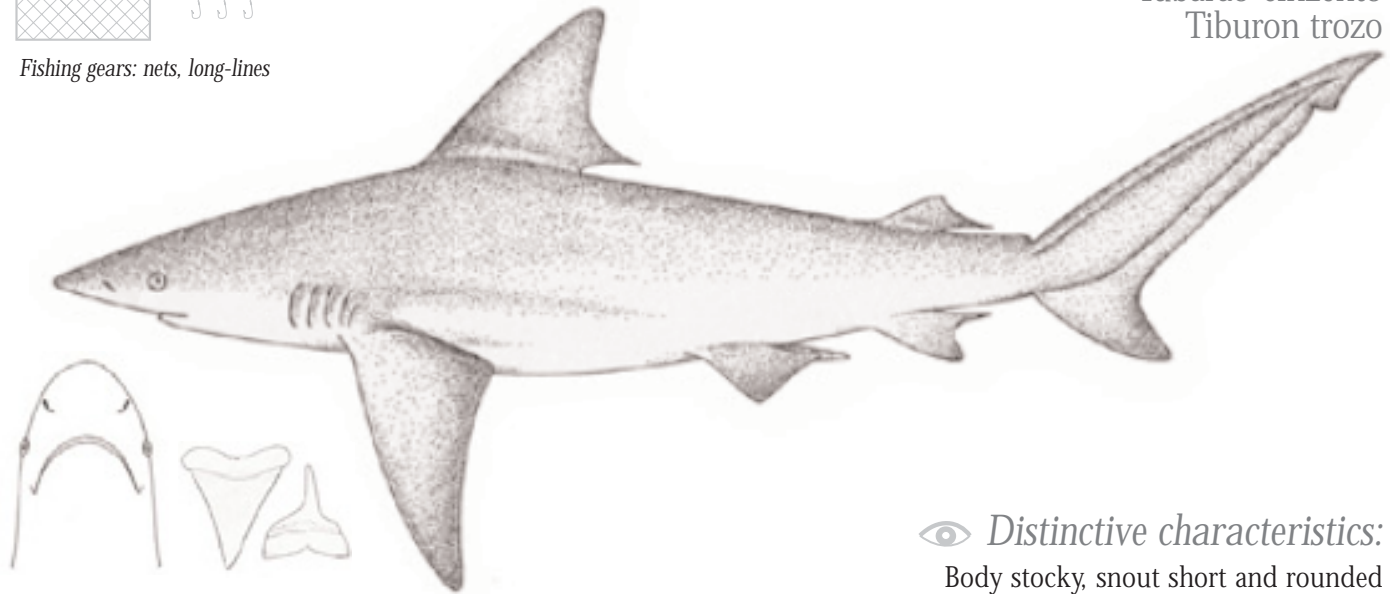
Requin gris
Sandbar shark
Tubarão-cinzeno
Tiburón trozo



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

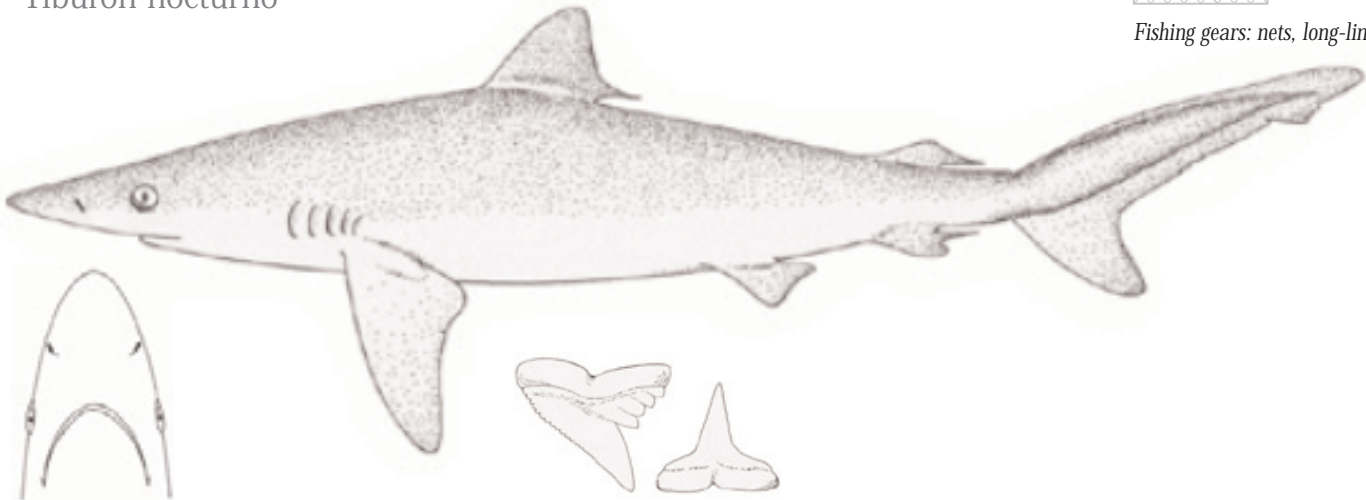
Requin de nuit
Night shark
Tubarão-da-noite
Tiburón nocturno



Max. size: 280 cm LT

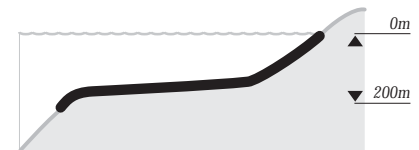


Fishing gears: nets, long-lines



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

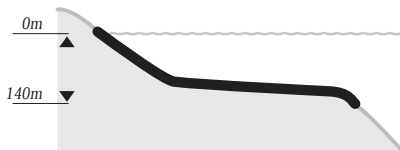
Requin-tigre
Tiger shark
Tubarão-tigre
Tintorera



Max. size: ± 6 m LT



Fishing gears: nets, long-lines, lines



Habitat: coastal

👁 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

Negaprion brevirostris

Requin citron
Lemon shark
Tubarão-limão
Tiburón galano



Max. size: 320 cm LT

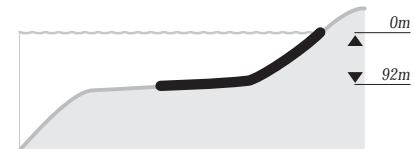


Fishing gears: nets, long-lines, lines



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

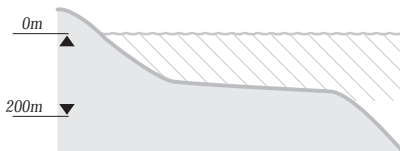
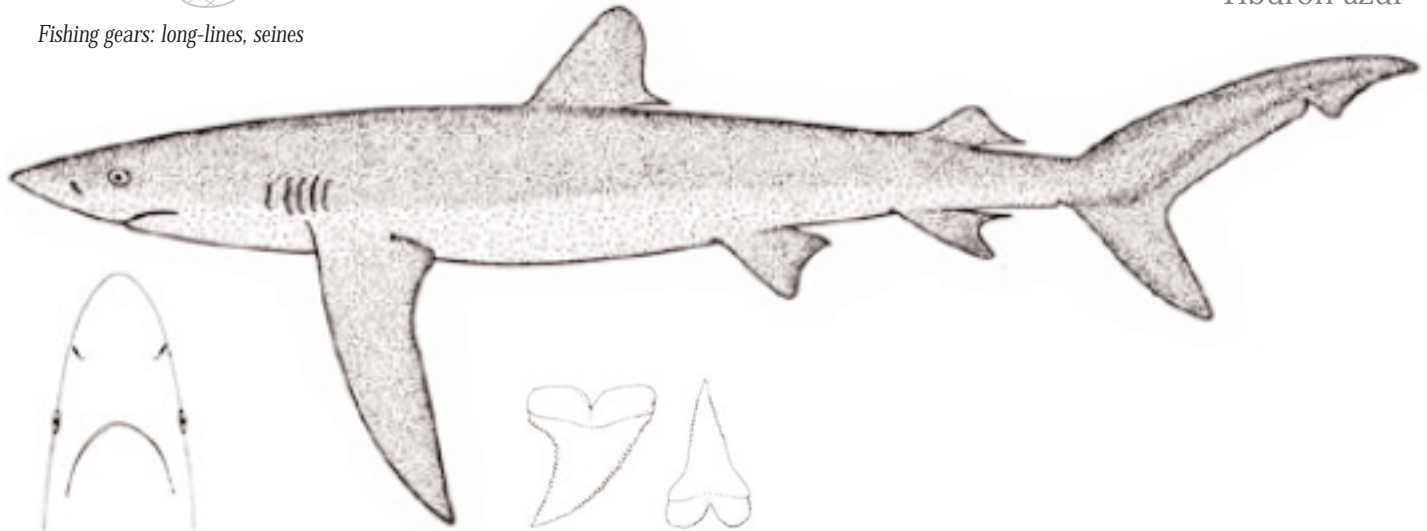
Tiburón azul



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

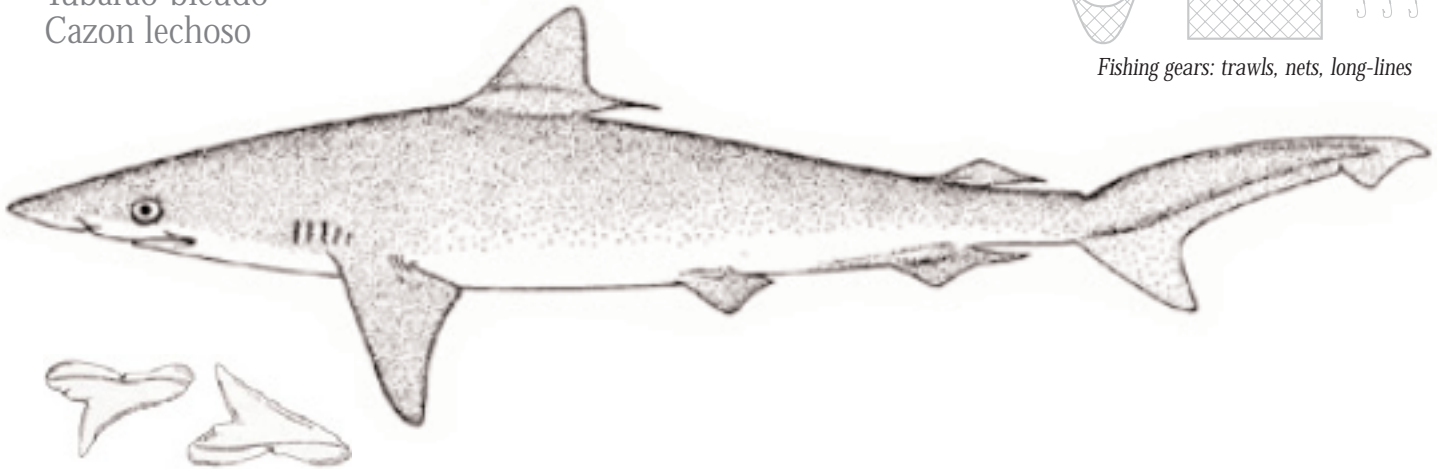
Cazon lechoso



Max. size: 115 cm LT



Fishing gears: trawls, nets, long-lines



Distinctive characteristics:

Body torpedo-shaped, snout long and pointed

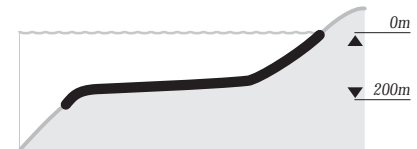
Second dorsal fin smaller than the first one

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

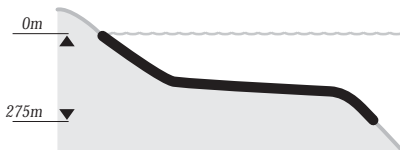
Requin-marteau halicorne
 Scalloped hammerhead
 Tubarão-martelo-recortado
 Cornuda comun



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

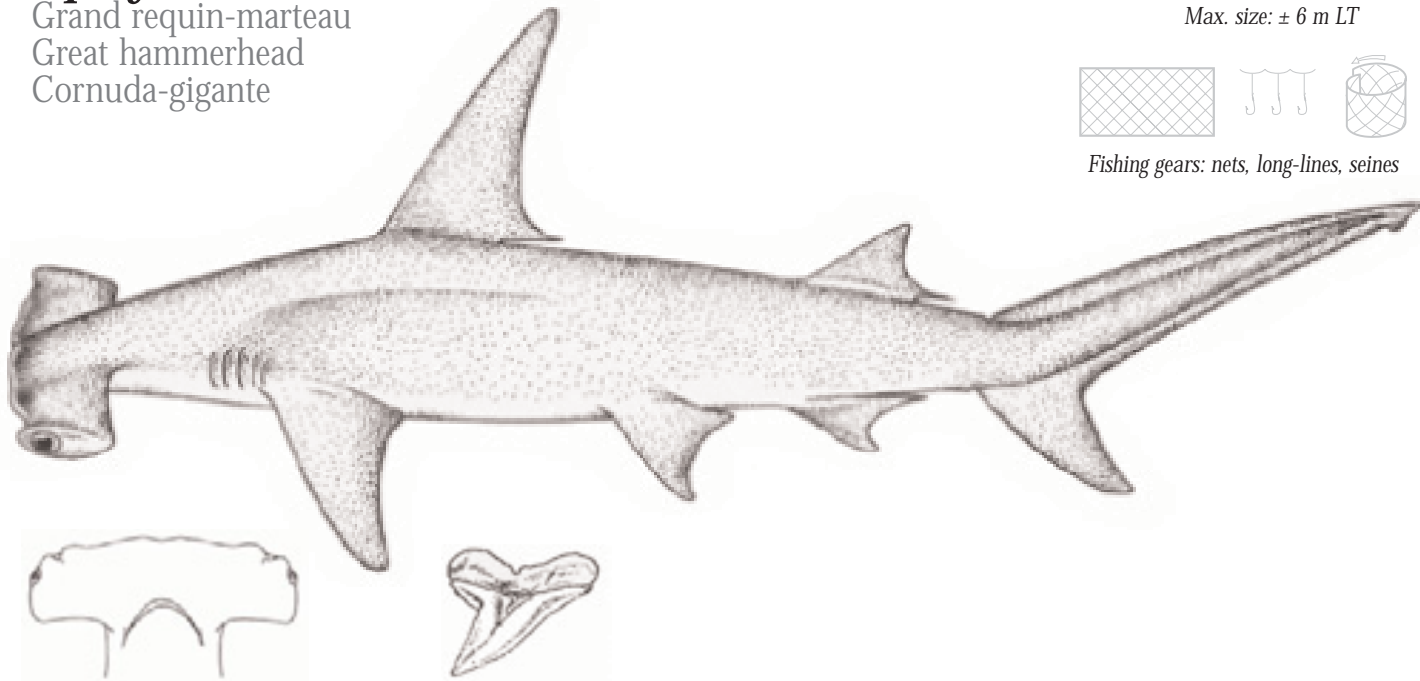
Grand requin-marteau
Great hammerhead
Cornuda-gigante



Max. size: ± 6 m LT

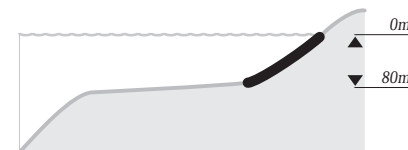


Fishing gears: nets, long-lines, seines



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

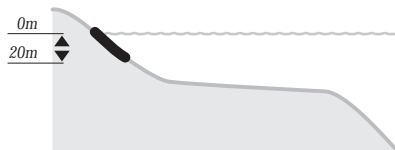
Cornuda cruz



Max. size: ± 4 m LT



Fishing gears: nets, long-lines, seines



Habitat: continental shelf, coastal

 *Distinctive characteristics:*

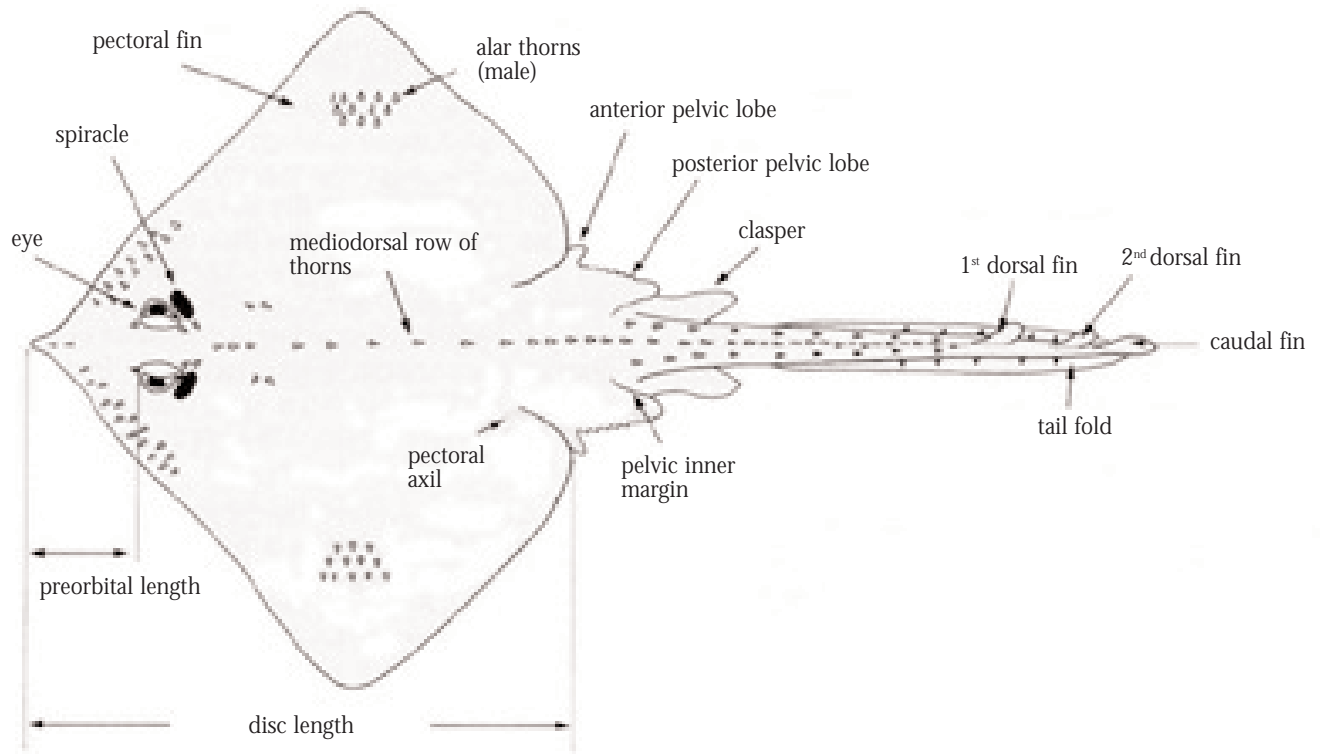
Anterior margin of head strongly curved, without median notch

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

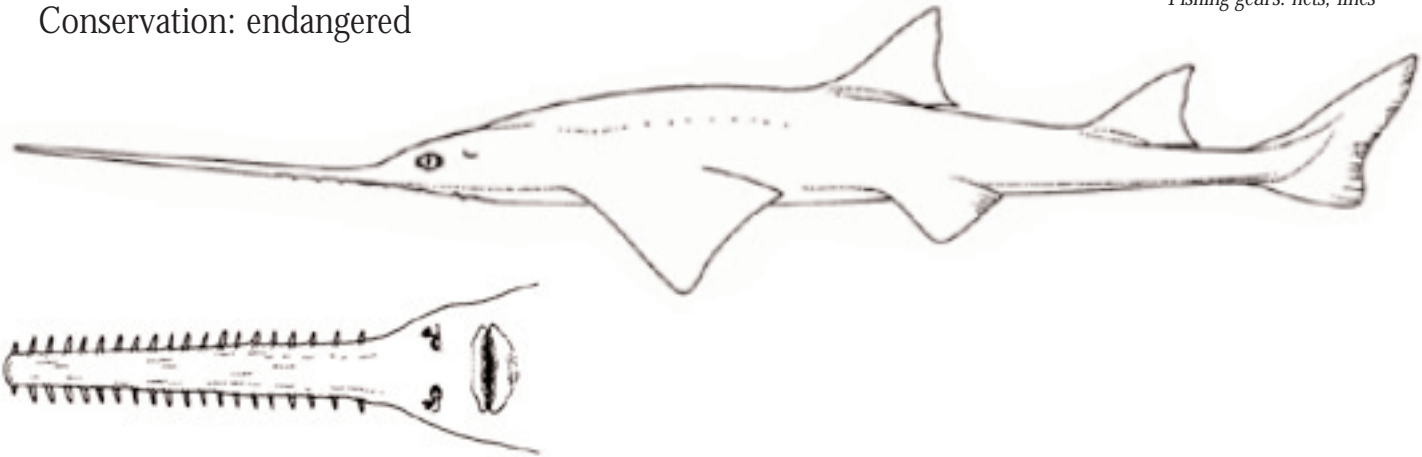
Conservation: endangered



Max. size: ± 7 m LT

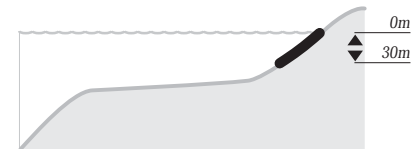


Fishing gears: nets, lines



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

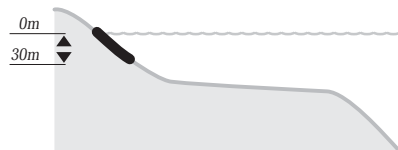
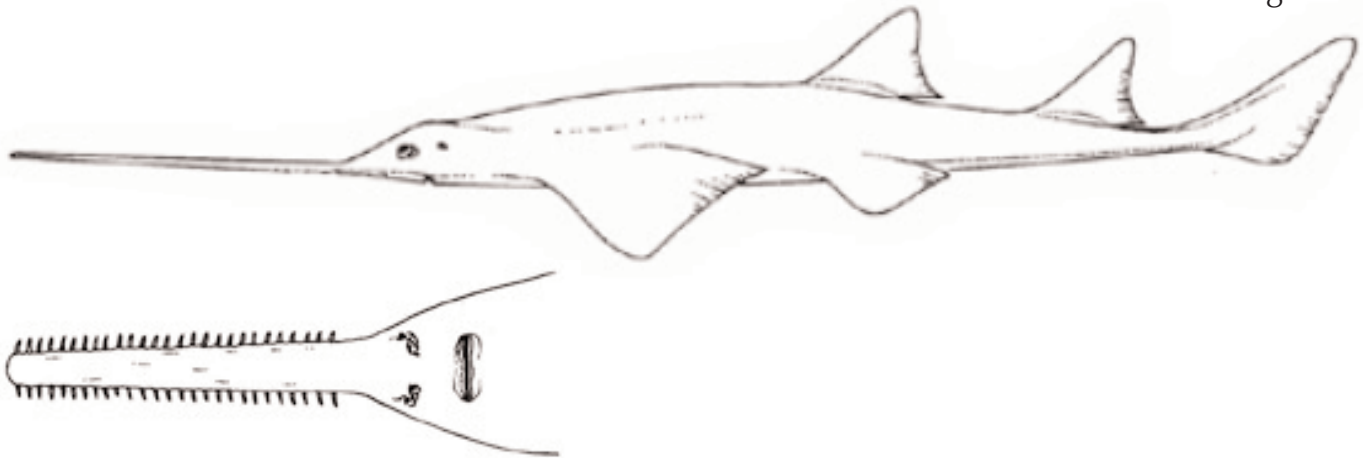
Conservation: endangered



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

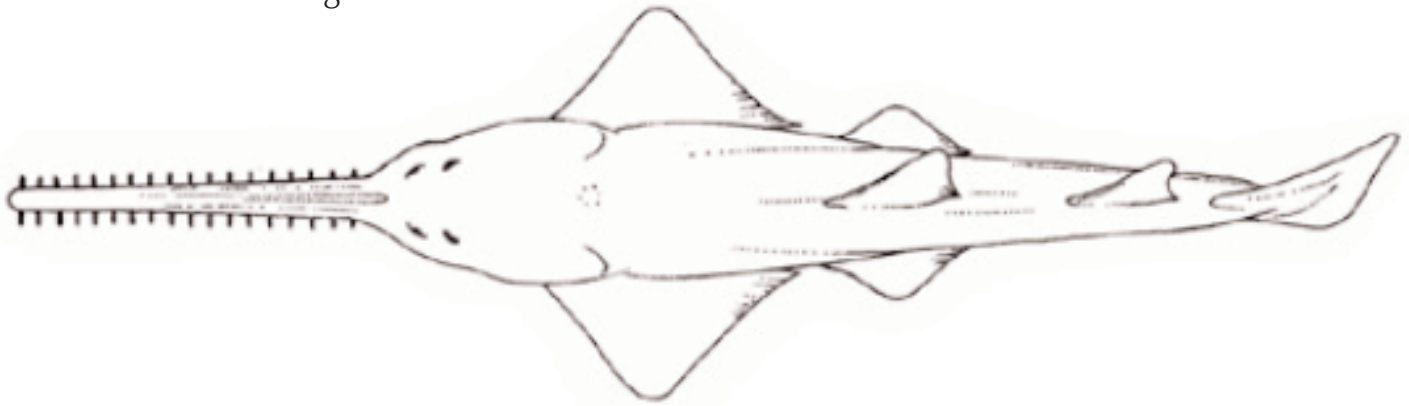
Conservation: endangered



Max. size: ± 7 m LT



Fishing gears: nets, lines



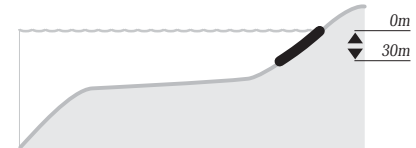
Distinctive characteristics:

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 lubberti

Poisson-paille africain

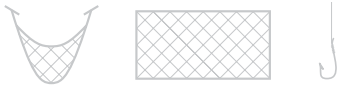
African wedgefisch

Viola-de-cunha

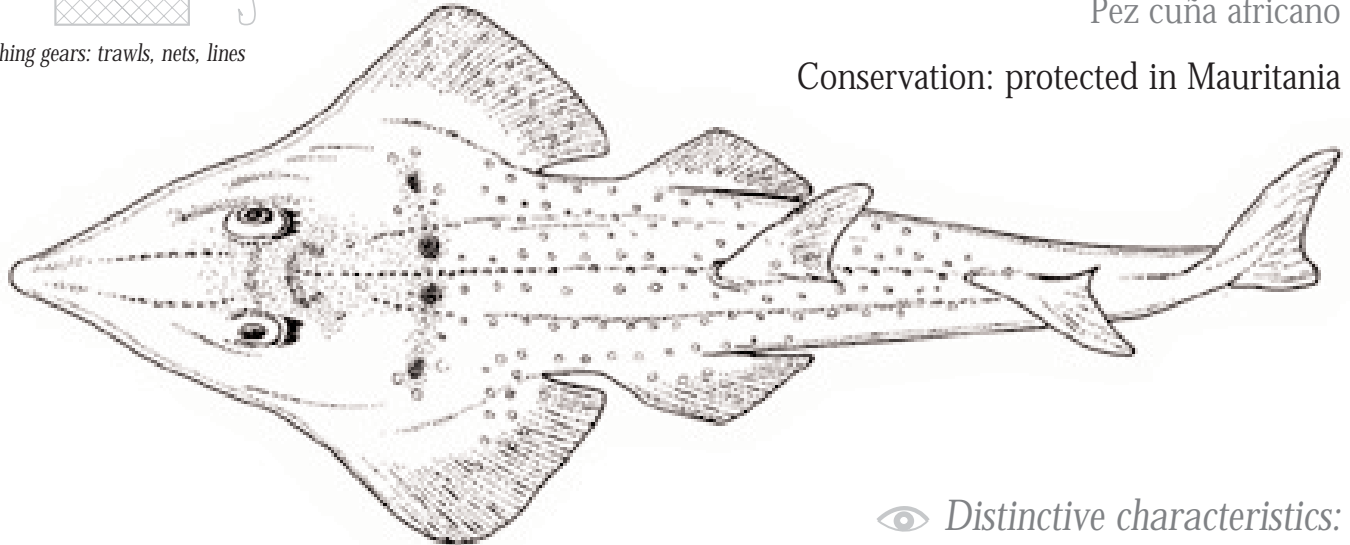
Pez cuña africano



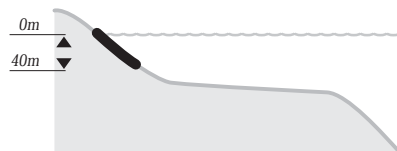
Max. size: ± 3 m LT



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

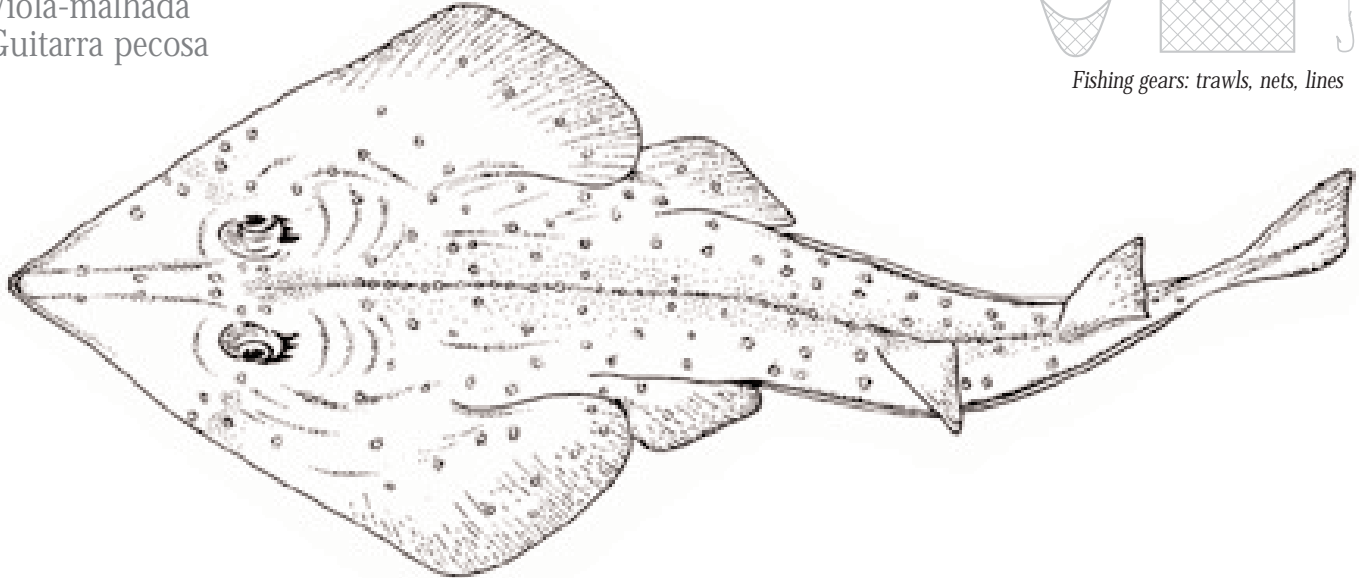
Raie-guitare à lunaires
Whitespotted guitarfish
Viola-malhada
Guitarra pecosa



Max. size: 80 cm LT

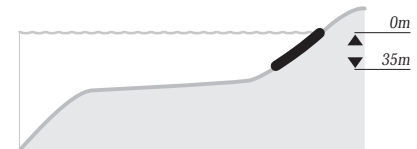


Fishing gears: trawls, nets, lines



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



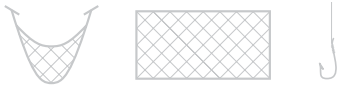
Habitat: coastal, on the bottom

Rhinobatos (*Acroteriobatus*) *blochii*

Raie-guitare de Bloch
Bluntnose guitarfish
Guitarra embocada

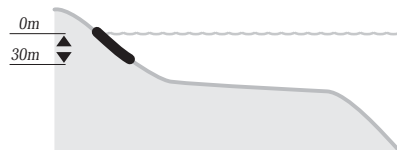
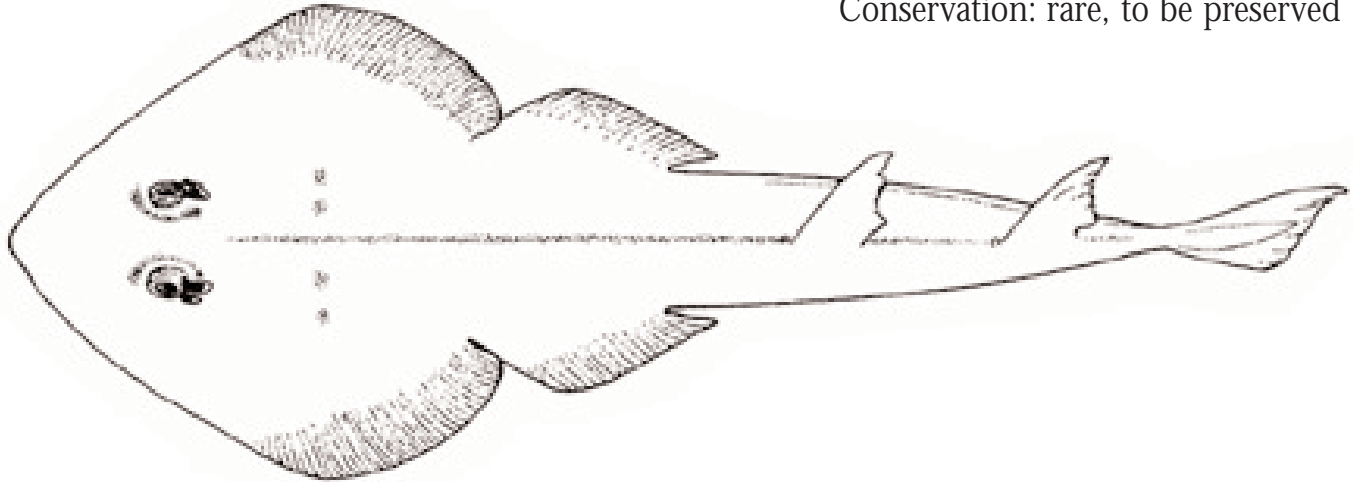


Max. size: 100 cm LT



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

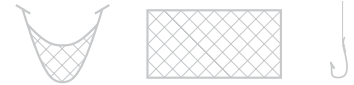
Rhinobatidae

Rhinobatos (Glaucostegus) cemiculus

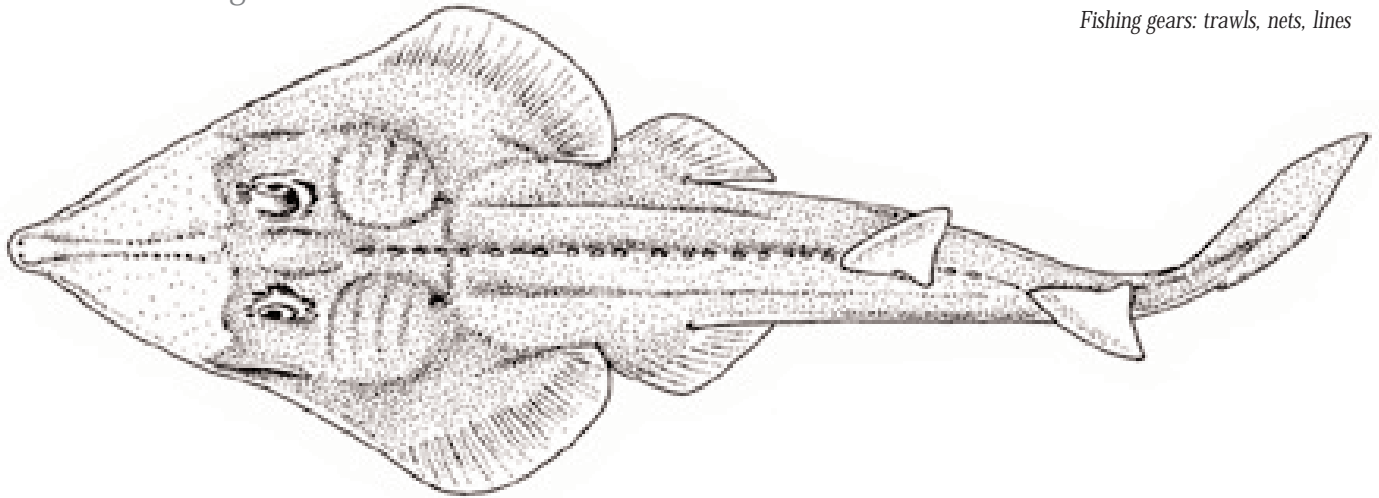
Raie-guitare fousseuse
Blackchin guitarfish
Viola-barba-negra
Guitarra barbanegra



Max. size: 265 cm LT



Fishing gears: trawls, nets, lines



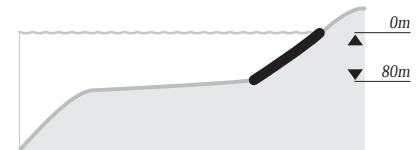
Distinctive characteristics:

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)



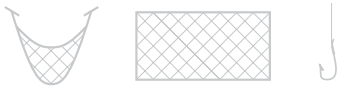
Habitat: coastal, on the bottom

Rhinobatos (*Rhinobatos*) *irvinei*

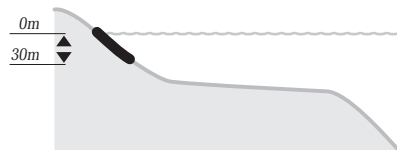
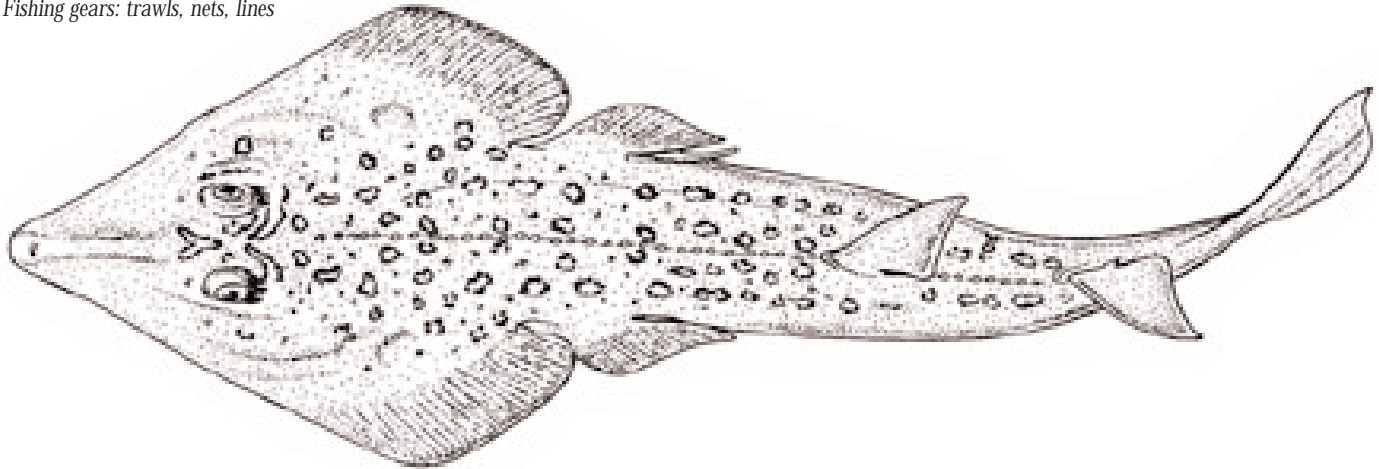
Raie-guitare d'Irvine
Spineback guitarfish
Irvine guitarra



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

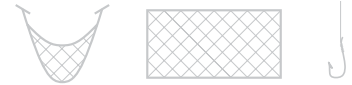
Rhinobatidae

Rhinobatos (Rhinobatos) rhinobatos

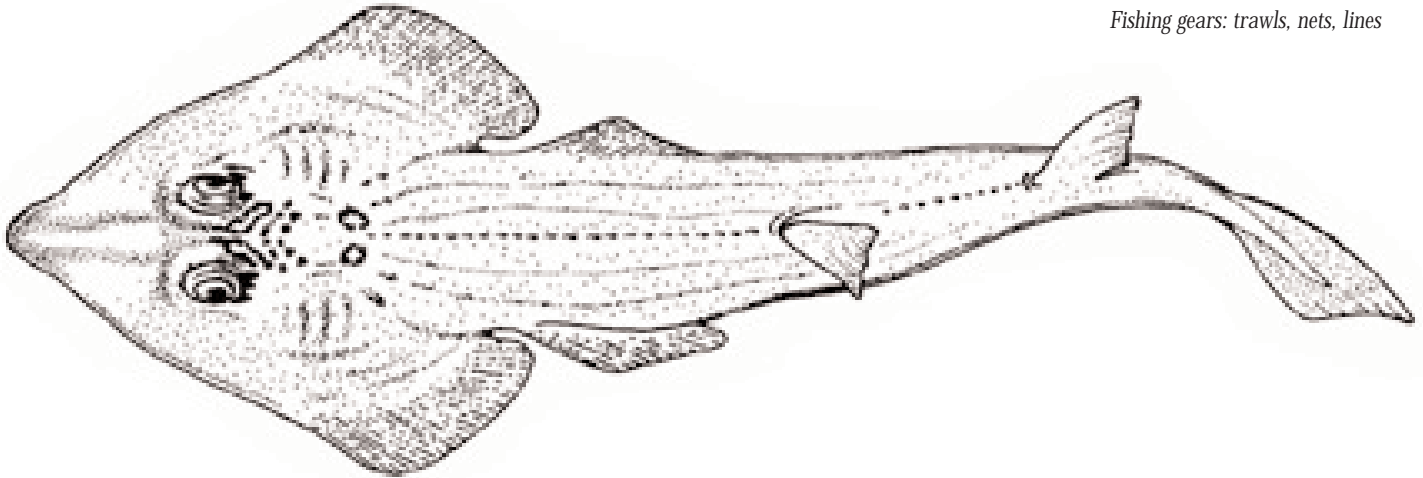
Raie-guitare commune
Common guitarfish
Guitarra comum



Max. size: 100 cm LT

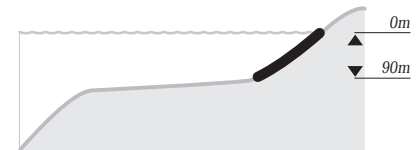


Fishing gears: trawls, nets, lines



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

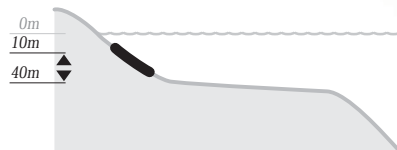
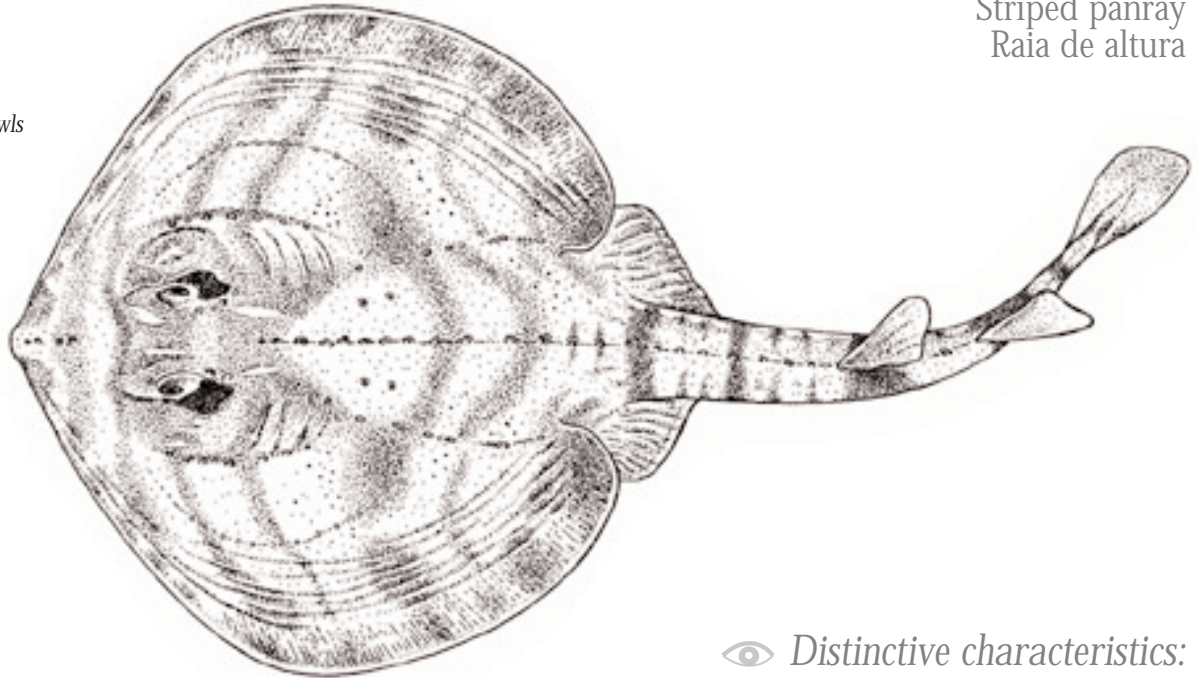
Raie tigrée
Striped panray
Raia de altura



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

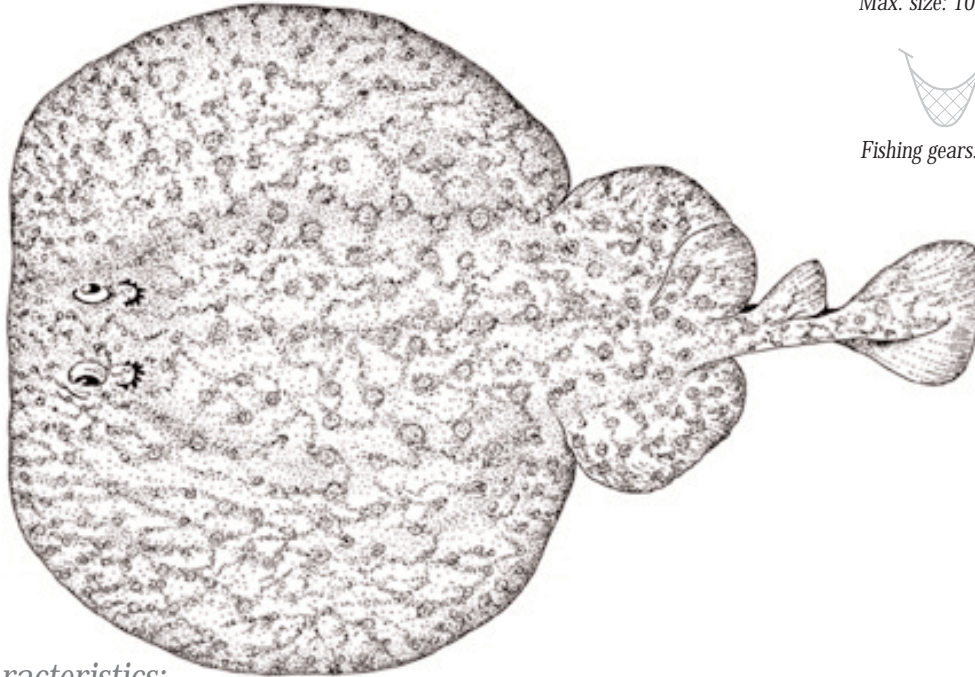
Torpille marbrée
Spotted torpedo
Dormideira



Max. size: 100 cm LT



Fishing gears: trawls



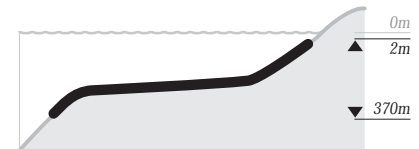
Distinctive characteristics:

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

Torpedo (*Torpedo*) *torpedo*

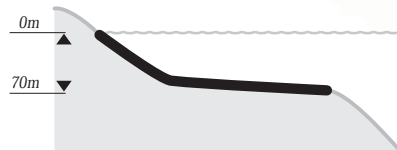
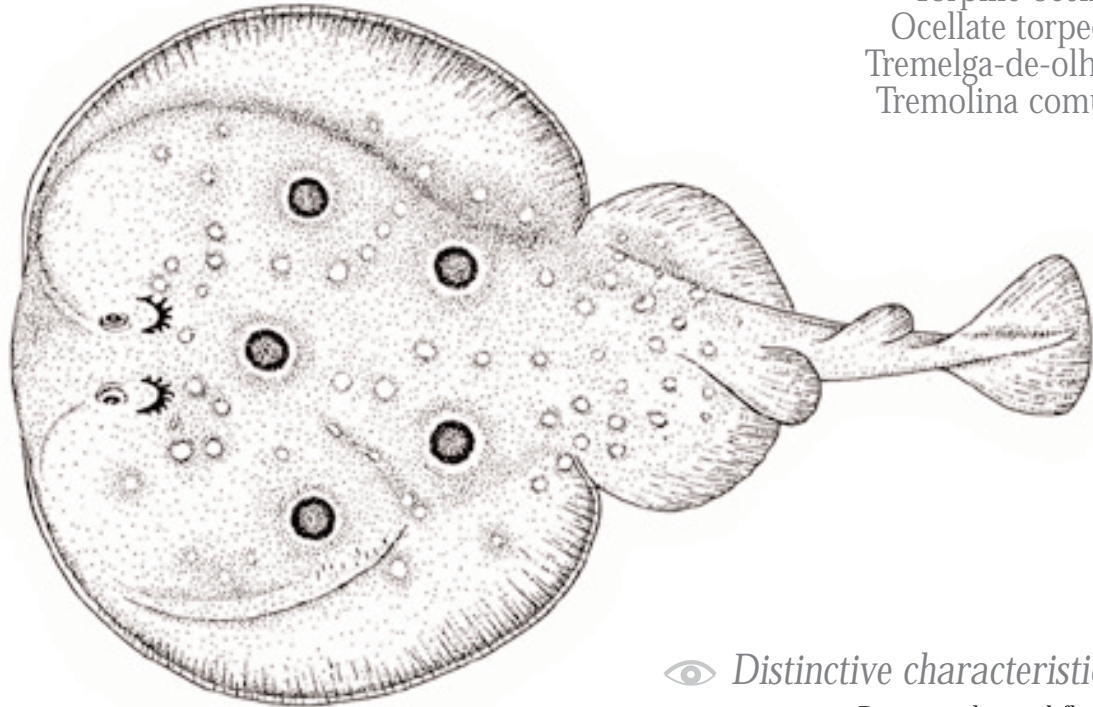
Torpille ocellée
Ocellate torpedo
Tremelga-de-olhos
Tremolina comùn



Max. size: 60 cm LT



Fishing gears: trawls



Habitat: coastal, on the bottom

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

Torpedinidae

Torpedo (Torpedo) bauchotae

Torpille à rosettes
Rosette torpedo
Tremelga roseta

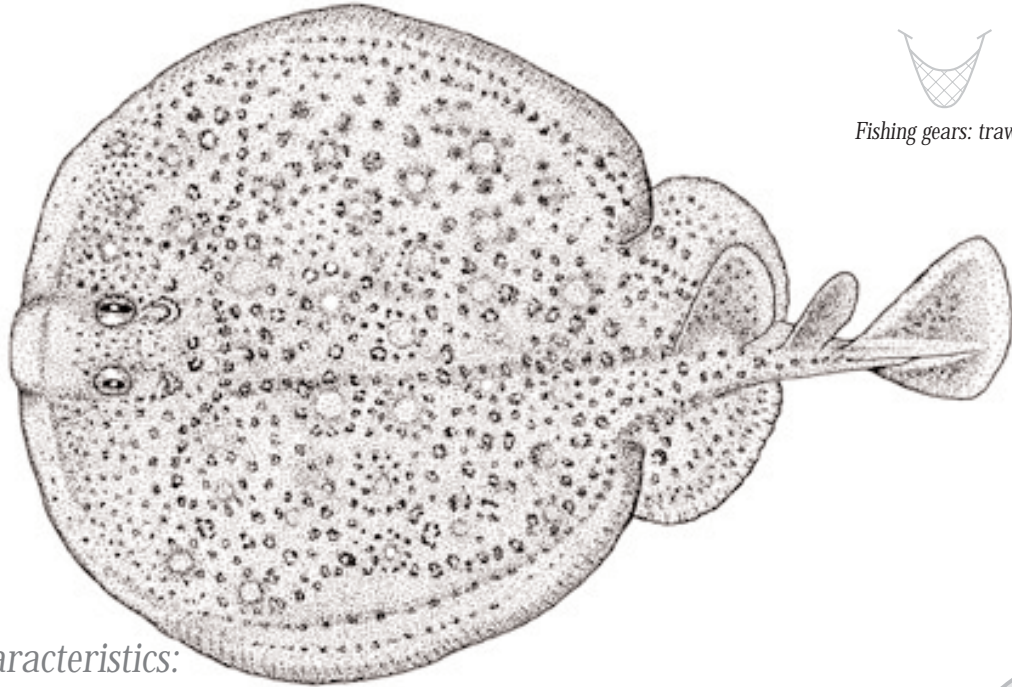
Rare: should
be preserved



Max. size: 60 cm LT



Fishing gears: trawls



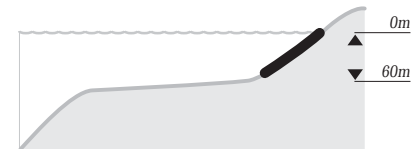
Distinctive characteristics:

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

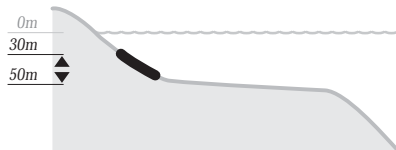
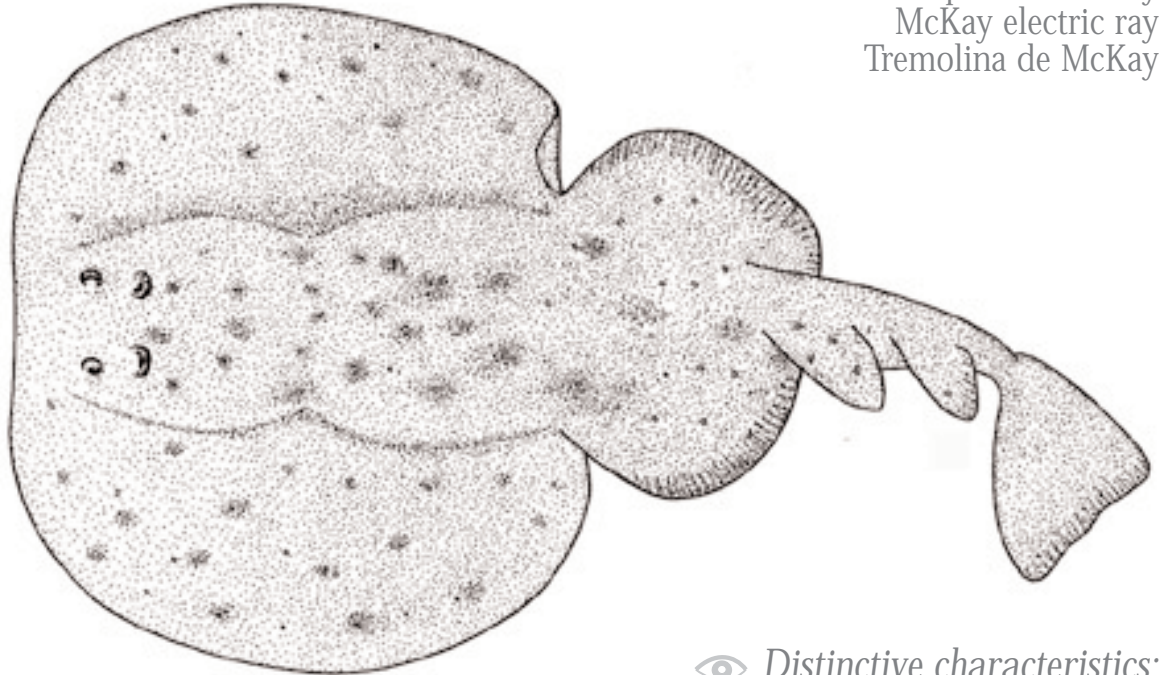
Torpille de McKay
McKay electric ray
Tremolina de McKay



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

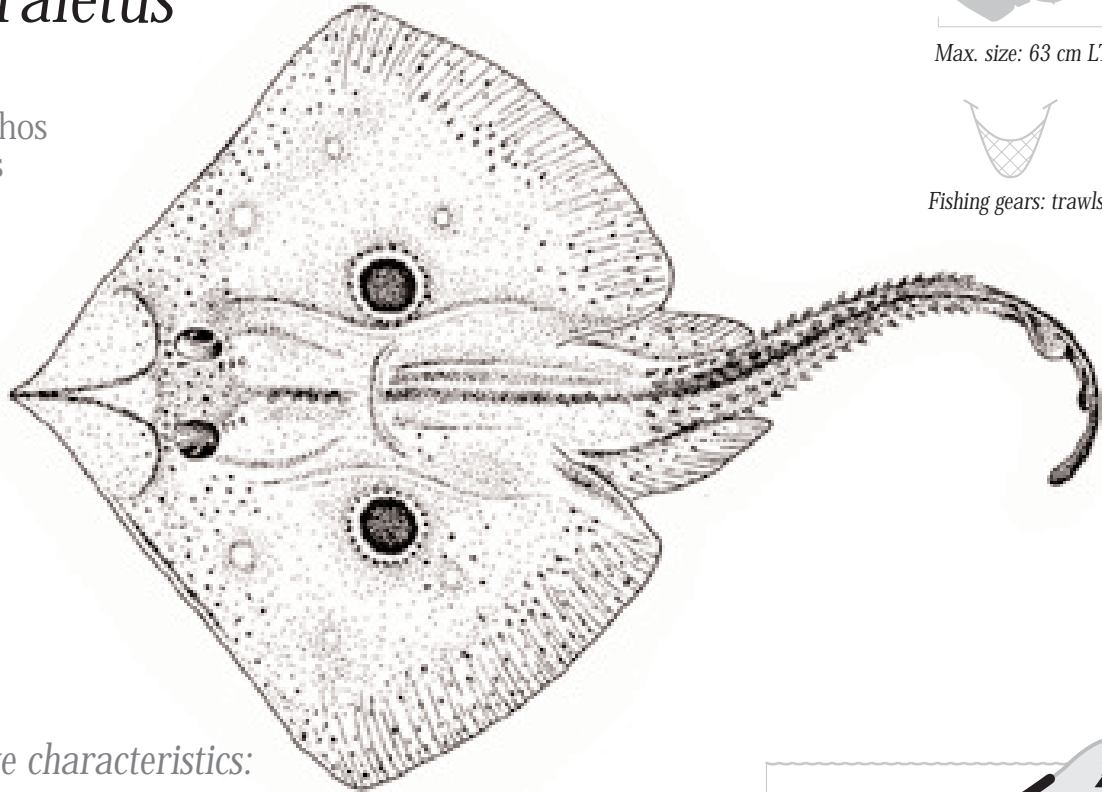
Raja miraletus

Raie-miroir

Twineye skate

Raia-de-dois-olhos

Raya de espejas



Max. size: 63 cm LT



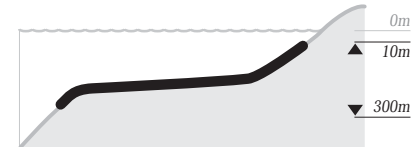
Fishing gears: trawls

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

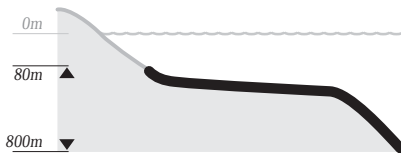
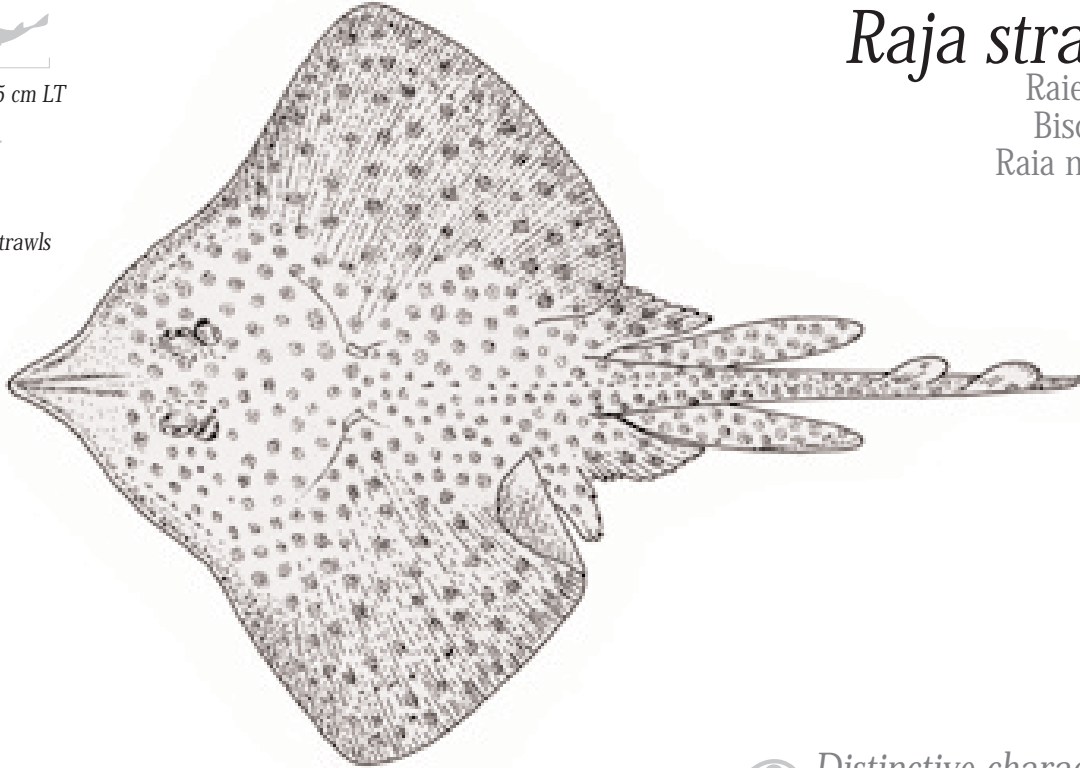
Raia manchada



Max. size: 85 cm LT



Fishing gears: trawls



Habitat: outer shelf and continental slope

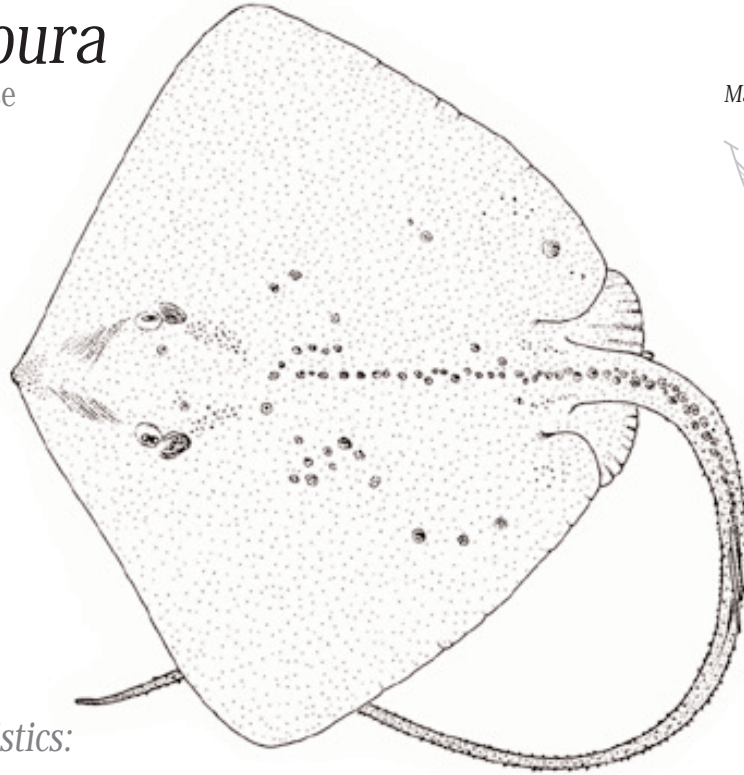
Distinctive characteristics:

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



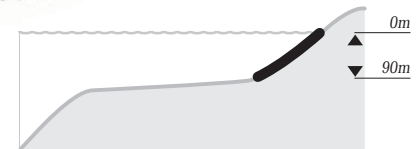
Max. size: ± 2 m disc width



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

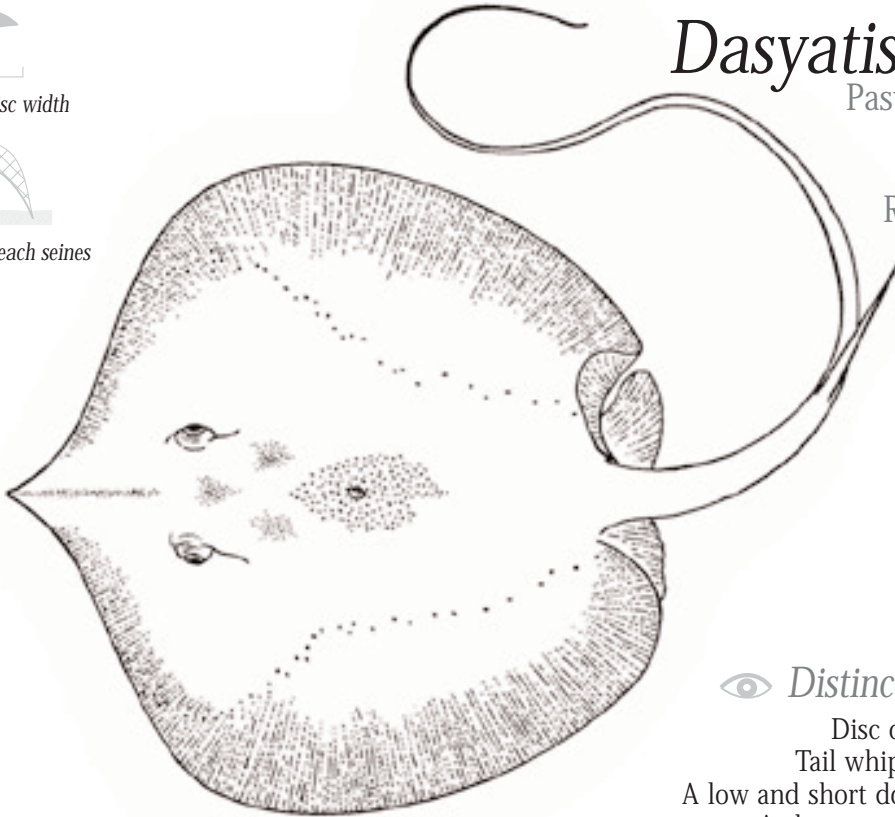
Raya-latigo margarita



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

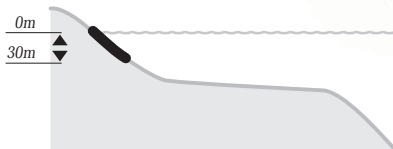
A short cutaneous fold under the tail

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

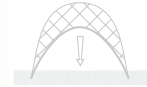
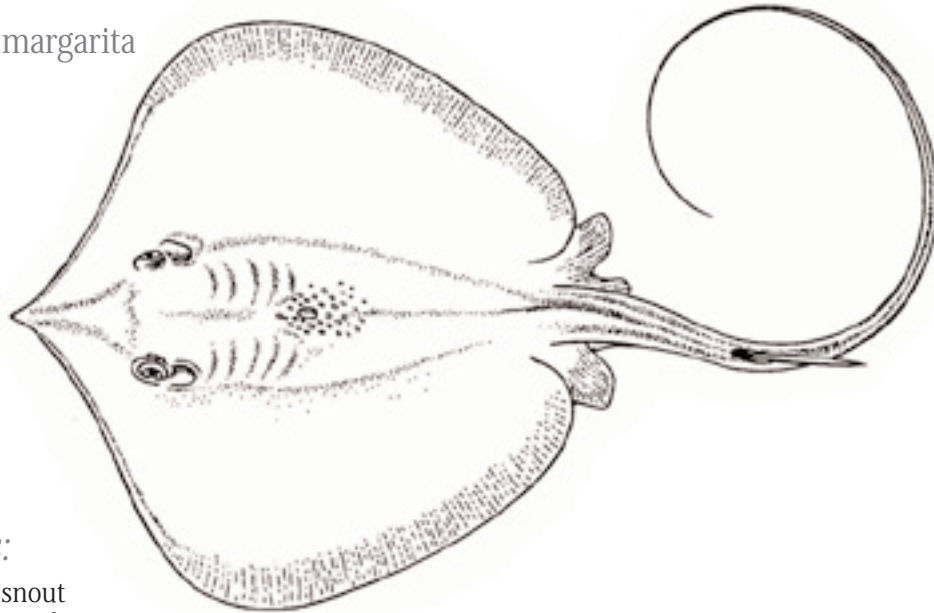
Pastenague perlée

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

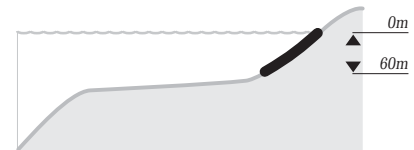
A short cutaneous fold under the tail

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

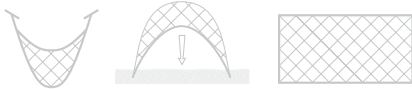
Pasténague commune

Common stingray

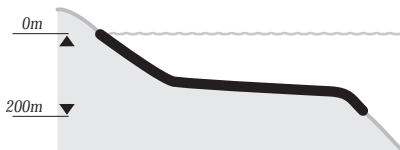
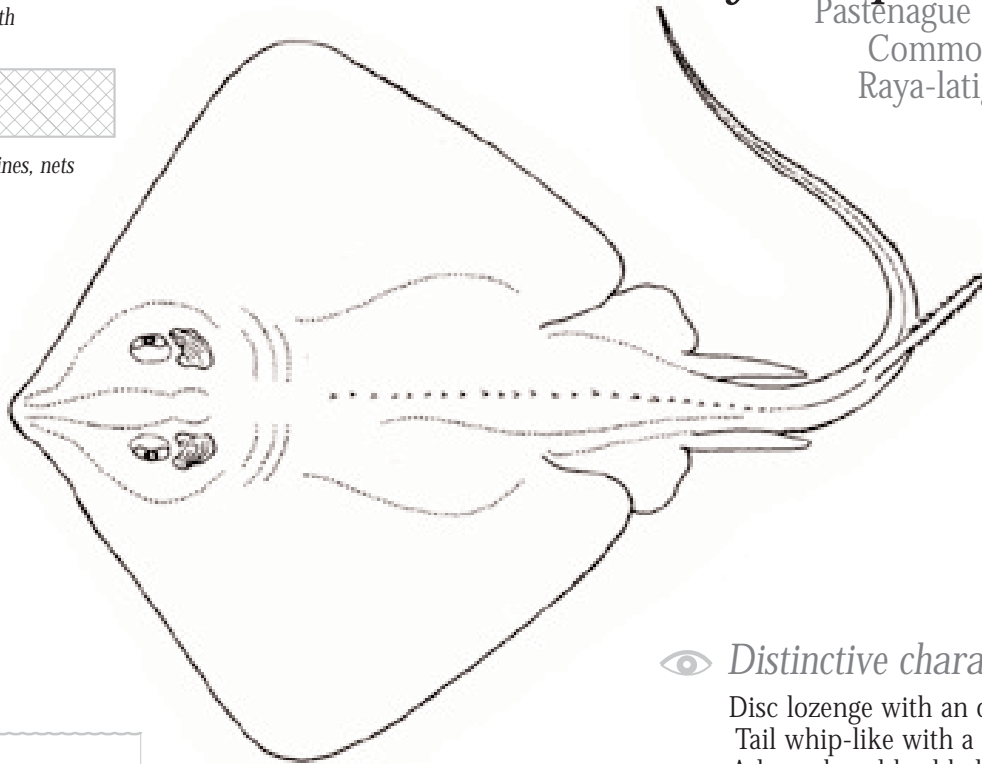
Raya-latigo comùn



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

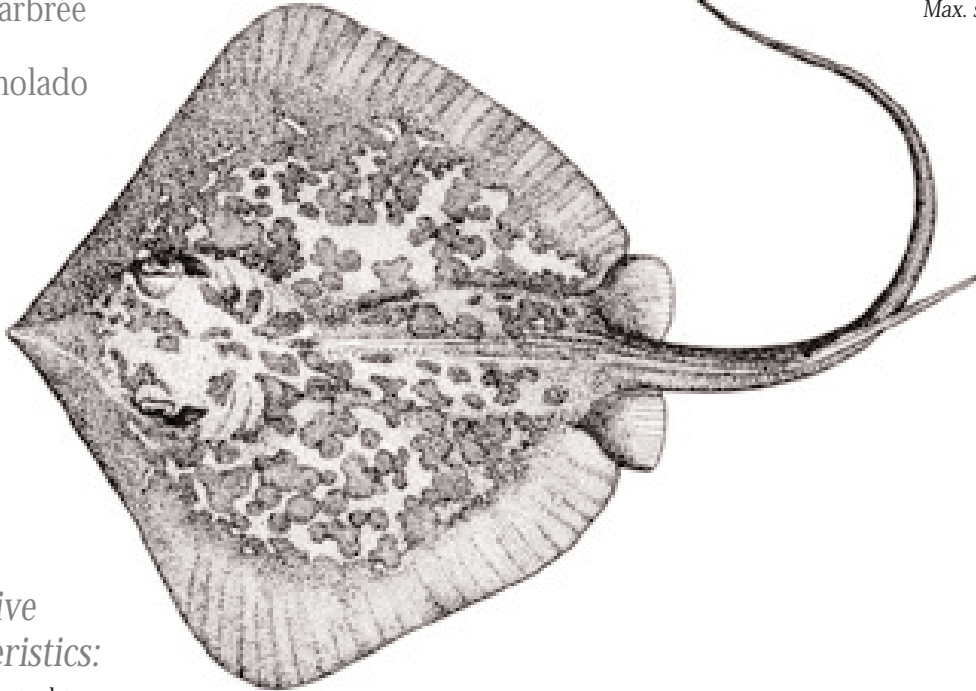
Skin naked except for a mediodorsal row of small thorny tubercles

Colour plain greyish or greenish brown

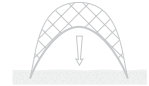
Dasyatidae

Dasyatis marmorata

Pastenague marbrée
Blue stingray
Chucho marmolado



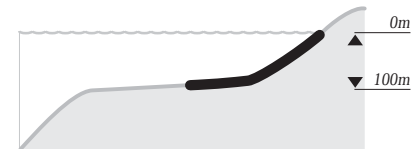
Max. size: 75 cm disc width



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

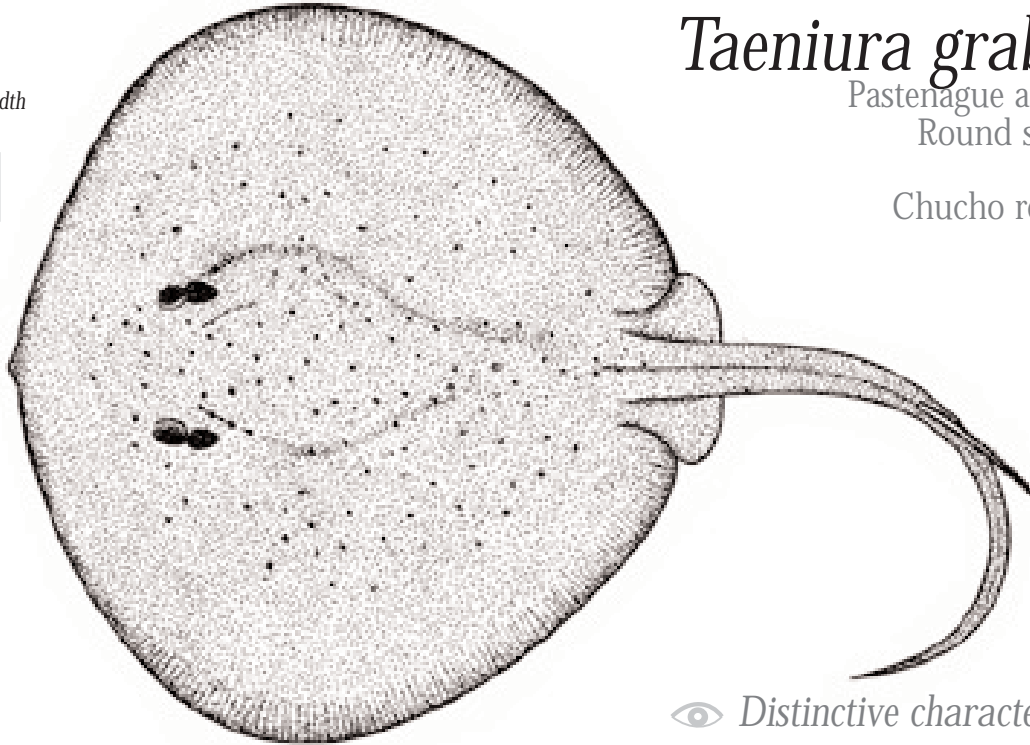
Chucho redondo



Max. size: 100 cm disc width



Fishing gears: trawls, nets



Distinctive characteristics:

Disc almost circular

Tail relatively short and thick, with a sting

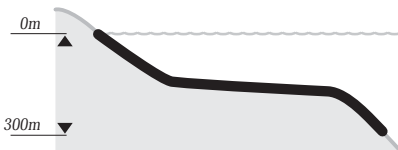
No dorsal keel below the sting

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

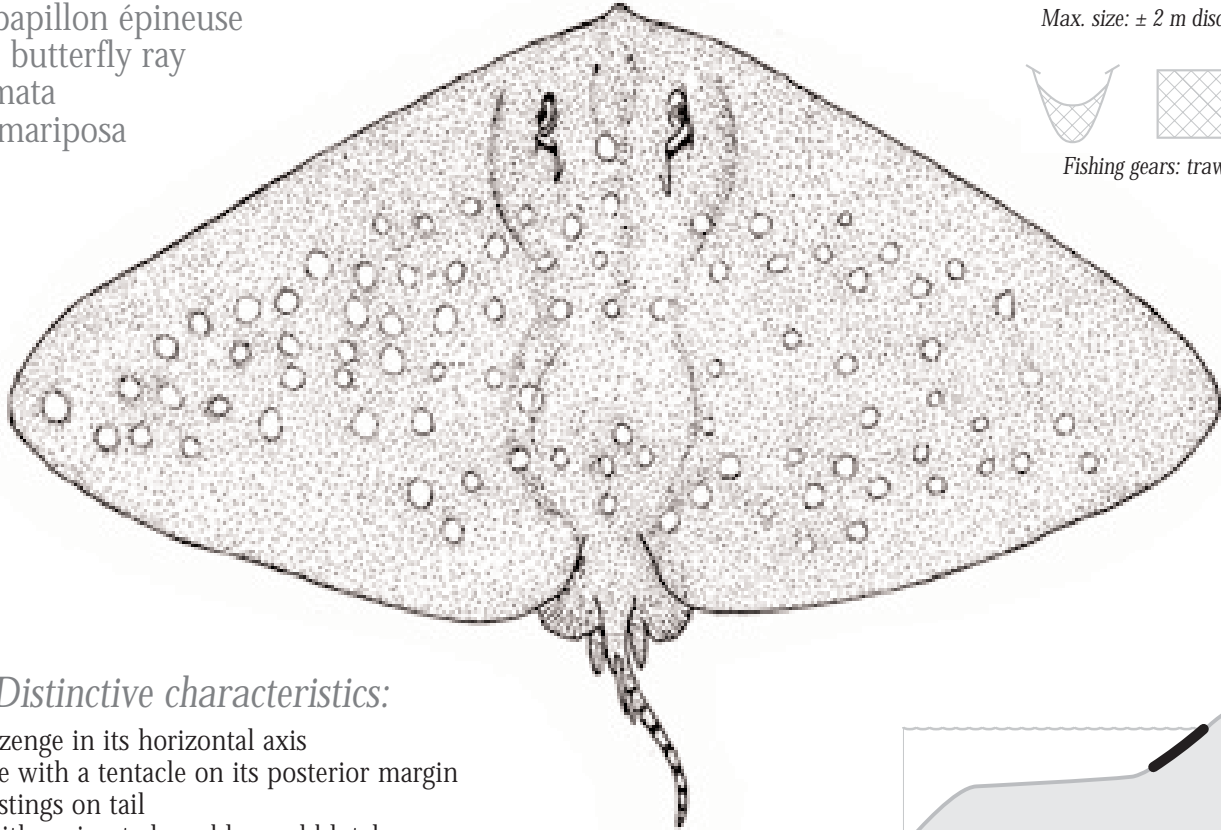
Raie-papillon épineuse
Spiny butterfly ray
Uge-mata
Raya mariposa



Max. size: ± 2 m disc width

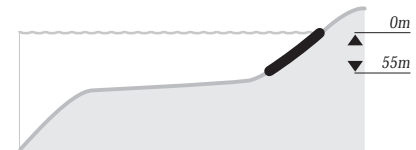


Fishing gears: trawls, nets



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

Gymnuridae

Gymnura micrura

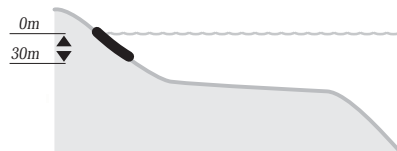
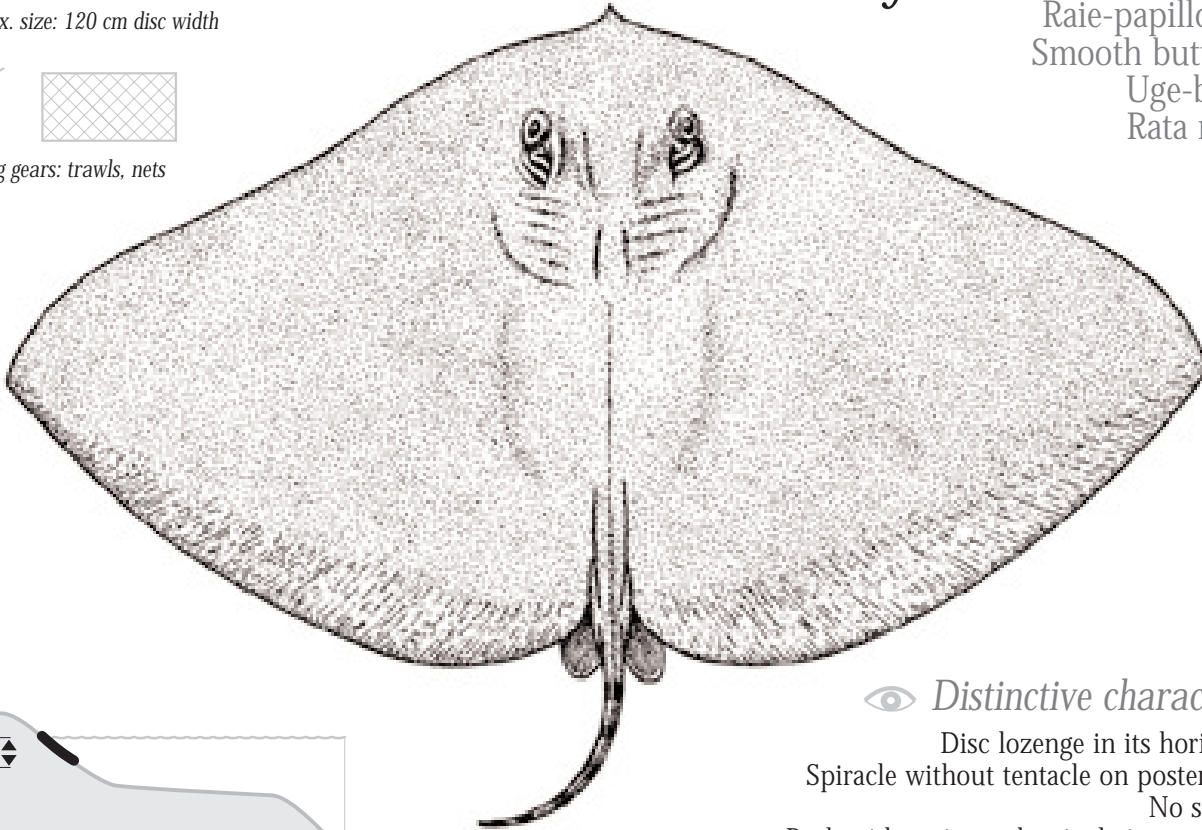
Raie-papillon glabre
Smooth butterfly ray
Uge-borboleta
Rata mariposa



Max. size: 120 cm disc width



Fishing gears: trawls, nets



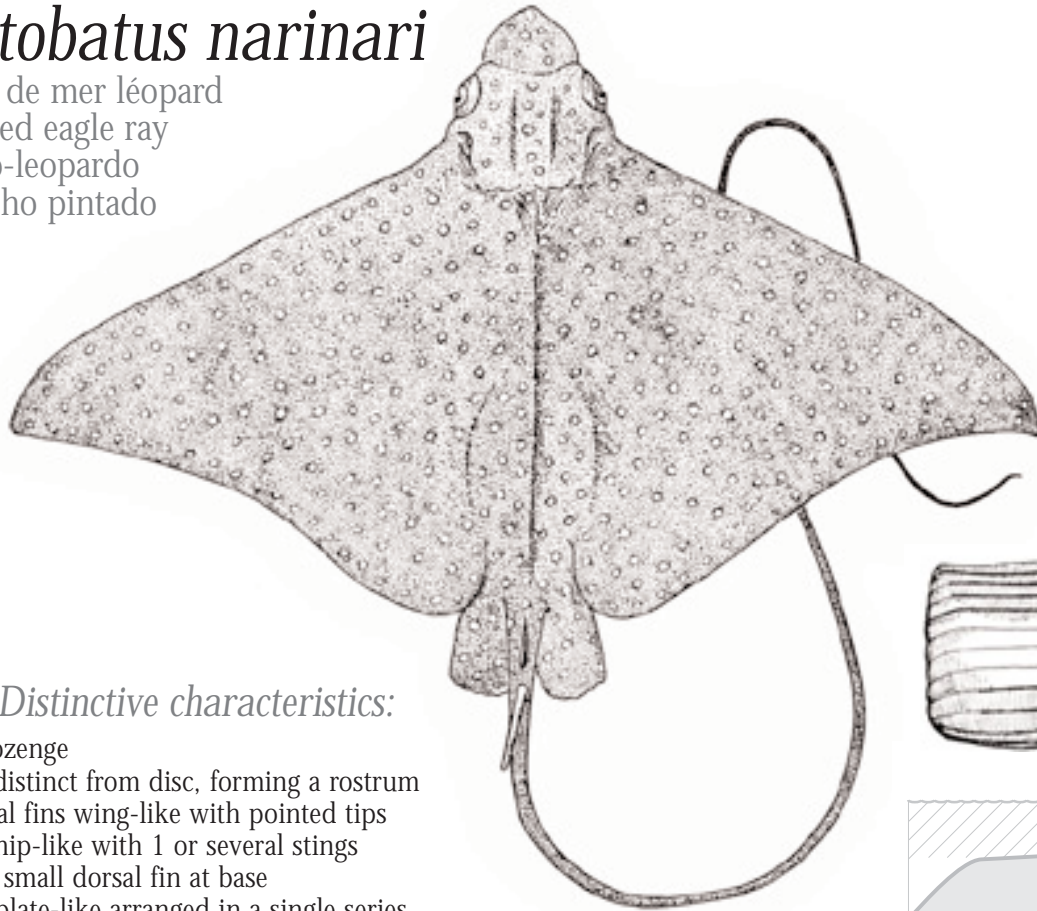
Habitat: coastal, on the bottom

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

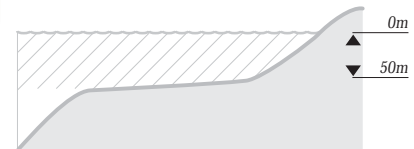
Aigle de mer léopard
Spotted eagle ray
Ratão-leopardo
Chucho pintado



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

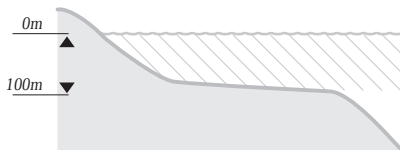
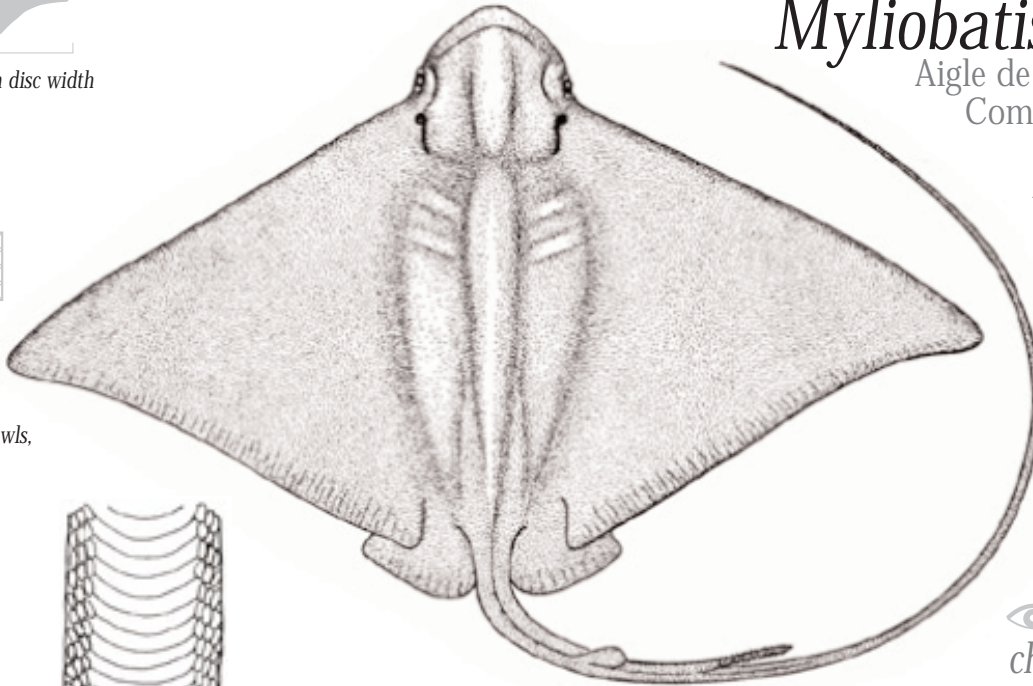
Aquila marina



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

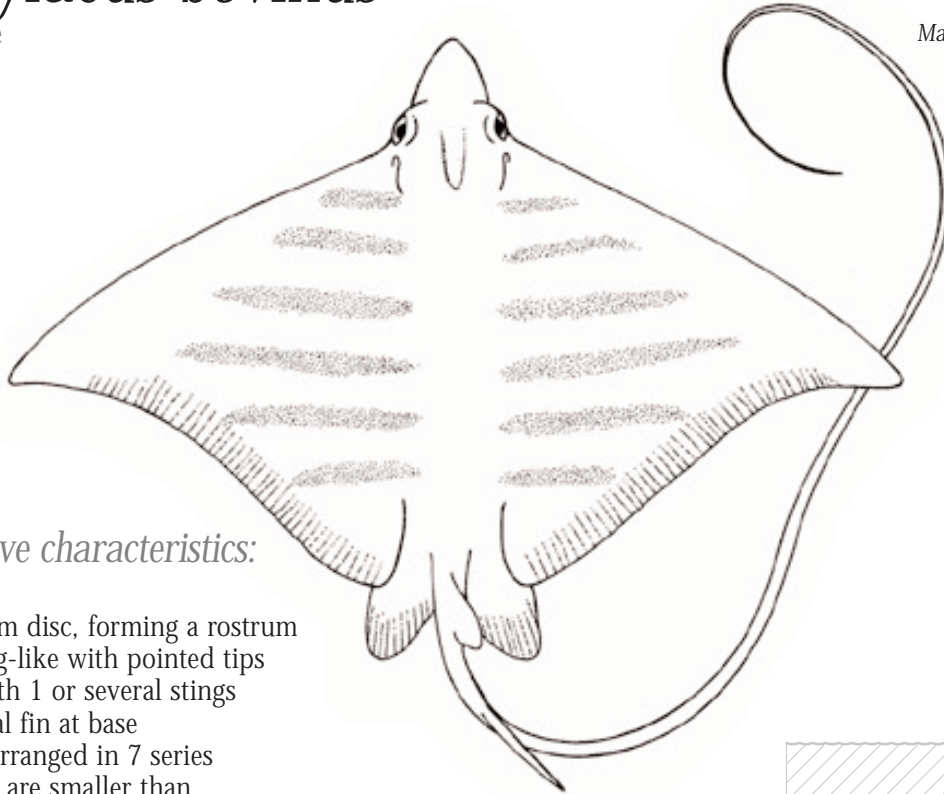
The lateral plates are smaller than the median one

Colour plain greenish brown or yellowish

Myliobatidae

Pteromylaeus bovinus

Aigle-vachette
Bullray
Bispo
Cuhcho vaca



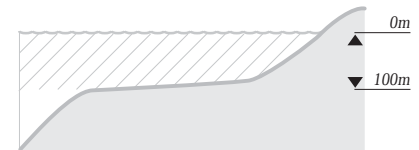
Max. size: 150 cm disc width



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 lusitaniene

Lusitanian cownose

Gavião-do-mar

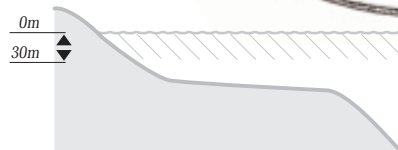
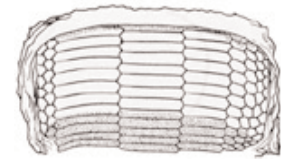
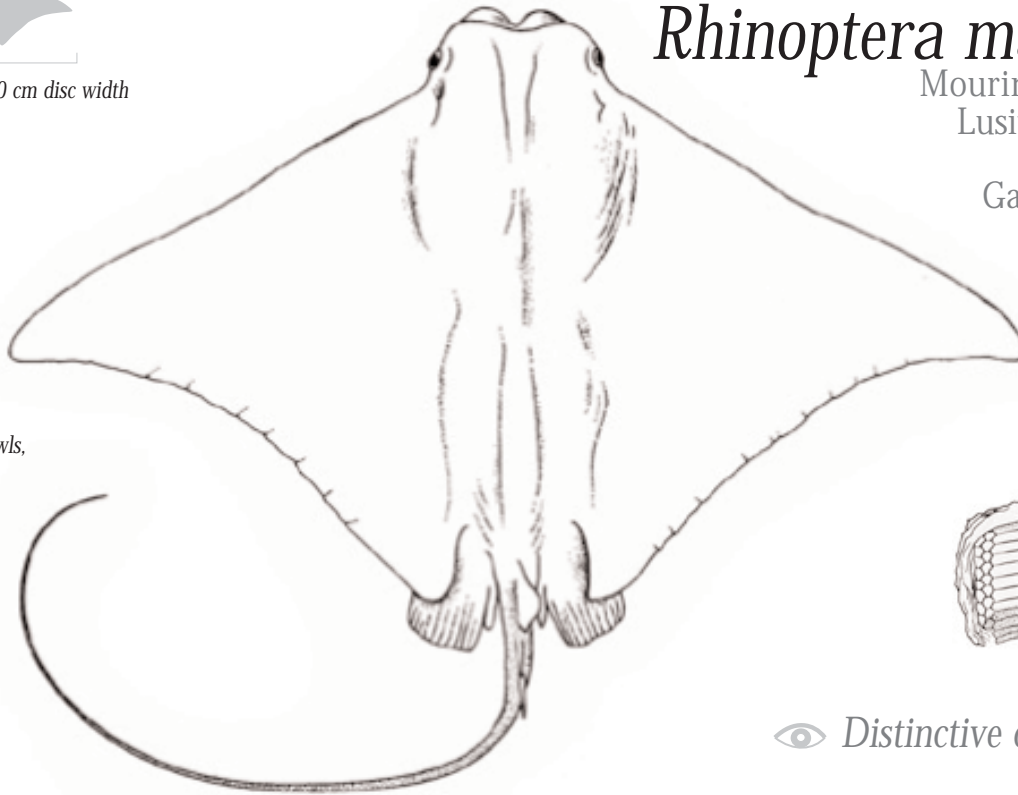
Gavilàn lusitànico



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

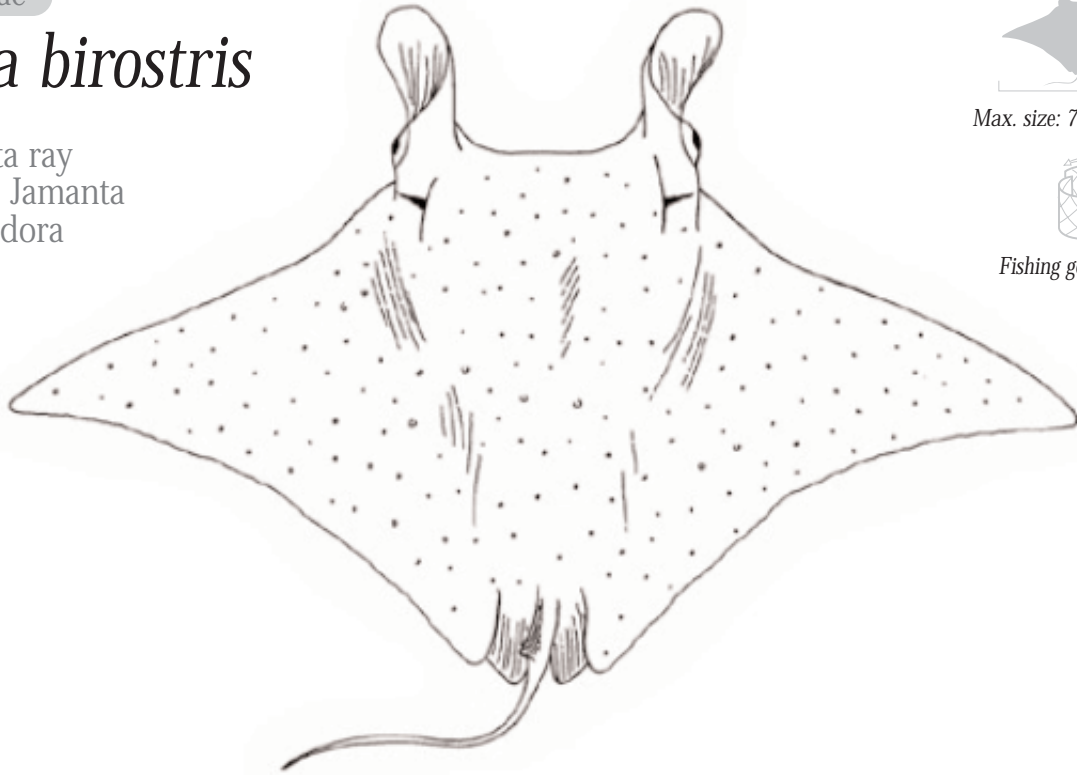
Manta birostris

Mante

Giant manta ray

Urjamanta, Jamanta

Manta voladora



Max. size: 7 m disc width



Fishing gears: seines

RAYS

Distinctive characteristics:

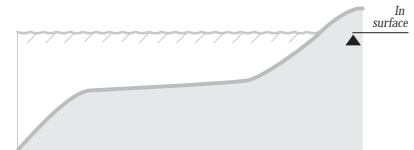
Head wide: more than 20% of disc width

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

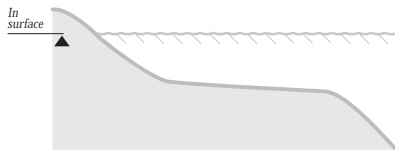
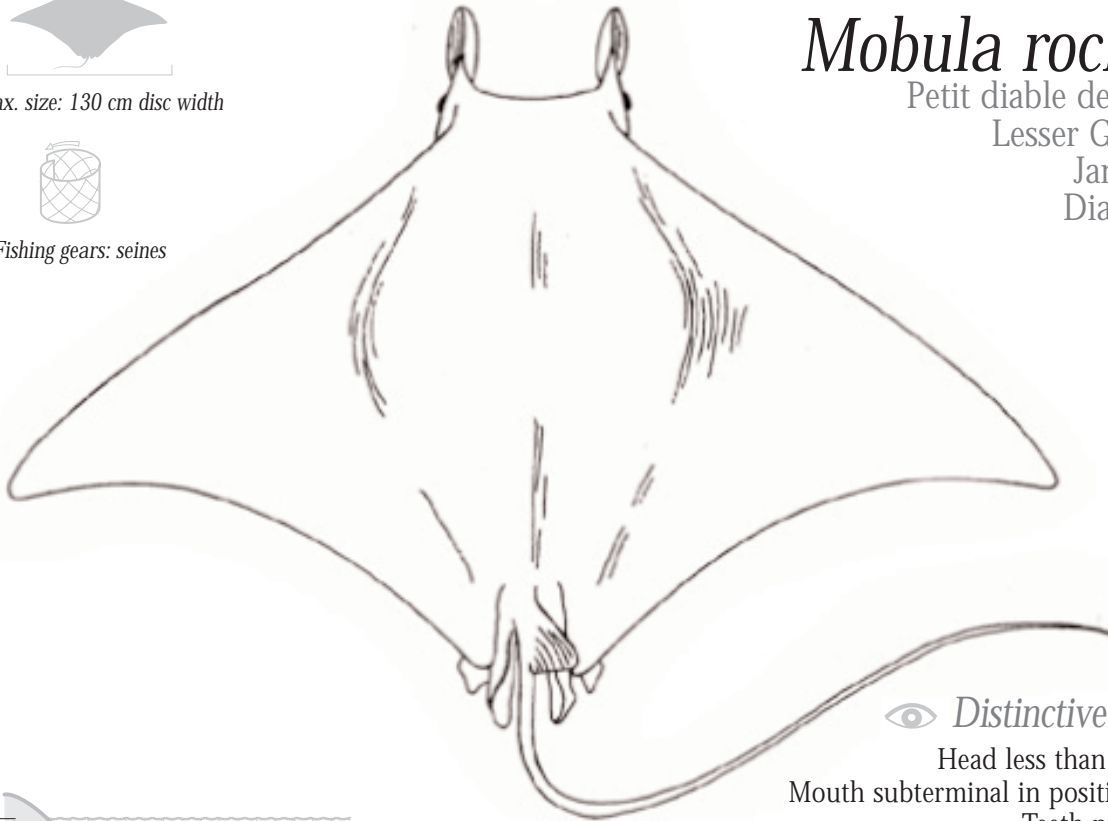
Diablito de Guinea



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 oculataP11



Squatina squatinaP12



Ginglymostoma cirratum.....P13



Rhincodon typus.....P14



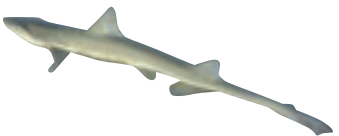
Alopias superciliosus.....P15



Alopias vulpinus.....P16



Isurus oxyrinchusP17



Leptocharias smithiiP18



Galeorhinus galeus.....P19



Mustelus mustelusP20



Paragaleus pectoralisP21



Carcharhinus altimus.....P22



Carcharhinus amboinensisP23



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



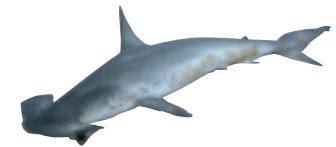
Rhizoprionodon acutus.....P36



Sphyrna lewini.....P37



Sphyrna mokarran.....P38



Sphyrna zygaena.....P39

Rays

P40



Rhynchobatus lubberti.....P45



Rhinobatos albomaculatus.....P46



Rhinobatos blochiiP47



Rhinobatos cemiculusP48



Rhinobatos irvineiP49



Rhinobatos rhinobatosP50



Zanobatus schoenleiniiP51



Torpedo marmorataP52



Torpedo torpedoP53



Torpedo bauchotaeP54



Torpedo mackayanaP55



Raja miraletus.....P56



Raja straeleni.....P57



Dasyatis centroura.....P58



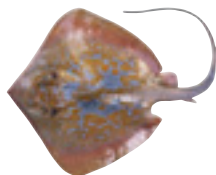
Dasyatis margarita.....P59



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 de Recherche et de Contrôle des Mammifères
de la Région d'Outre-Mer de la Région de l'Inde