

FAO SPECIES IDENTIFICATION CARDS



SHARKS and RAYS
of the
Mediterranean and
Black Sea



A POCKET GUIDE
by FAO FishFinder
Species Identification and Data Programme

FAO
FISH
FINDER

FAO. Sharks and Rays of the Mediterranean and Black Sea. FAO Species Identification Cards. Rome, FAO. 2009. 113 p.

The FAO International Plan of Action (IPOA) for the Conservation and Management of Sharks aims among others at (i) improving species-specific catch and landings data; and (ii) facilitating the identification and reporting of species-specific biological and trade data. The present cards are intended to help alleviate the lack of knowledge about elasmobranch diversity in the Mediterranean and Black Sea and the inadequate fisheries data collection that prevents proper assessment and management of these important resources.

The information contained in this document is largely based and extracted from the Field Identification Guide to the Sharks and Rays of the Mediterranean and Black Sea. FAO Species Identification Guide for Fishery Purposes. Rome, FAO. 2005, by F. Serena.

Information on conservation status is based on evaluations made by the World Conservation Union (IUCN). Diagnoses reported here refer to the Mediterranean (assessed in 2007).

Local names commonly used in the Mediterranean countries were provided by the coordinators.

Colour illustrations: Emanuela D'Antoni.

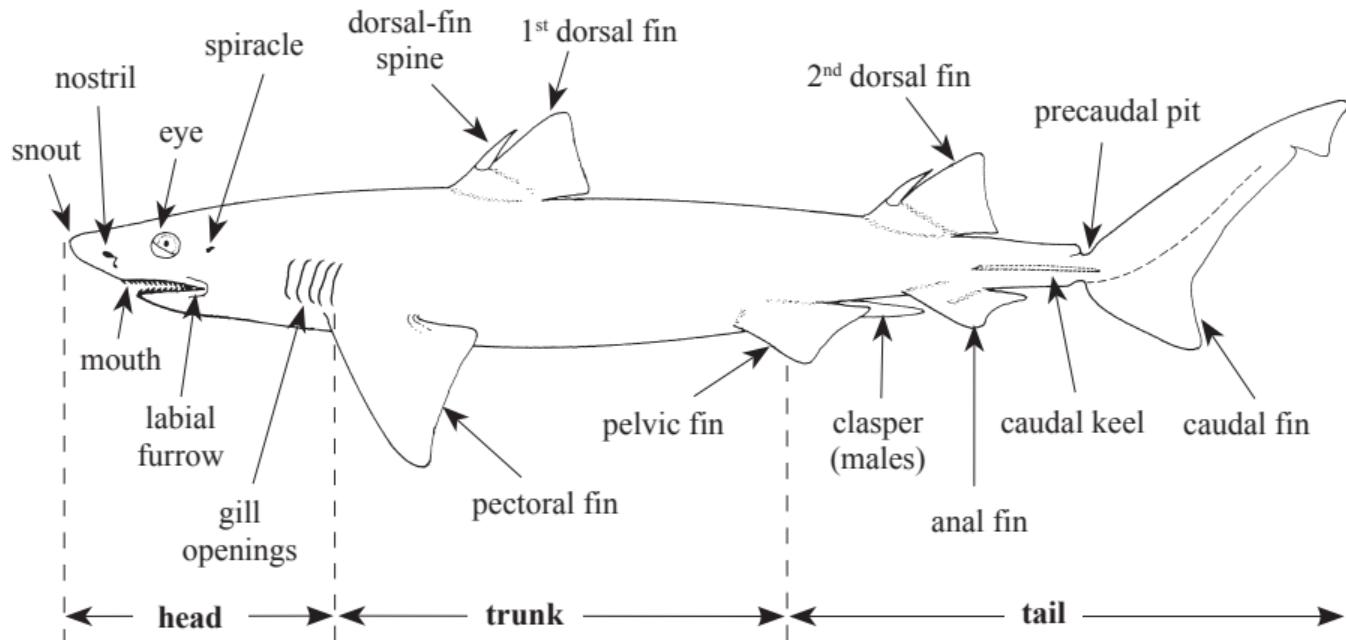
Illustration advisers: Fabrizio Serena and Ramon Bonfil.

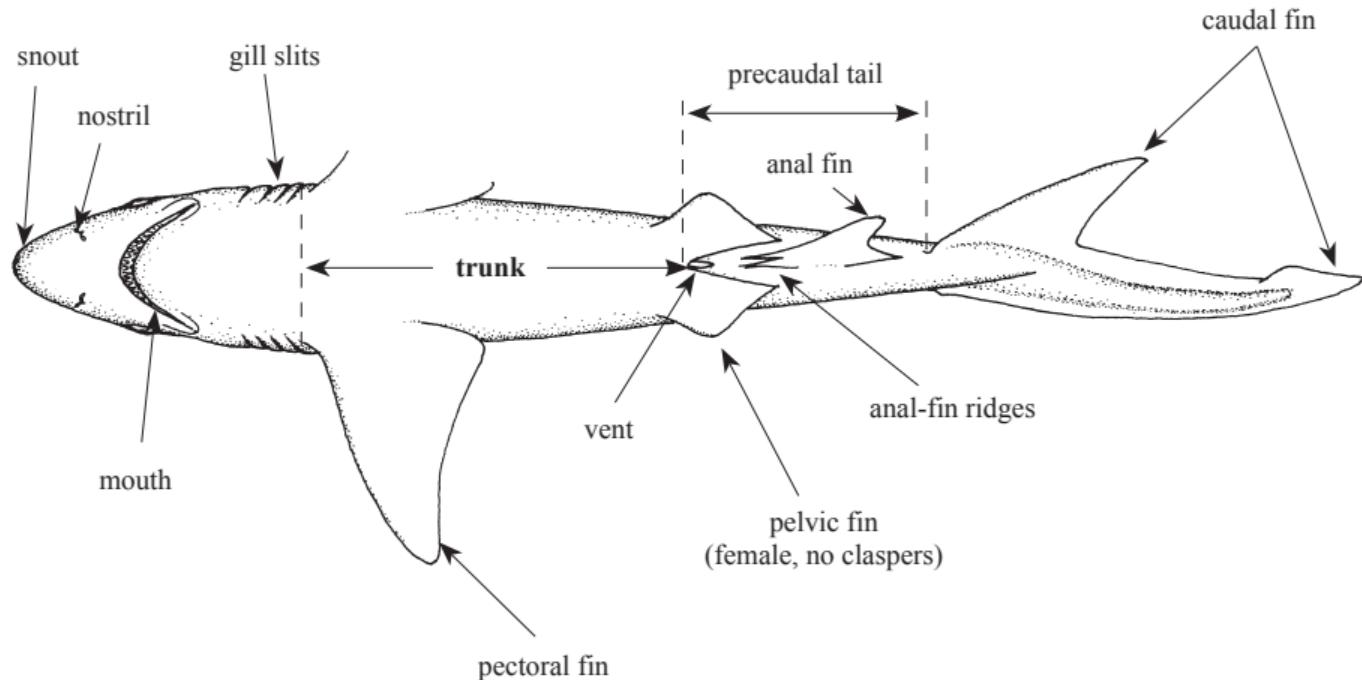
Scientific reviser: Nicoletta De Angelis.

Page composition: Michèle Kautenberger-Longo.

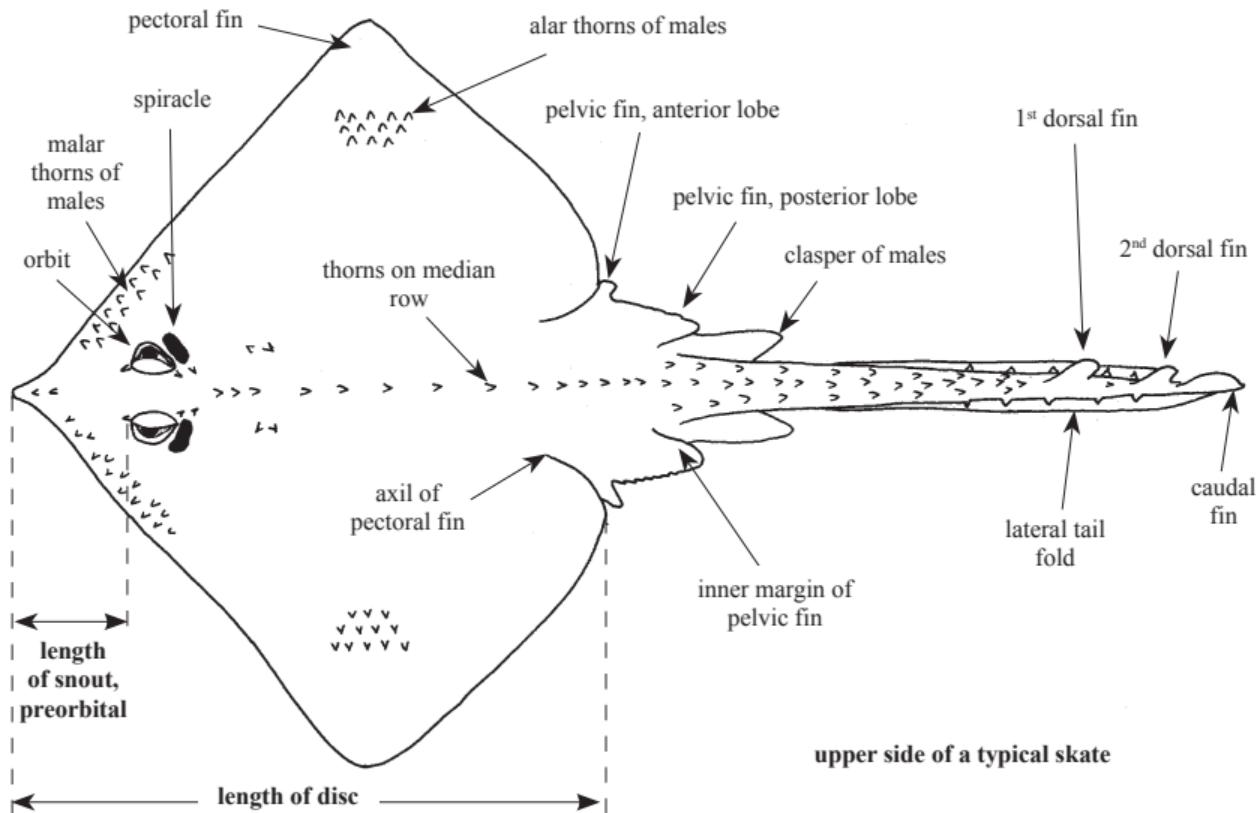
Coordination: Monica Barone and Michel Lamboeuf.

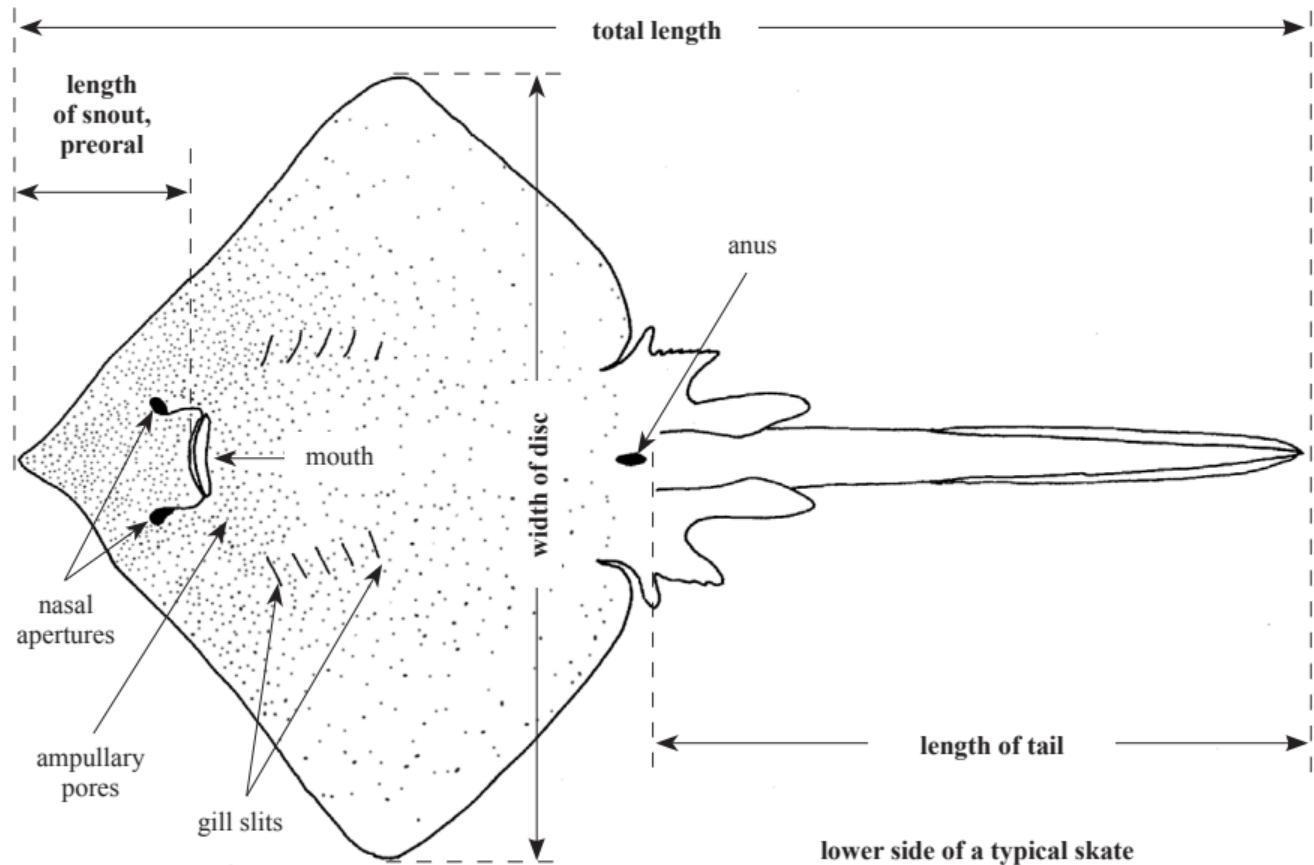
SHARKS





RAYS, SKATES, GUITARFISHES and MANTAS

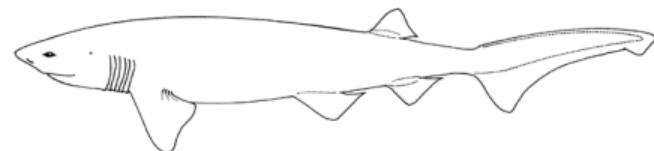




HEXANCHIFORMES

HEXANCHIDAE

6 or 7 gill slits, 1 dorsal fin.



Pages 9–12

SQUALIFORMES

SQUALIDAE, CENTROPHORIDAE, ETMOPTERIDAE, SOMNIOSIDAE, OXYNOTIDAE, DALATIIDAE

No anal fin, body not ray-like.

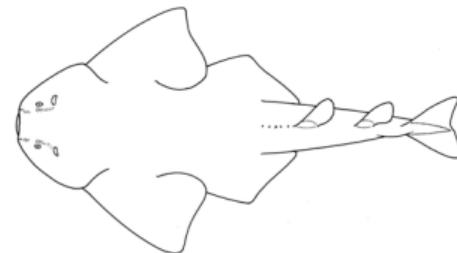


Pages 13–26

SQUATINIFORMES

SQUATINIDAE

Body flattened, ray-like mouth terminal,
fins not attached to head.



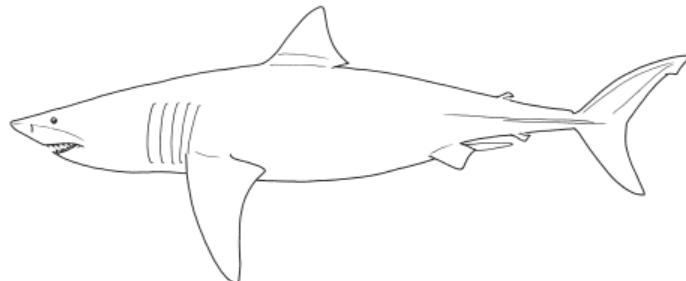
27–30

LAMNIFORMES

Pages 31–42

ALOPIIDAE, CETORHINIDAE, LAMNIDAE

5 gill slits, 2 dorsal fins, no nictitating eyelid.

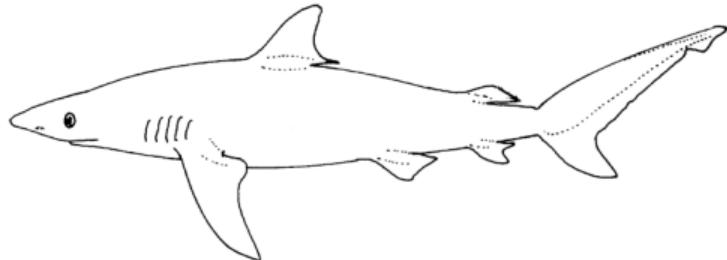


CARCHARHINIFORMES

Pages 43–70

SCYLIORHINIDAE, TRIAKIDAE, CARCHARHINIDAE, SPHYRNIDAE

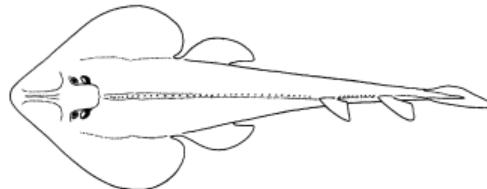
5 gill slits, 2 dorsal fin, nictitating eyelid.



RAJIFORMES

RHINOBATIDAE

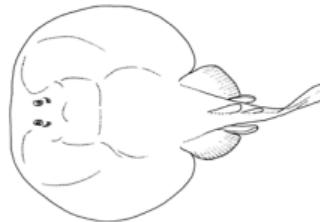
Snout greatly elongated, wedge-shaped.



Pages 71–72

TORPEDINIDAE

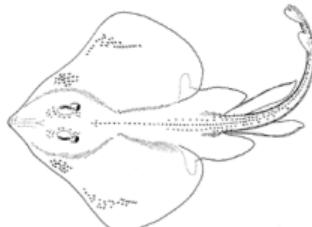
Tail thick with fins, fleshy body, naked skin.



Pages 73–78

RAJIDAE

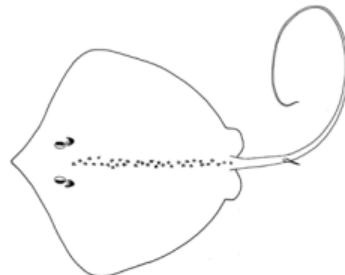
Tail thick with fins solid body, denticles sometimes present.



Pages 79–100

DASYATIDAE

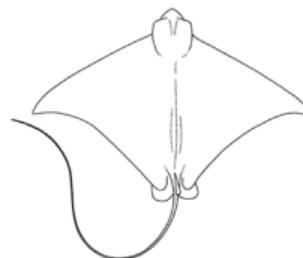
Tail thin with stinger, head not marked off from disc with less than its length.



Pages 101–104

MYLIOBATIDAE

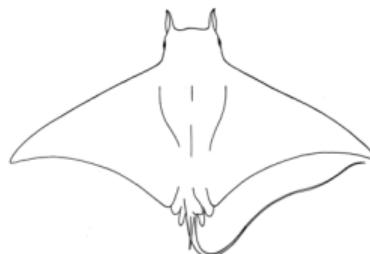
Tail thin with stinger, head marked off from disc, cephalic fins absent.



Pages 105–106

MOBULIDAE

Tail thin with stinger, head marked off from disc, cephalic fins present.

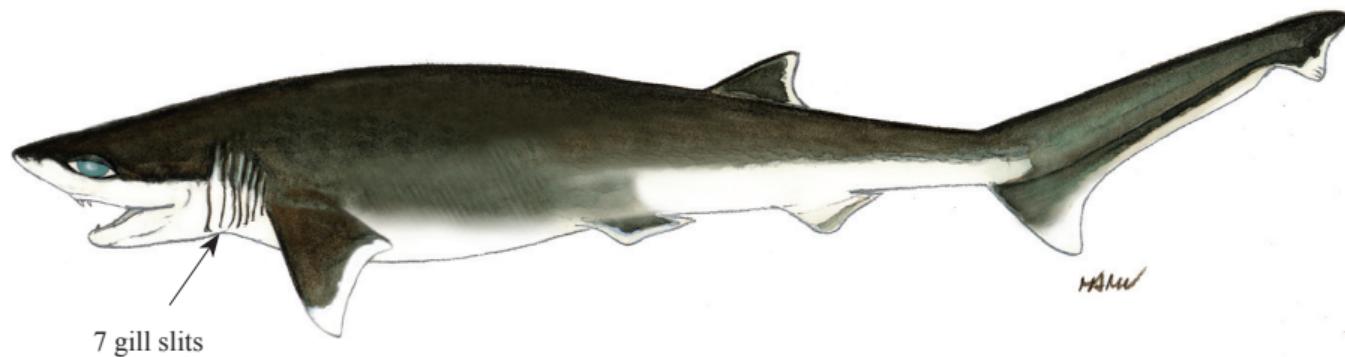


Pages 107–108

FAO names: En – Sharpnose seven-gill shark; Fr – Requin perlon; Sp – Cañabota bocadulce.

Size: From 100 to 140 cm total length (TL).

Conservation status: IUCN, Vulnerable.



HEXANCHIDAE

Heptranchias perlo

Habitat and biology: Usually benthic at depths from 50 to 400 m, occasionally to 1 000 m, often near shelf edge, in warm waters. Ovoviparous, litters of about 9 to 20.

Importance to fisheries: Seldom caught as bycatch by bottom trawls and longlines in epibathyal and bathyal grounds.

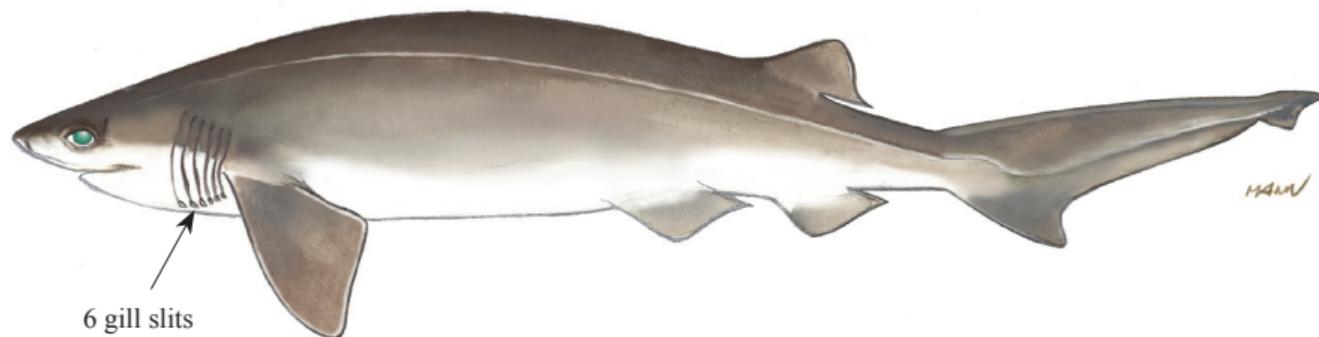
Local names: Boz camgöz; Keresh; Murruna ta' seba garğı; Peshkaqen me dhembe; Requin perlon; Sheva; Squalo manzo; Volonja sedmoškrgaš; Εφτακαρχαρίας; Σπρίλιος;

كلب البحر; كلب بوسعة; كلب لبحر

FAO names: En – Bluntnose six-gill shark; Fr – Requin griset; Sp – Cañabota gris.

Size: To 500 cm TL.

Conservation status: IUCN, Near Threatened.



HEXANCHIDAE

Hexanchus griseus

Habitat and biology: Usually in deep and cool waters, close to the bottom (100–1 000 m), possibly rising to surface at night. Ovoviparous, litters of about 20 to 50, possibly up to 100 embryos.

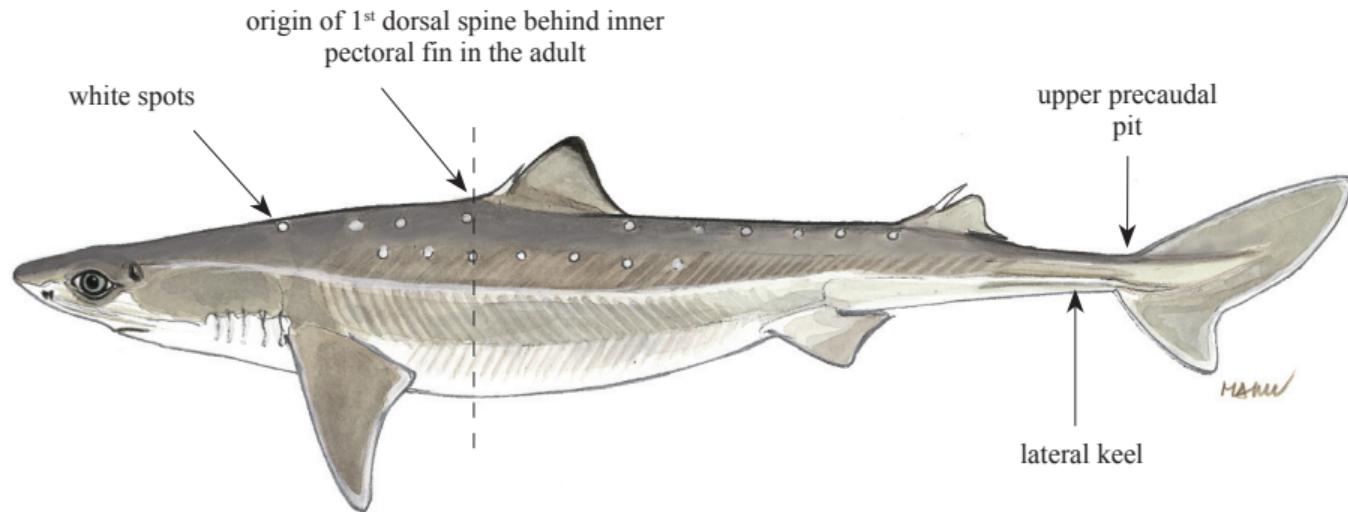
Importance to fisheries: Rarely caught as bycatch by bottom trawls and longlines in epibathyal and bathyal grounds. Occasional target species.

Local names: Boz camgoz baliği; Glavonja šestoskrgaš; Kaleb bahr; Murruna b'sitt garğı; Peshkaqen kokeshtypur; Requin griset; Šesteroskrgar; Shesh; Squalo capopiatto; Εξαρχαρίας; Σπρίλιος; كلب البحر; لبوة

FAO names: En – Spotted spiny dogfish; Fr – Aiguillat commun; Sp – Mielga.

Size: From 60 to 105 cm TL.

Conservation status: IUCN, Endangered (Vulnerable Black Sea).



SQUALIDAE

Squalus acanthias

Habitat and biology: Benthic on soft bottoms (10–700 m), rather sluggish but migratory, often forming large schools. Ovoviparous, one litter every two years with 1 to 20 embryos, gestation from 18 to 22 months.

Importance to fisheries: Caught by trawls, longlines and gillnets. In western Mediterranean areas the stock has collapsed.

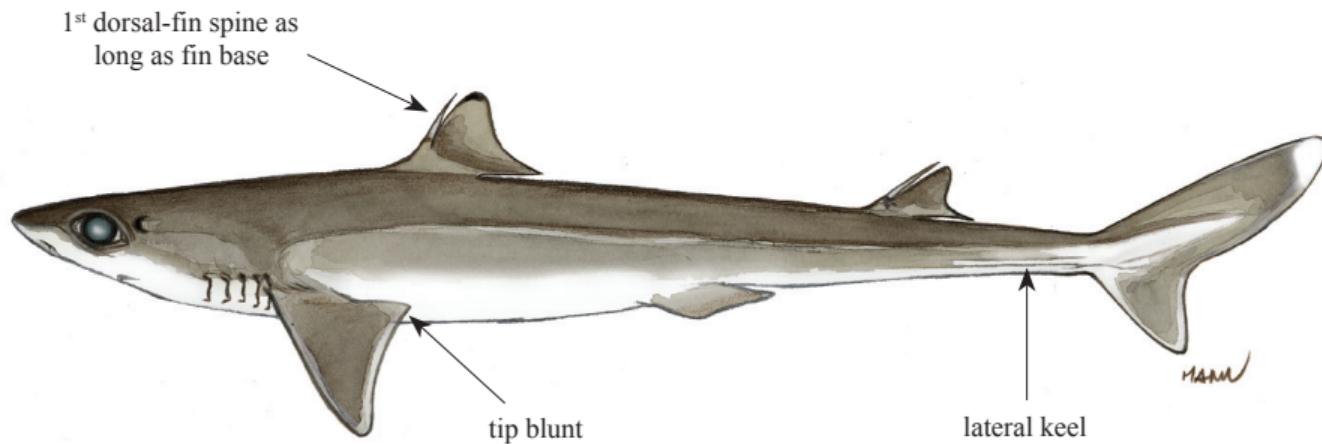
Local names: Aiguillat commun; Kaleb bahr; Kostelj; Kotzan nakod; Mahmuzlu camgöz baliği; Mazzola tax; Peshkagen; Spinarolo; trnež; Κεντρόνι; Κοκκαλάρης;

بوشويكة; قطاط; كلب البحر; كلب بوشوكة

FAO names: En – Longnose spurdog; Fr – Aiguillat-coq; Sp – Galludo.

Size: From 50 to 80 cm; occasionally to 110 cm TL.

Conservation status: IUCN, Not Evaluated.



SQUALIDAE

Squalus blainvillei

Habitat and biology: Benthic at intermediate depth (15–720 m). Demersal on the continental shelf, living in tropical and temperate waters. Ovoviparous, one litter every two years with 4 to 9 embryos.

Importance to fisheries: Incidentally caught by bottom trawls and longlines.

Local names: Gri camgöz baliği; Kostelj; Kostelj vlastelin; Kotzan khadgoni; Mazzola tax; Peshkagen dy gjilperesh; Rjavi trnež; Spinarolo bruno; Wahsh; Γκριζοκεντρόνι; Κοκκαλάρης;

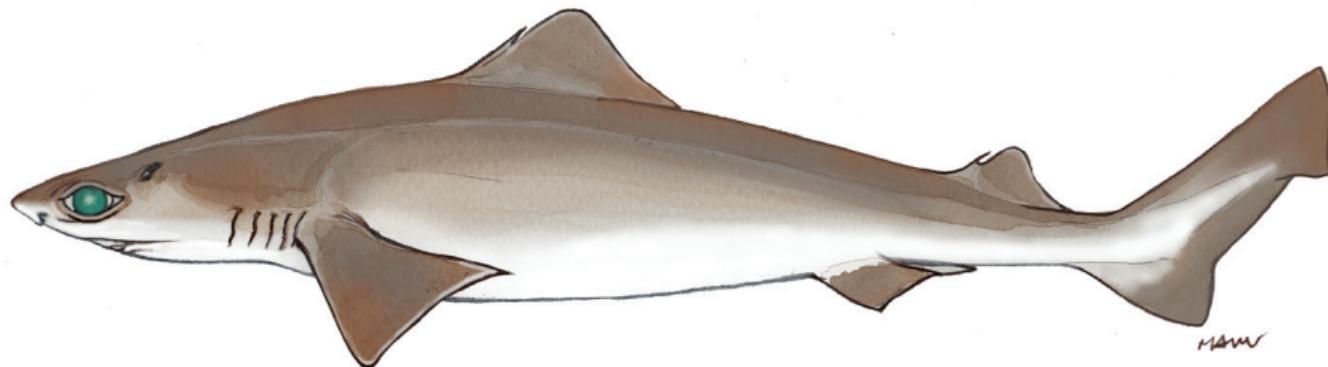
ؤيات بوشويكة; قطاط بوشوكة; كلب البحر; كلب بوشوكة

Centrophorus granulosus (Bloch and Schneider, 1801) CENTROPHORIDAE

FAO names: En – Gulper shark; Fr – Squale-chagrin commun; Sp – Quelvacho.

Size: To 120 cm TL.

Conservation status: IUCN, Vulnerable.



CENTROPHORIDAE

Centrophorus granulosus

Habitat and biology: Benthic over the upper slope (150–1 400 m) mostly at depths between 200 and 500 m. Ovoviparous with 1 or 2 embryos.

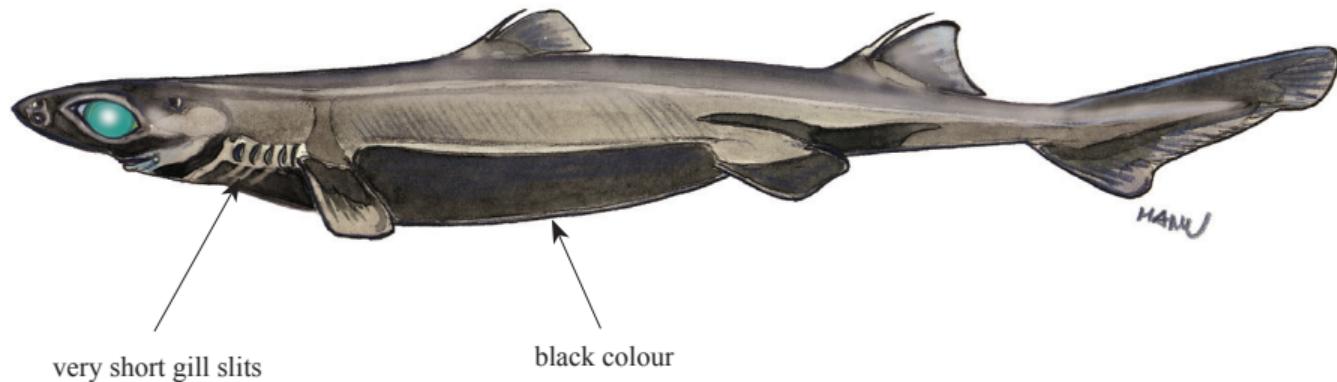
Importance to fisheries: Bycatch in bottom trawl, longline and recreational fisheries.

Local names: Köpekbalığı; Kostelj; Kostelj dubinac; Kotzan meguvshash; Mazzola tax; Oueiss; Peshk derr; Sagrí; Κοκκοκεντροφόρος; الكلب البحري; كلب بوعين

FAO names: En – Velvet belly; Fr – Sagre commun; Sp – Negrito.

Size: To 60 cm TL.

Conservation status: IUCN, Least Concern.



ETMOPTERIDAE

Etmopterus spinax

Habitat and biology: Benthic on shelf and slope (100–1 000 m) mostly below 300 m. Feeds on fishes, cephalopods and other invertebrates. Ovoviparous, with 6 to 20 embryos, young born at 9 to 11 cm.

Importance to fisheries: Bycatch in bottom trawl and longline fisheries, discarded.

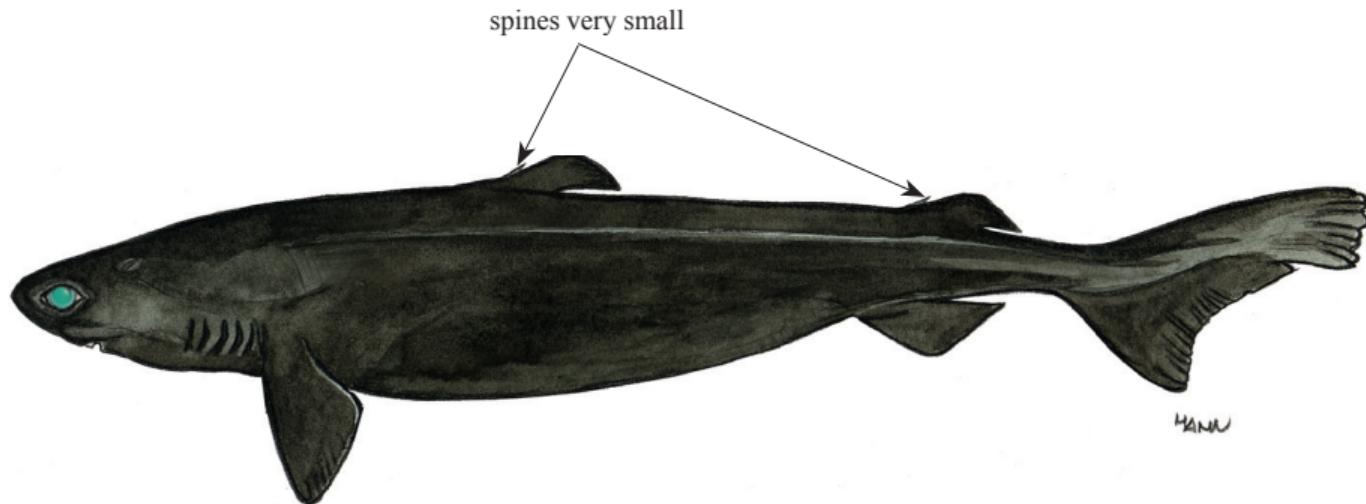
Local names: Kadife köpekbalığı; kostelj crnac; Kotzan ktifati; Peshkagen; Sagre commun; Sagrí nero; Μαυροάγκαθίτης;

بوشوكة; كلب البحر

FAO names: En – Portuguese dogfish; Fr – Pailona commun; Sp – Pailona.

Size: To 120 cm TL.

Conservation status: IUCN, Least Concern.



SOMNIOSIDAE

Centroscymnus coelolepis

Habitat and biology: Deepwater benthic from depths of 400 to 2 850 m; this sluggish species prefers cold waters of 12–13°C. Feeds on fishes. Ovoviparous with 13 to 16 embryos.

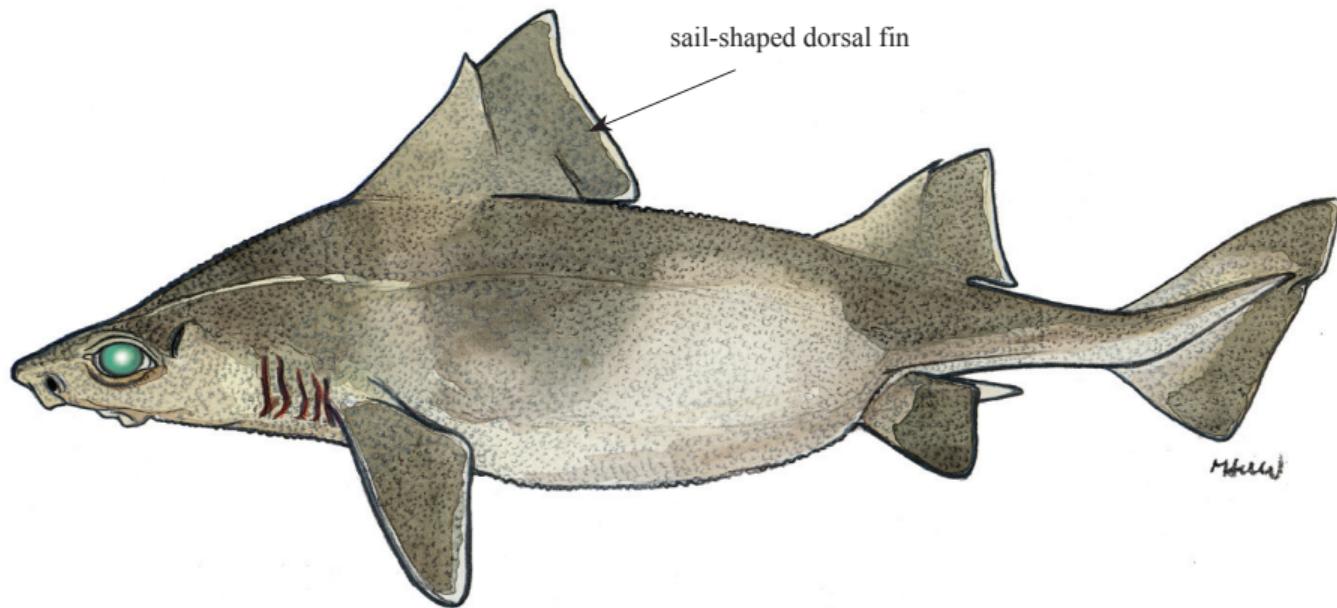
Importance to fisheries: Not commercially fished, accidentally caught as bycatch in bottom trawls.

Local names: Centroscimmo; Pailona commune; كلت لبحر

FAO names: En – Angular rough shark; Fr – Centrine commune; Sp – Cердо марино.

Size: To 150 cm, usually from 50 to 70 cm TL.

Conservation status: IUCN, Critically Endangered.



OXYNOTIDAE

Oxynotus centrina

Habitat and biology: Benthic on continental shelf and upper slope from depths between 60 and 660 m. Ovoviparous with probably 7 or 8 young. Maturing at about 50 to 70 cm.

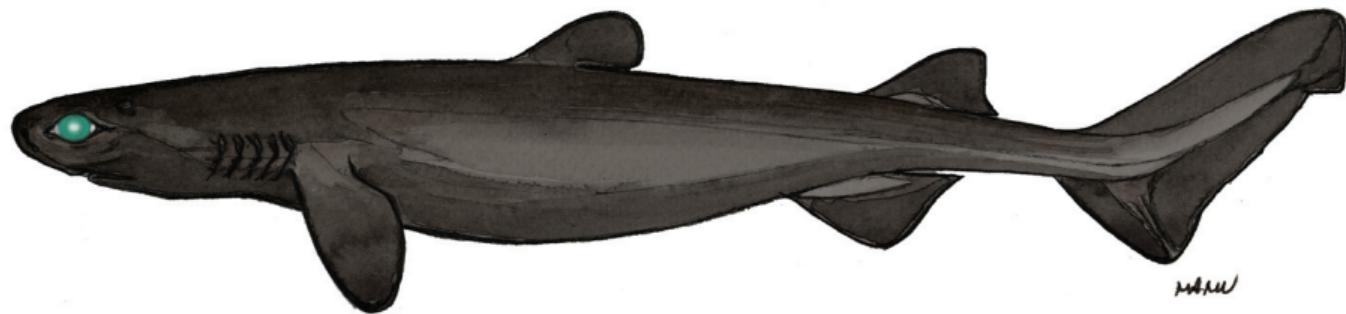
Importance to fisheries: Bycatch in deep-sea trawling.

Local names: Domuz baliği; Morski prašič; Pesce porco; Peshkderr; Pixxi porcu; Prasac; Trizan tznini; Οξύνωτος; Χοίρος; القرش عينين الباز; حمار بحر; كلب بحر

FAO names: En – Kitefin shark; Fr – Squale liche; Sp – Carocho.

Size: From 150 to 180 cm TL.

Conservation status: IUCN, Data Deficient.



DALATIIDAE

Dalatias licha

Habitat and biology: Benthic to mesopelagic from 90 to 1 200 m. Mainly on slopes at depths between 300 and 600 m. Ovoviviparous, 3 to 16 young born at 30 cm. Maturing at 77 to 121 cm for males and 117 to 159 cm for females.

Importance to fisheries: Bycatch in bottom trawl fishery.

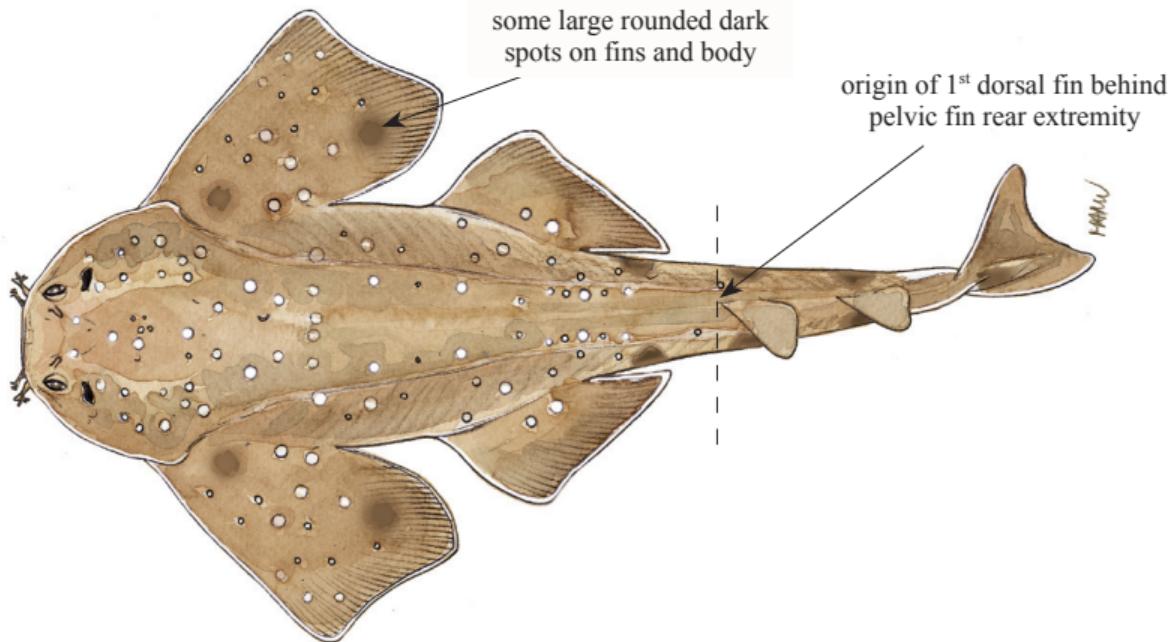
Local names: Drkovna; Kaleb bahr; Kmoot; Küt burunlu köpekbalığı; Peshkagen ; Squale Liche; Zigrino ; Σκυρνοσκυλόψαρο ;

كلب البحر ; كلب بحر

FAO names: En – Smoothback angelshark; Fr – Ange de mer de Bonaparte; Sp – Pez angel.

Size: To 150 cm TL.

Conservation status: IUCN, Critically Endangered.



SQUATINIDAE

Squatina oculata

Habitat and biology: Bottom dweller on sand and mud from depths between 20 and 560 m, more common between 50 and 100 m. Ovoviparous.

Importance to fisheries: Caught by bottom trawls and probably other artisanal fishing gears.

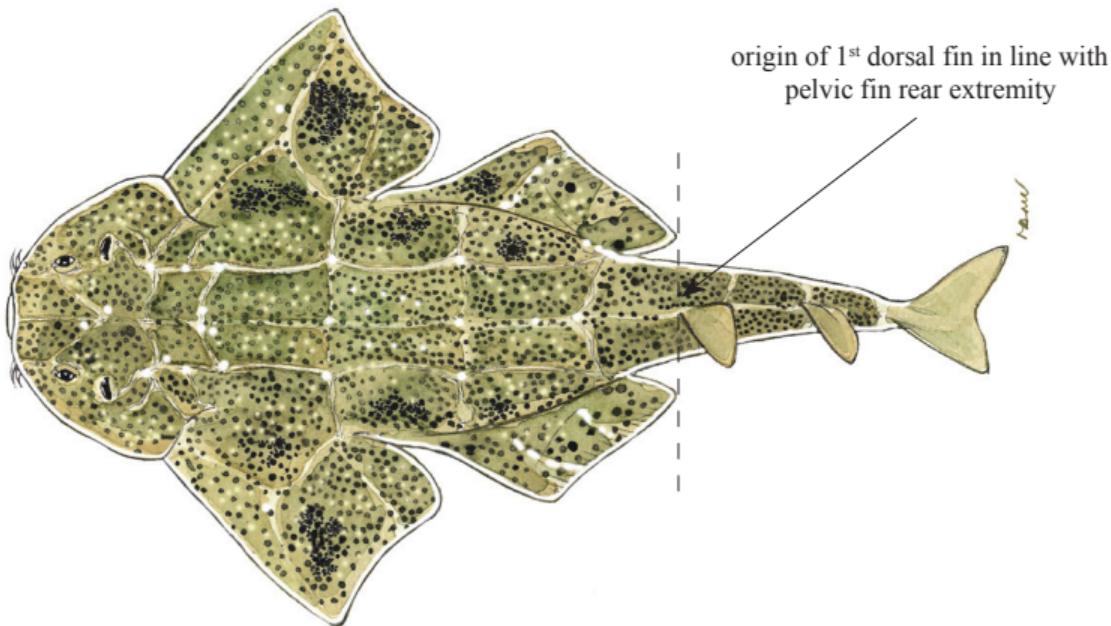
Local names: Hardaoun; Keler baliği; Kersh; Malakh; Pegasti sklat; Skadhine; Sklat žutan; Squadro pelle rossa; Xkatlu tal; Γάτος; Ματορίβα;

السفن; سفن منقط; قرش ملوك البحر; كادي; ملاك البحر

FAO names: En – Angelshark; Fr – Ange de mer commun; Sp – Angelote.

Size: To 250 cm TL.

Conservation status: IUCN, Critically Endangered; Appendix 3 of the Bern Convention.



SQUATINIDAE

Squatina squatina

Habitat and biology: A bottom dweller on sand or mud at moderate depths (5–100 m).

Importance to fisheries: Target species in some part of the Mediterranean, usually caught by gillnet and longlines, probably also caught by bottom trawls.

Local names: Hardaoun; Keler baliği; Malakh; Skadhine; Sklat; sklat sivac; Squadro; Xkatlu komuni; Γάτος; Píva;

السفن; سفن; قرش ملوك البحر; كادي; ملوك البحر

FAO names: En – Bigeye thresher; Fr – Renard à gros yeux; Sp – Zorro ojón.

Size: From about 400 to 460 cm TL.

Conservation status: Status: IUCN, Data Deficient.



ALOPIIDAE

Alopias superciliosus

Habitat and biology: Epipelagic, oceanic and coastal in warm-temperate waters, in depth to 1 000 m. Ovoviparous with litter of 2 to 4 embryos; size at birth probably about 65 to 106 m.

Importance to fisheries: Bycatch of tuna longlines fisheries.

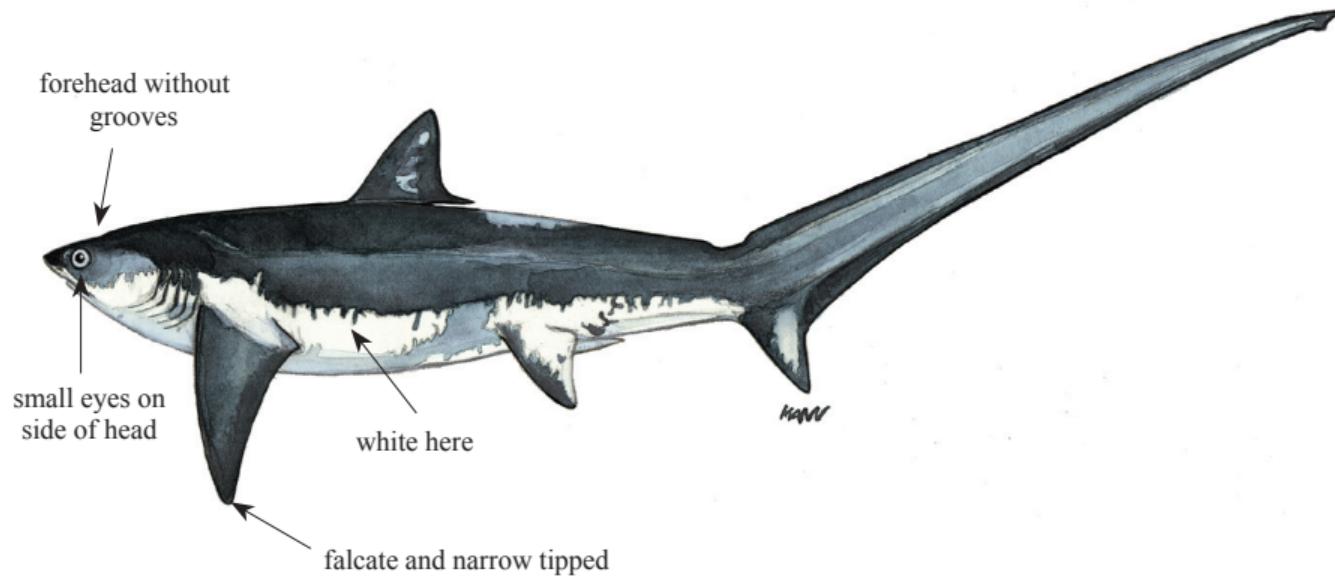
Local names: Krishual gdol; Morska lisica; Pesce volpe occhio grosso; Wawee; Αλουπός;

القرش الثعلب ذو العين الكبيرة; ثعلب; كلب البحر

FAO names: En – Thresher shark; Fr – Renard de mer; Sp – Zorro.

Size: From about 420 to 560 cm, possibly 610 cm TL for females.

Conservation status: IUCN, Vulnerable.



ALOPIIDAE

Alopias vulpinus

Habitat and biology: Epipelagic, oceanic and coastal in cold-temperate waters from the surface to 360 m. Migratory. Ovoviviparous with litters of 2 to 7 embryos; size at birth from 115 to 150 cm TL. Males mature at 350 cm, females at 400 cm. Reproduction in summer.

Importance to fisheries: Bycatch of tuna fisheries caught by recreational fishery.

Local names: Krishual znavtan; Lisica; Pesce volpe; Peshkdhelper; Pixxivolpi; wawee;
Αλεπούσκυλος; Αλουπός;

القرش الثعلب; ثعلب البحر; كلب البحر

FAO names: En – Basking shark; Fr – Pélerin; Sp – Peregrino.

Size: Males up to 900 cm, females to about 980 cm TL.

Conservation status: IUCN, Vulnerable; Appendix 2 of Berne Convention; Appendix 2 of Barcelona Convention; listed in CITES Appendix II.



CETORHINIDAE

Cetorhinus maximus

Habitat and biology: Epipelagic, oceanic, towards the coast mainly in spring and summer. Migratory, probably linked to feeding and reproduction. Feeds on minute crustaceans. Viviparous; apparently about 160 cm at birth; gestation period assumed long (3.5 years).

Importance to fisheries: Bycatch of artisanal fisheries or occasionally in pelagic trawls.

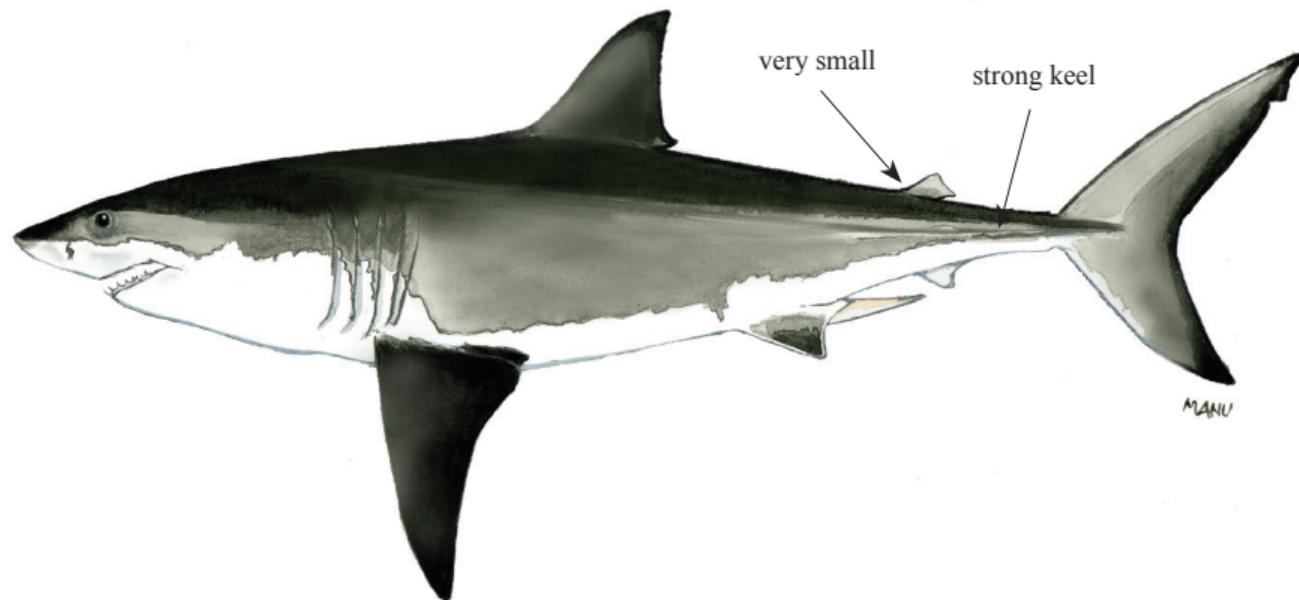
Local names: Βαμβακάρης; Büyük camgöz baliği; Gabdoll; Karish anak; Keresh; Morski pes orjak; Peshkaqen shtegtar; Squalo elefante; Σαπουνάς;

القرش الرحالة; دودة; قرش حاج; كلب البحر

FAO names: En – Great white shark; Fr – Grand requin blanc; Sp – Jaqueton blanco.

Size: To 650 cm, generally from 300 to 600 cm TL.

Conservation status: IUCN, Endangered; Appendix 2 of Berne Convention; Appendix 2 of Barcelona Convention.



LAMNIDAE

Carcharodon carcharias

Habitat and biology: Epipelagic, coastal and offshore, from surfaces to 1 300 m. Viviparous, mature at about 400 cm with 9 or 10 embryos from 60 to 140 cm at birth.

Importance to fisheries: Bycatch in tuna traps. Bottom set trammel nets positioned may catch large-sized individuals. Currently limited to mainly recreational fisheries for the jaws, teeth and fins.

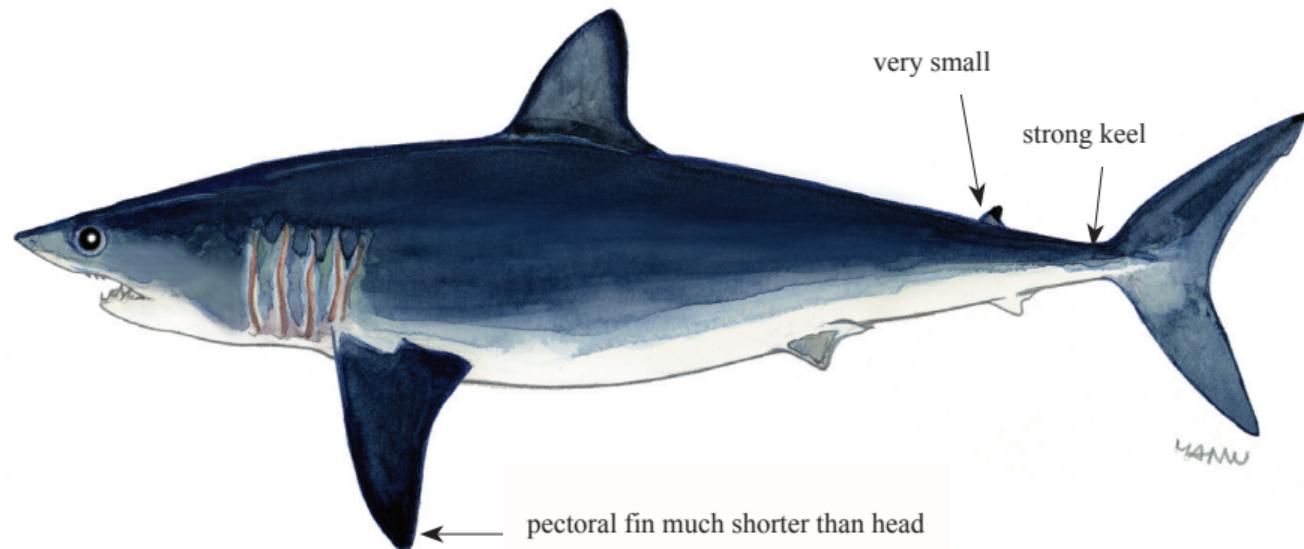
Local Names: Amletz lavan; Beli morski volk; Büyük beyaz camgöz; Kaleb bahr; Kelb il; Peshkaqen njeringrenes; Squalo bianco; Velika bijela psina; Λευκός καρχαρίας; Σμπρίλιος;

القرش الابيض الكبير; قرش أبيض; كلب أبيض; كلب البحر; كلب لبحر

FAO names: En – Shortfin mako; Fr – Taupe bleue; Sp – Marajo dientuso.

Size: To 400 cm, generally from 300 to 370 cm TL.

Conservation status: IUCN, Critically Endangered; Appendix 3 of Berne Convention; Appendix 3 of Barcelona Convention.



LAMNIDAE

Isurus oxyrinchus

Habitat and biology: Pelagic, coastal and oceanic, occurring near the surface down to 400 m. Ovoviparous with 1 to 6 (rarely 10) young; size at birth from 60 to 70 cm. Males mature at 180 to 284 cm, females at 280 to 394 cm.

Importance to fisheries: Caught mainly in tuna longline fisheries and occasionally by the swordfish fishery using longlines and driftnets.

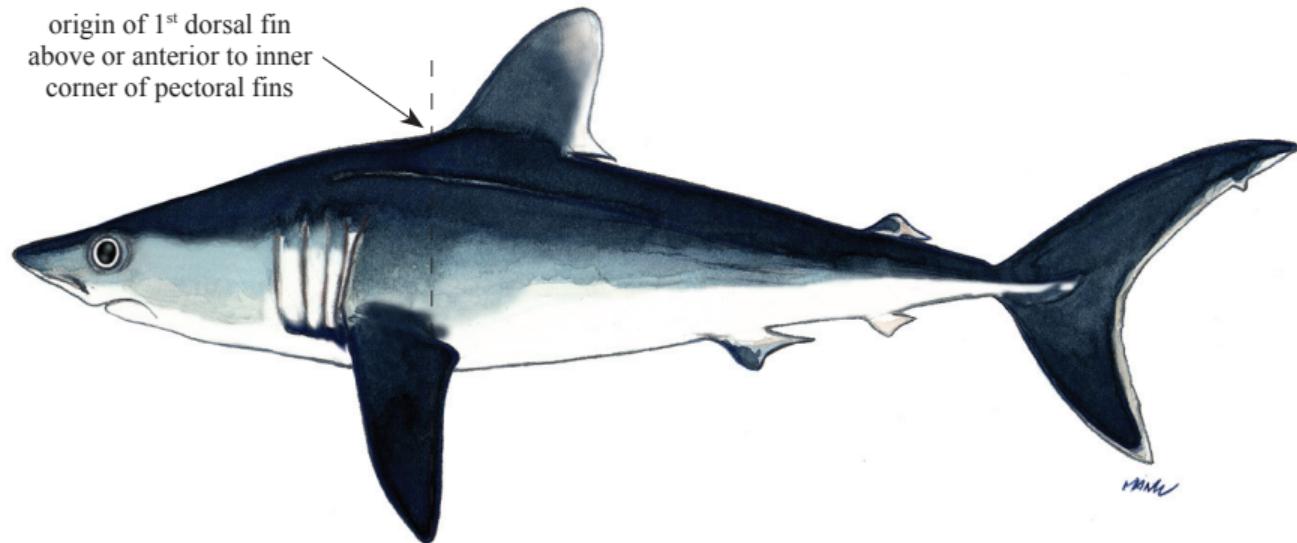
Local names: Amletz kakhol; Atlantski mako; Dikburun canavar balığı; Kaleb bahr; Peshkaqen tonil; Pixxitondu; Psina dugonosa; Squalo mako; Taupe bleu; Λάμια; Τουνόσκυλος;

زرقايا; كلب البحر; كلب لبحر

FAO names: En – Porbeagle; Fr – Requin-taupe commun; Sp – Marajo sardinero.

Size: To over 300 cm, generally from 100 to 260 cm TL.

Conservation status: IUCN, Critically Endangered; Appendix 3 of Berne Convention; Appendix 3 of Barcelona Convention.



LAMNIDAE

Lamna nasus

Habitat and biology: Epipelagic, coastal and oceanic, occurring in deep midwaters at depths of 200 to 700 m (usually 370 m) occasionally also close to the surface. Ovoviviparous with few young (1–5); size at birth from 50 to 75 cm. Females mature at 150 to 220 cm, males 220 to 260 cm.

Importance to fisheries: Heavily fished as bycatch of pelagic fisheries, drifting lines and longlines targeting tuna and swordfish especially in the past in northeastern Atlantic and Mediterranean.

Local names: Amletz khotmani; Atlantska psina; Dikburun baliği; Kaleb bahr; Pixxiplamtu; Smeriglio; Taupe; Tonil; Τουνόσκυλος;

زرقايا; كلب البحر; كلب لبحر

FAO names: En – Blackmouth catshark; Fr – Chien espagnol; Sp – Pintarroja bocanegra.

Size: Up to 52 cm, usually from 20 to 40 cm TL.

Conservation status: IUCN, Least Concern.



height of caudal peduncle higher than 4.5% of TL

SCYLIORHINIDAE

Galeus melastomus

Habitat and biology: Benthic, from upper continental slope at depths of 200 to 1 500 m, mainly at 300 to 400 m. Feeds on bottom-living invertebrates and fishes, also scavenger. Oviparous, spawning all year round with a peak in spring and summer. Males mature at 34 to 42 cm, females at 38 to 45 cm.

Importance to fisheries: Bycatch of deep-sea trawl fisheries.

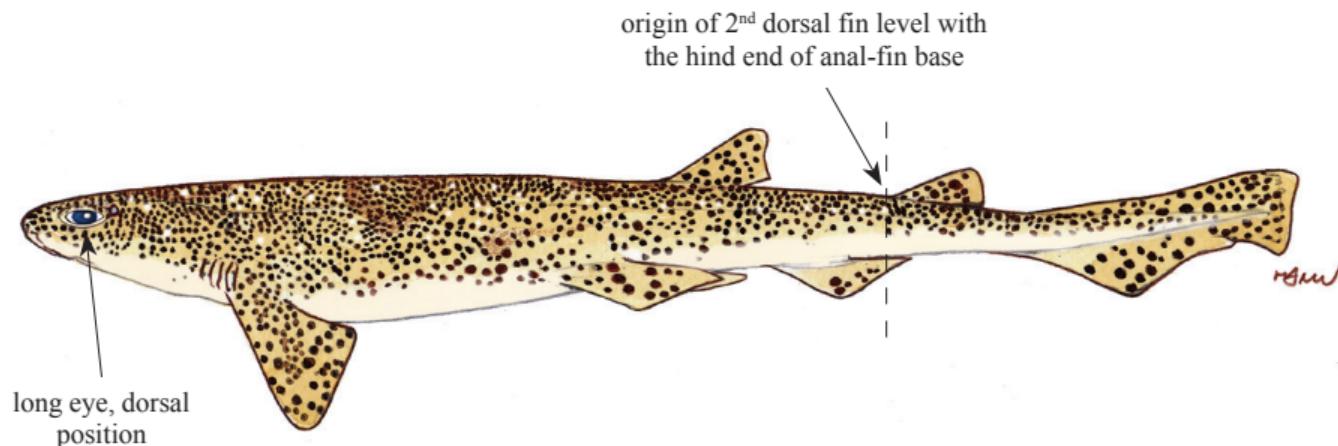
Local names: Boccanera; Gattarell halqu iswed; Gildan shkhor; Kaleb bahr; Kersh; Lekeli kedibaliği; Mačka crnousta; Peshkaqen gojeziu; Μελανόστομος; Στραβόσκυλος;

حرتوكة; قطاط; كلب البحر; كلب البحر الاسباني

FAO names: En – Smallspotted catshark; Fr – Petite roussette; Sp – Pintarroja.

Size: To about 90 cm, generally 20 to 50 cm TL.

Conservation status: IUCN, Least Concern.



SCYLIORHINIDAE

Scyliorhinus canicula

Habitat and biology: Benthic over gravelly, sandy or muddy bottom from shallow water up to 550 m, mainly from 50 to 250 m on the continental shelf. Oviparous with 90 to 115 egg-cases per year. Egg-laying (two egg-cases at time) from autumn to summer at about 200 m of depth (depth considered a nursery area); size at hatching 8 to 10 cm TL, 9 to 11 months incubation. Males mature at 39 cm, females at 34 to 45 cm.

Importance to fisheries: Bottom trawl fishery bycatch, represent an important part of shark landings in Europe.

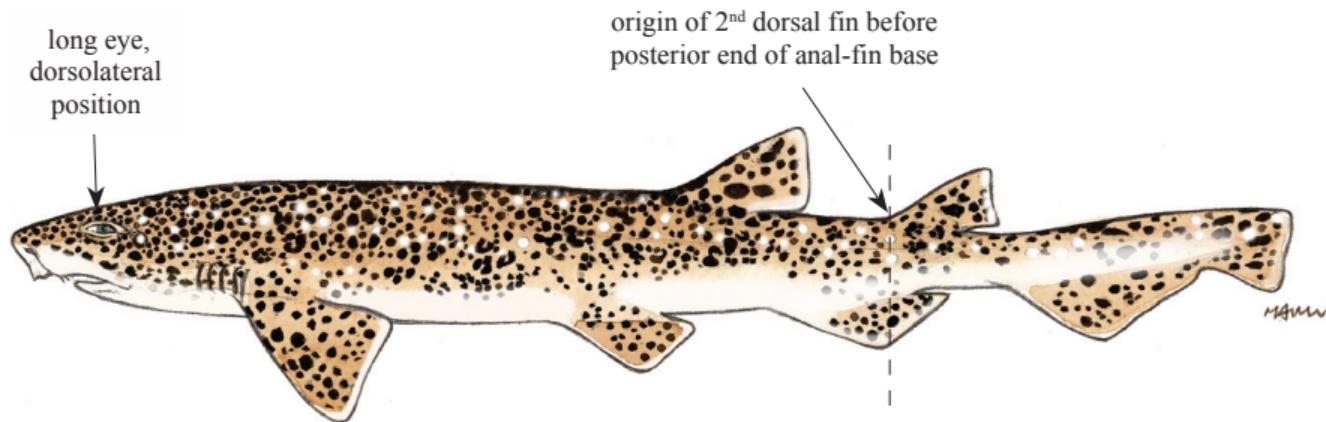
Local names: Gattarel tat; Gattuccio; Gildan kalbi; Kedibaliği; Mačka; Mačka bljedica; Mice; Morska mačka; Saka; Σκυλοψαράκι; Στραβόσκυλος;

حربوكة; قط البحر الصغير; قطاط; قطوس; كلب البحر

FAO names: En – Nursehound; Fr – Grande roussette; Sp – Alitán.

Size: To 162 cm, usually 110 cm TL.

Conservation status: IUCN, Not Evaluated.



SCYLIORHINIDAE

Scyliorhinus stellaris

Habitat and biology: Benthic over rough, rocky or coralline grounds from 20 m to about 100 m. Oviparous egg-laying (two egg-cases at time) all year round, mainly from spring to summer. Embryonic development about 9 months, young hatching at 16 cm. Males mature at 77 cm, females at 79 cm.

Importance to fisheries: Bycatch in bottom trawl and artisanal fisheries.

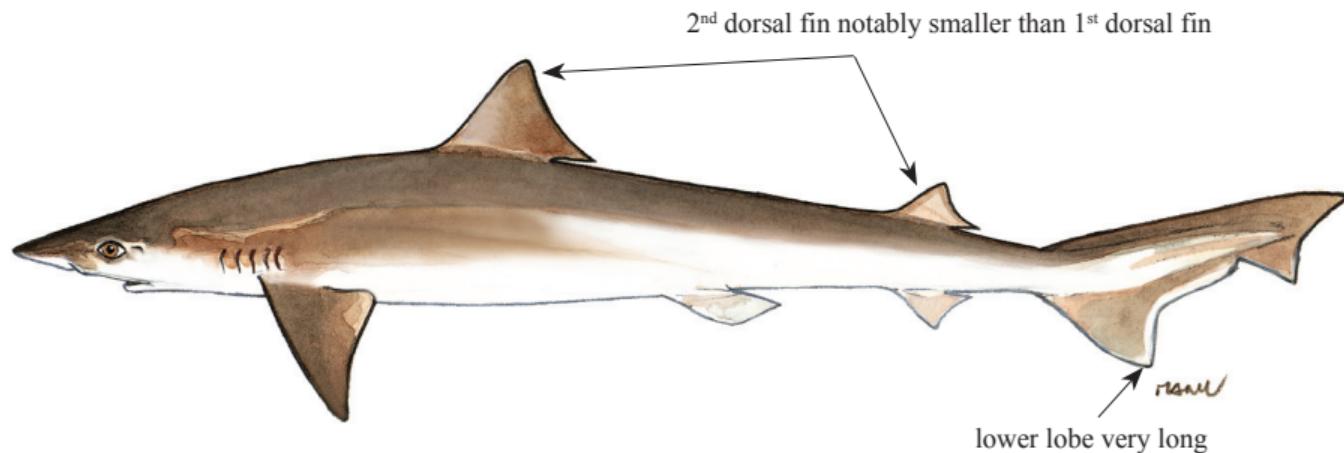
Local names: Dac; Gattarell tar; Gattopardo; Kedibaliği; Mačka bljedica; Mačka mrkulja; Velika morska mačka; Γατοψαράκι; Στραβόσκυλος;

حربوكة; قط البحر الكبير; قطاط; قطوس; كلب البحر

FAO names: En – Tope shark; Fr – Requin Hâ; Sp – Cazón.

Size: To over 200 cm, common from 80 to 120 cm TL.

Conservation status: IUCN, Vulnerable.



TRIAKIDAE

Galeorhinus galeus

Habitat and biology: Coastal to epipelagic, demersal within continental temperate waters from depths of 20 to 470 m. Ovoviparous, usually 25 to 35 young; size at birth 25 to 40 m TL; gestation period about 10 months. Males mature at 120 to 170 cm, females at 130 to 185 m TL.

Importance to fisheries: Traditionally caught by gillnets in the northern Adriatic Sea and as bycatch of trammel nets in the same area.

Local names: Butor; Camgöz balığı; Canesca; Kaleb bahr; Mazzola; Pepelasti morski pes; Peshk qen; Γαλέος; Σκυλογαλέος; كل البحر; كلب البحر; متسولة داكنة

FAO names: En – Starry smooth-hound; Fr – Émissole tachetée; Sp – Musola dentuda.

Size: To 140 cm, common from 50 to 100 cm TL.

Conservation status: IUCN, Vulnerable.



TRIAKIDAE

Mustelus asterias

Habitat and biology: Coastal, benthic on the continental shelf to 300 m, usually at 100 m. Ovoviparous, gestation period about 12 months, 7 to 15 young of about 30 cm TL at birth. Males mature at 75 to 85 cm, females at 85 to 96 cm.

Importance to fisheries: Frequently caught by bottom trawl fisheries in the Alboran Sea.

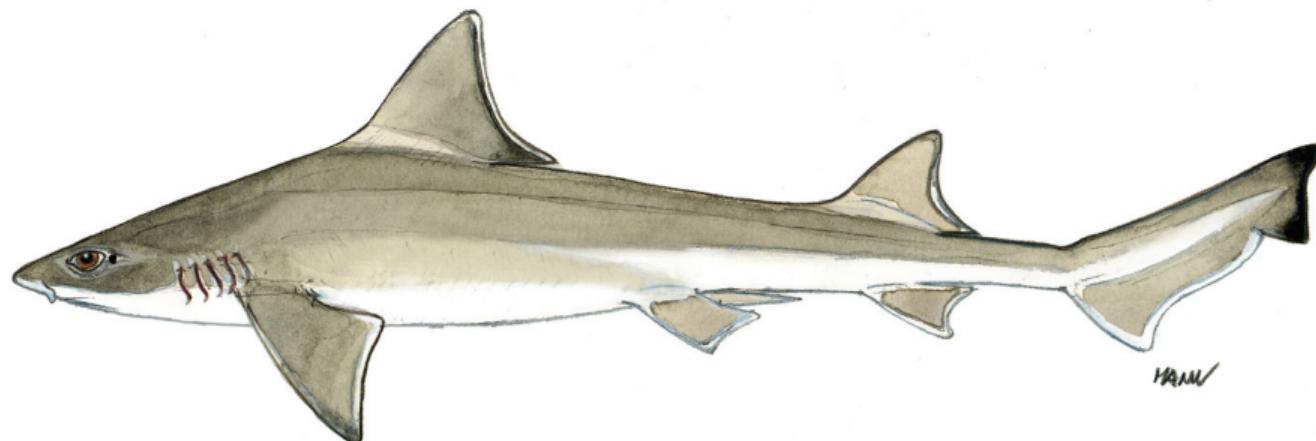
Local names: Kaleb bahr; Köpek baligi; Krishon kokhvani; Mastula; Mazzola tad; Palomb; Palombo stellato; Pas mekuš bjelopjeg; Pegasti morski pes; Αστρογαλέος; Γαλέος;

كلب البحر; كلب البحر المنجم; كلب لبحر; كلب ناعم; متسولة منطقة

FAO names: En – Smooth-hound; Fr – Émissole lisse; Sp – Musola.

Size: To 160 cm, common between 60 and 120 cm TL.

Conservation status: status: IUCN, Vulnerable.



TRIAKIDAE

Mustelus mustelus

Habitat and biology: Coastal demersal species on the continental shelf and upper slope to 450 m, more frequently from 5 to 50 m. Viviparous, 4 to 15 young, born at 35 cm TL. Males mature at 70 to 96 cm, females at 80 cm.

Importance to fisheries: Traditionally caught by gillnets in the northern Adriatic Sea and as bycatch in bottom trawl fisheries.

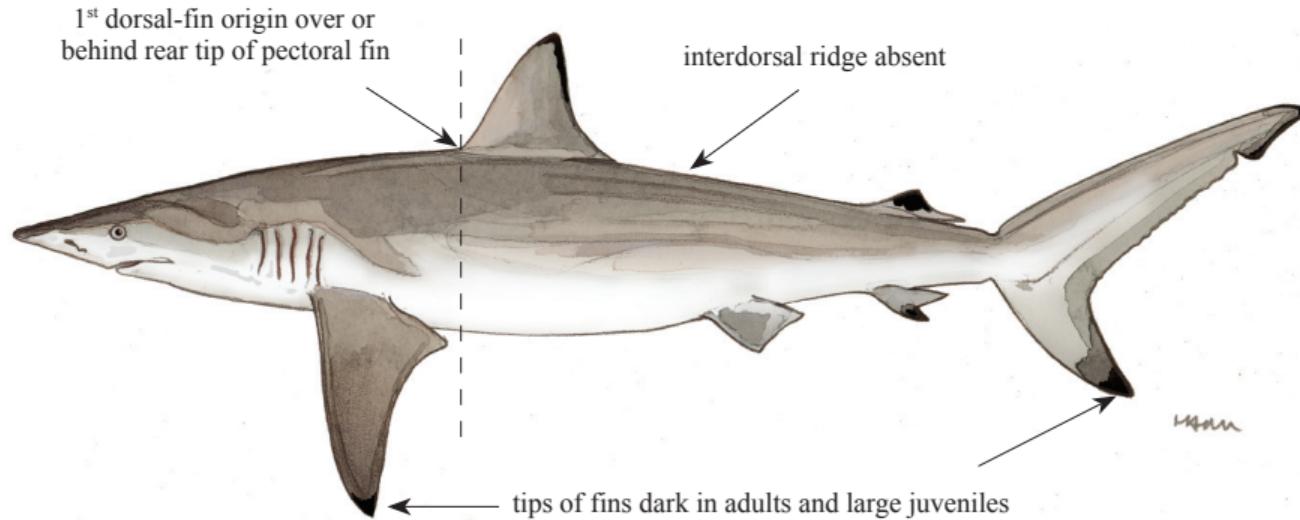
Local names: Adi köpekbalığı; Kaleb bahr; Krishon muvhak; Mastula; Mazzola; Navadni morski pes; Palomb; Palombo; Pas mekuš crnopjeg; Γαλέος; Γκριζογαλέος;

قطاط أو كلب البحر; كلب البحر; كلب ناعم; متسولة

FAO names: En – Spinner shark; Fr – Requin tisserand; Sp – Tiburón aleta negra.

Size: To 278 cm, common to 220 cm TL.

Conservation status: IUCN, Data Deficient.



CARCHARHINIDAE

Carcharhinus brevipinna

Habitat and biology: Pelagic in coastal and open waters from surface to 100 m. Viviparous, 1 litter of 6 to 20 young every two years; size at birth 60 to 75 cm TL. Males mature at 160 to 200 cm, females at 130 to 200 cm. Parturition occurs in coastal waters.

Importance to fisheries: Bycatch of deep sea longlines and pelagic longline fishery in eastern Algerian and Tunisian coasts. Also targeted by recreational fishery.

Local names: Kaleb bahr; Karish ktzar; Requin tisseran; Squalo pinnacorta; Καρχαρίος
κοντόφτερος;

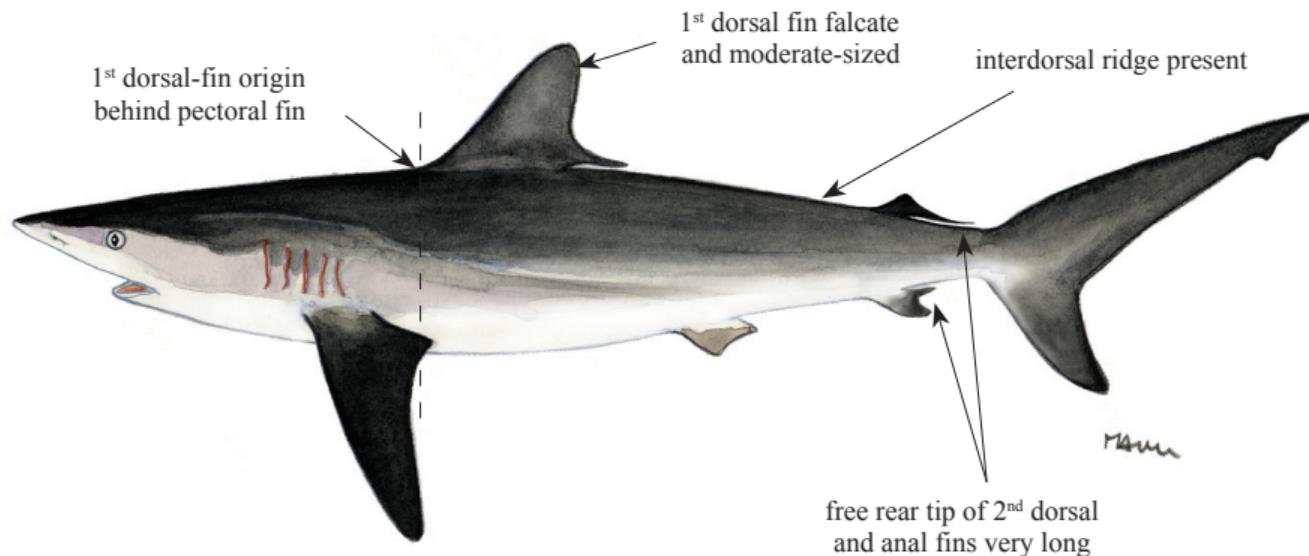
كلب البحر; كلب بوريشة

Carcharhinus falciformis (Bibron, in Müller and Henle, 1839) CARCHARHINIDAE

FAO names: En – Silky shark; Fr – Requin soyeux; Sp – Tiburón jaquetón.

Size: To 330 cm TL

Conservation status: IUCN, Least Concern.



CARCHARHINIDAE

Carcharhinus falciformis

Habitat and biology: Coastal and oceanic, common near shelves and slopes from the surface to 500 m. Viviparous with 2 to 14 young, gestation period, possibly 12 to 16 months, size at birth 70 to 87 cm. Males mature at 187 to 217 cm, females at 213 to 230 cm.

Importance to fisheries: Bycatch of deep-sea longlines and by pelagic longline fishery in the eastern Algerian coasts.

Remarks: Atlantic immigrant species.

Local names: Karish khalak; Requin soyeux;

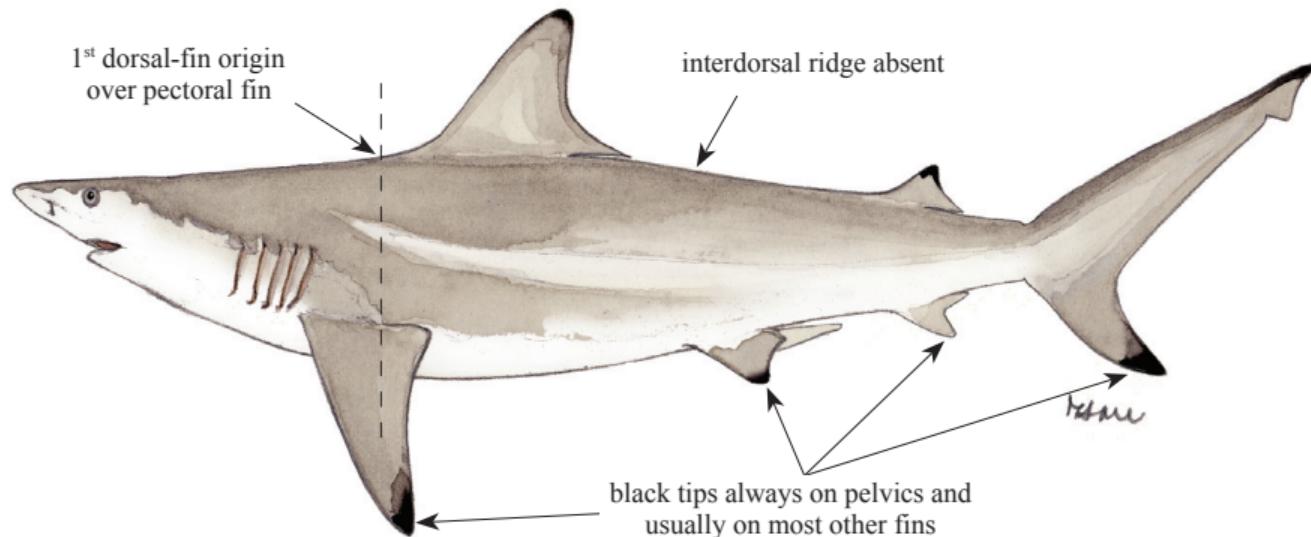
كلب البحر; كلب بحر

Carcharhinus limbatus (Valenciennes, in Müller and Henle, 1839) **CARCHARHINIDAE**

FAO names: En – Blacktip shark; Fr – Requin bordé; Sp – Tiburón macuira.

Size: To 255 cm, common to 150 cm TL.

Conservation status: IUCN, Data Deficient.



CARCHARHINIDAE

Carcharhinus limbatus

Habitat and biology: Pelagic, coastal and offshore but not a truly oceanic species. From the surface to 100 m depth. Viviparous, 1 litter every two years with 10 to 14 young born at 38 to 72 cm TL. Gestation period 10 to 12 months; nursery area usually in coastal lagoons. Males mature at 135 to 180 cm, females at 120 to 190 cm.

Importance to fisheries: Caught with surface longlines and gillnets.

Local names: Karish shkhor; Köpek balığı; Requin; Squalo orlato; Καρχαρίας;

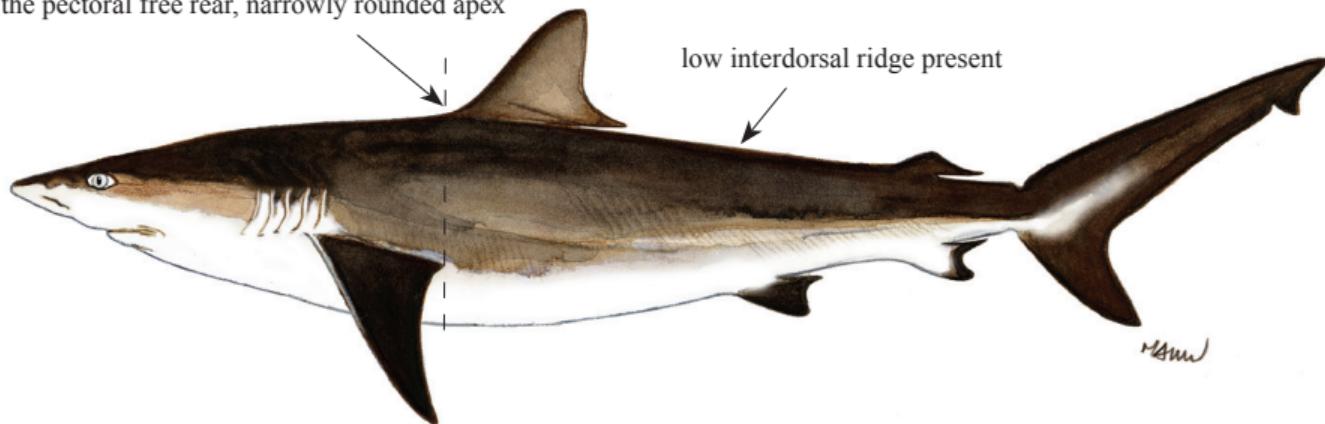
كلب البحر; كلب بوريشة

FAO names: En – Dusky shark; Fr – Requin sombre; Sp – Tiburón arenero.

Size: To 400 cm TL.

Conservation status: IUCN, Data Deficient.

1st dorsal-fin origin over or slightly anterior to
the pectoral free rear, narrowly rounded apex



CARCHARHINIDAE

Carcharhinus obscurus

Habitat and biology: Epipelagic in coastal and open oceanic waters, demersal in coastal waters down to 400 m. Viviparous with 6 to 14 embryos, born at 69 to 100 cm TL. Gestation period may be 16 months. Females mature at 257 to 300 cm TL, males at 280 cm.

Importance to fisheries: Bycatch of deep-sea longlines. Caught by pelagic longline fishery in eastern Algerian coasts.

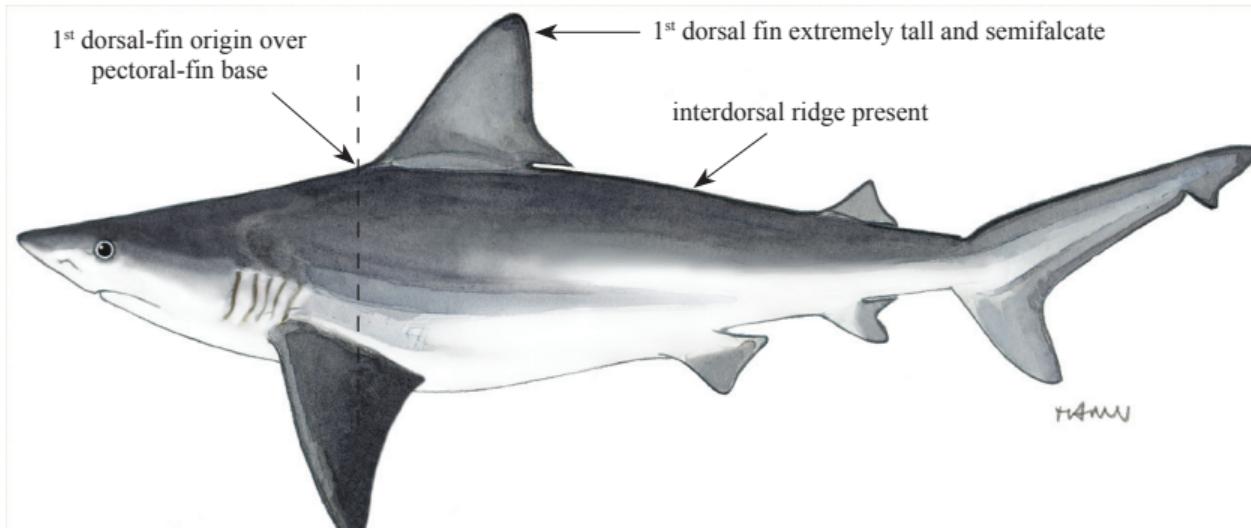
Local names: Kaleb bahr; Karish afroori; Köpek balığı;

القرش الاسود; كلب البحر; كلب بحر

FAO names: En – Sandbar shark; Fr – Requin gris; Sp – Tiburón trozo.

Size: To 300 cm, common to 240 cm TL.

Conservation status: IUCN, Endangered.



CARCHARHINIDAE

Carcharhinus plumbeus

Habitat and biology: Coastal-pelagic, on continental and insular shelves and in deep water adjacent to them up to 280 m. Viviparous, one litter every 2 to 3 years, with 6 to 18 young born at 50 to 75 cm TL. Gestation period 11 to 12 months and parturition occurs in coastal waters. Females mature at 144 to 182 cm, males at 130 to 178 cm TL.

Importance to fisheries: Sometimes juveniles of this species are caught as bycatch of trammel nets in the Adriatic Sea. Caught by pelagic longline fisheries in the eastern Algerian coast and in other parts of the Mediterranean.

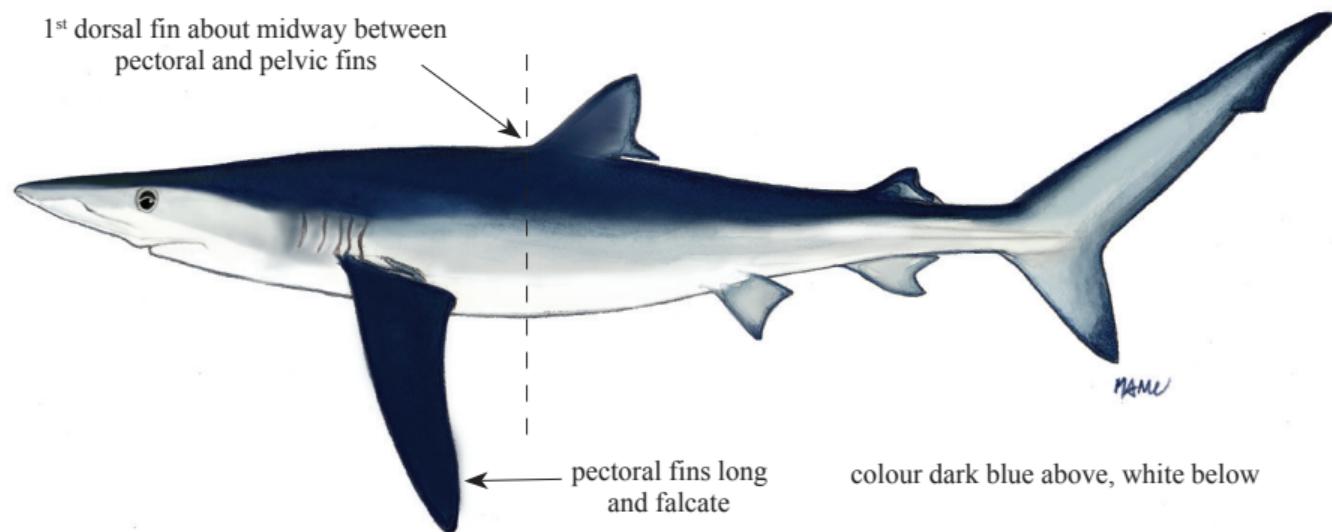
Local names: Büyükcamgöz balığı; Kaleb bahr; Karish snapirtan; Kelb gris; Pas tupan; Peshkaqen i hirte; Sivi morski pes; Squalo grigio; Καρχαρίος τεφρός;

القرش الرمادي ; كلب البحر ; كلب بودريوة

FAO names: En – Blue shark; Fr – Peau bleue; Sp – Tiburón azul.

Size: To at least about 400 cm TL.

Conservation status: status: IUCN, Vulnerable; Appendix 3 of the Berne Convention; Appendix 3 of the Barcelona Convention (ASPIIM protocol, Asp. 3).



CARCHARHINIDAE

Prionace glauca

Habitat and biology: Open oceanic waters outside continental shelf but occurring also in coastal waters, often swimming near the surface down to 150 m. Viviparous, litters up to 135 young, born at 35 to 45 cm TL. Gestation period from 9 to 12 months. Females mature at 173 to 221 cm, males at 182 to 281 cm TL.

Importance to fisheries: Along Calabria and Apulia (Italian southern regions) a special artisanal fishery targeting *P. glauca* takes place using drifting surface longlines known as “stese” in spring. Bycatch of tuna and swordfish longline and small drifnet fishery, especially in Italy, Malta, Morocco, Tunisia and Crete. Target species of recreational fishing, in the past one of the main elasmobranch species caught in tuna traps.

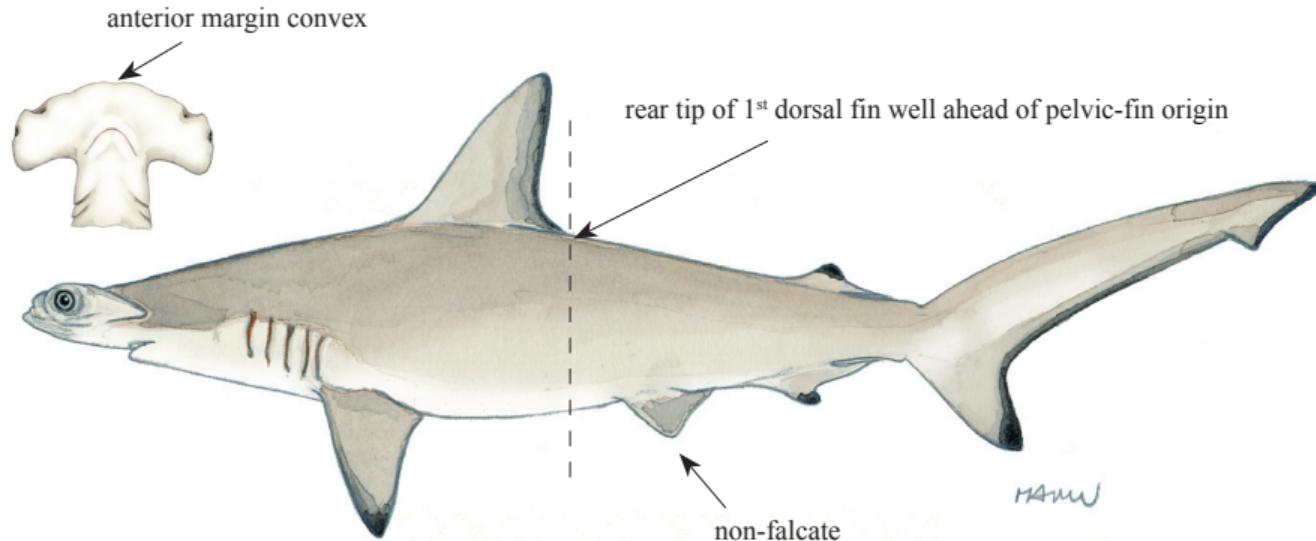
Local names: Huta kahla; Kaleb azrak; Karish kakhol; Modrulj; Pamuk baliği; Peshkaqen jeshil; Sinji morski pes; Verdesca; Γλαυκοκαρχαρίας; Μπλε καρχαρίας;

القرش الأزرق; قرش أزرق; كلب البحر

FAO names: En – Scalloped hammerhead; Fr – Requin-marteau halicorne; Sp – Cornuda común.

Size: To about 420 cm, usually 360 cm TL.

Conservation status: IUCN, Near Threatened.



SPHYRNIDAE

Sphyrna lewini

Habitat and biology: From inshore to offshore, coastal, epipelagic and semi-oceanic in warm areas over continental shelves from the surface (10–25 m) to about 250 m. Juveniles common in estuaries and shallow bays. Viviparous, with 15 to 31 young per litter.

Importance to fisheries: Bycatch of pelagic longline and purse-seine fisheries, also caught with gillnets by artisanal fisheries.

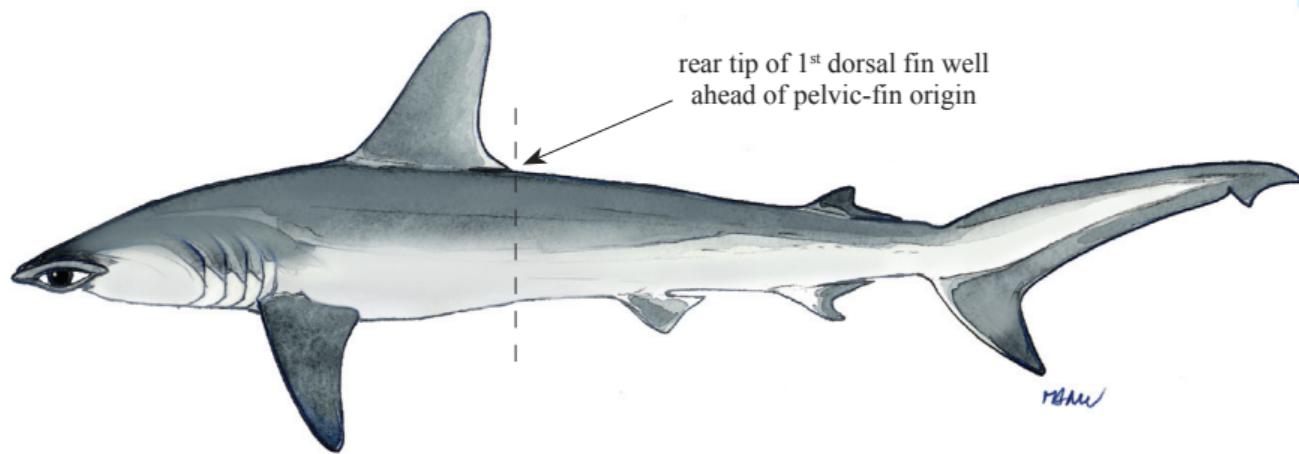
Local names: Çekiç balığı; Patishan kad; Squalo martello smerlato;

القرش المطرقة; عينة في قرنة; كرنودا

FAO names: En – Smooth hammerhead; Fr – Requin-marteau commun; Sp – Cornuda cruz.

Size: To 400 cm.

Conservation status: IUCN, Near Threatened.



SPHYRNIDAE

Sphyrna zygaena

Habitat and biology: Coastal-pelagic, mainly on continental shelf from coast to 20 m. Viviparous, up to 37 embryos, born at 50 to 60 cm TL. Female mature at 300 cm, males at 210 to 240 cm TL.

Importance to fisheries: Bycatch of pelagic fisheries.

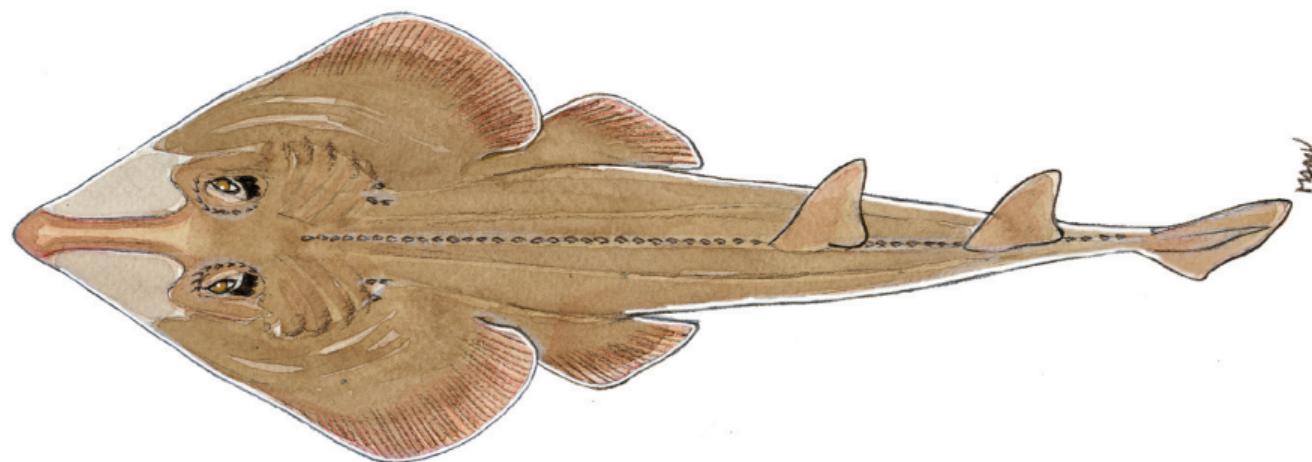
Local names: Çekiç baliği; Iskandar; kladvenica; Kurazza; Mlat; Patishan tmim; Pesce martello; Peshkkarabiner; Zúγαινα; Zúγαινα;

القرش المطرقة; أبو مطرقة; عينة في قرنة; كرنودا; كلب البحر

FAO names: En – Common guitarfish; Fr – Guitare de mer commune; Sp – Guitarra común.

Size: To about 100 cm TL.

Conservation status: IUCN, Endangered.



RHINOBATIDAE

Rhinobatos rhinobatos

Habitat and biology: Benthic on sandy and muddy bottom and seabeds, from shallow water to about 100 m. Ovoviparous, one or two litters per year, of 4 to 10 embryos.

Importance to fisheries: In some areas of the Mediterranean basin usually caught by gillnet, bottom set and drifting longlines. Bycatch in bottom trawl fisheries.

Local names: Gitaran moovhak; Kemane baliği; Marr; Mehrat; Pesce chitarra; Peshk kitarë; Ražopas; Vjolin; Βιόλα; Ρινόβατος;

القطار; شلّف; كيتارا; محراث

FAO names: En – Marbled electric ray; Fr – Torpille marbrée; Sp – Tremolina mármol.

Size: To about 100 cm TL.

Conservation status: IUCN, Least Concern.



TORPEDINIDAE

Torpedo marmorata

Habitat and biology: Benthic on soft as well as rocky bottoms, between 10 and 100 m of depth. Ovoviparous. Gestation of about ten months, 2 to 13 embryos, their number depending on size of female. Females mature at about 40 cm, males at 29 cm TL.

Importance to fisheries: Bycatch of bottom trawls demersal fisheries.

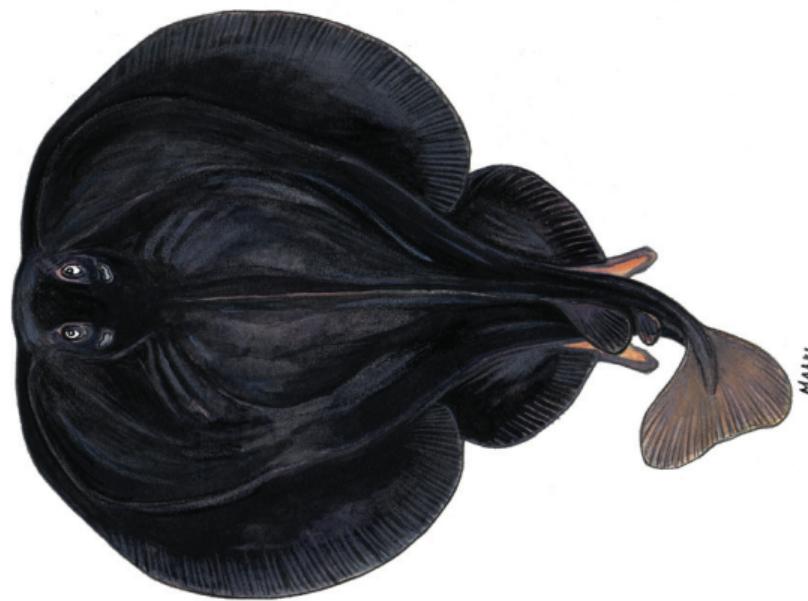
Local names: Električni skat; Elektrik baliği; Haddiela sewda; Kahraba; Khashmalan segol; Peshk elektrik i mermerte; Torpedine marezzata; Μαρμαρομουδιάστρα; Μουδιάστρα;

الراية الرخامية الرعادة; ترسينتي; بَعَادْ; نعاسة; وزوازة فاخة

FAO names: En – Electric ray; Fr – Torpille noire; Sp – Tremolina negra.

Size: To about 180 cm TL.

Conservation status: IUCN, Data deficient.



TORPEDINIDAE

Torpedo nobiliana

Habitat and biology: Juveniles benthic on soft bottoms, adults frequently pelagic or semipelagic, from 10 to 150 m, reported migrating over large distances. Ovoviparous.

Importance to fisheries: Bycatch in bottom trawl in coastal grounds.

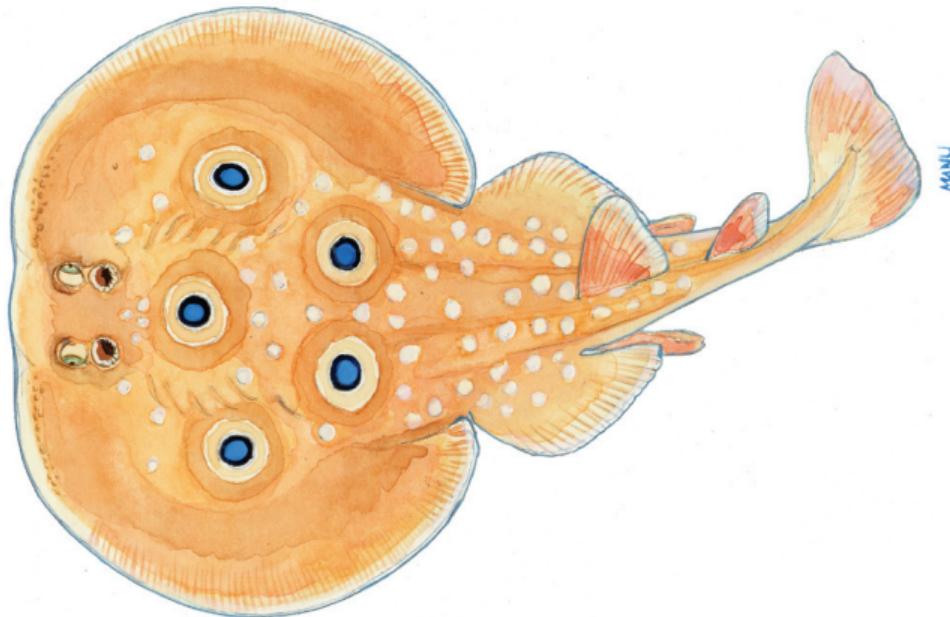
Local names: Elektrik baliği; Haddiela komuni; Khashmalan mshooyash; Piskë; Torpedine nera; Trnjevac; Μαυρομουδιάστρα; Μουδιάστρα;

الراية السوداء الرعادة; ترسينتي; رَعَاد; نعasse; وزوازة سود

FAO names: En – Common torpedo; Fr – Torpille ocellée; Sp – Tremolina.

Size: From 30 to 40 cm, to about 60 cm TL.

Conservation status: IUCN; Least Concern.



TORPEDINIDAE

Torpedo torpedo

Habitat and biology: Benthic on soft bottoms, usually inshore up to 70 m, occasionally deeper. Ovoviviparous, gestation period from March to October; 3 to 21 young of 8 to 10 cm TL at birth, depending on female size.

Importance to fisheries: Bycatch in bottom trawl coastal fisheries.

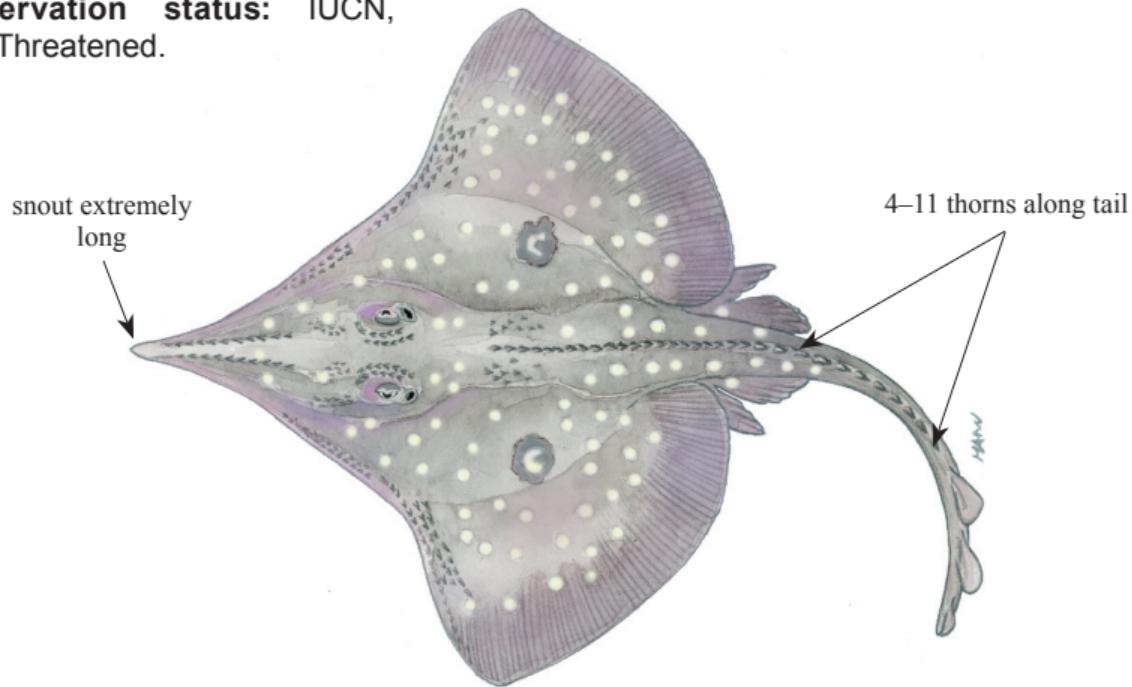
Local names: Drhtulja; Elektrik baliği; Haddiela tal; Kahraba; Khashmalan eynooni; Pegasti električni skat; Peshk elektrik; Torbeed; Torpedine occhiuta; Ματομουδιάστρα; Μουδιάστρα;

الراية الخلاقية الرعادة; ترسينتي; رعَاد; نعاسة; وزوازة منقطة

FAO names: En – Longnose skate; Fr – Pocheteau noir; Sp – Raya picuda.

Size: To 150 cm TL, common from 60 to 100 cm.

Conservation status: IUCN,
Near Threatened.



RAJIDAE

Dipturus oxyrinchus

Habitat and biology: Benthic on sandy bottom from 90 to 900 m, common around 200 m. Oviparous, egg-cases from 100 to 150 mm in length, laid from February to May.

Importance to fisheries: Landed by trawlers and longliners.

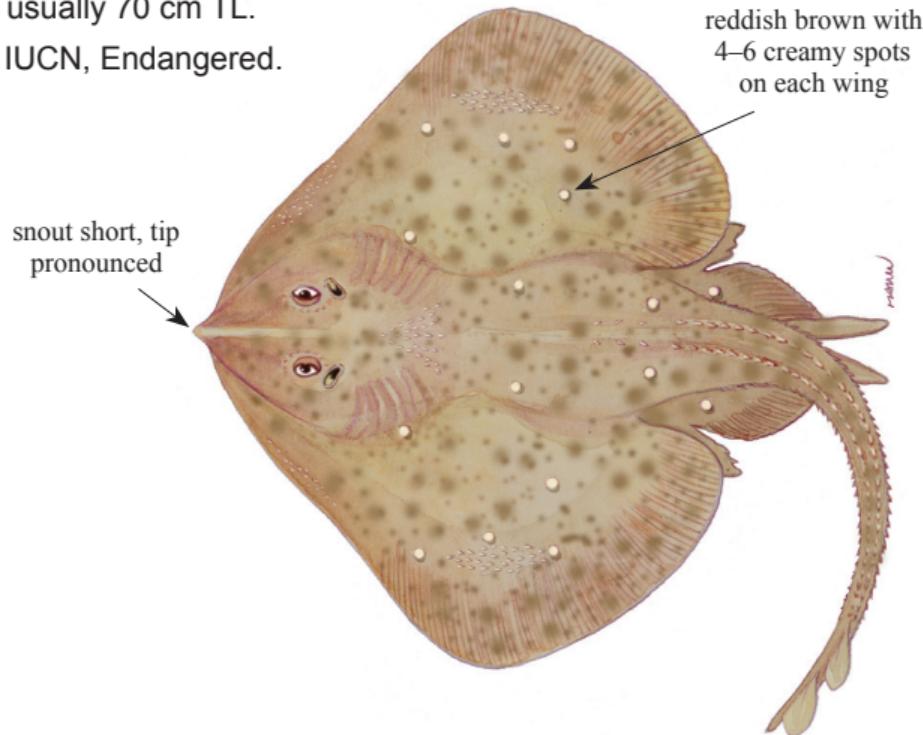
Local names: Bakra; Raje turigjate; Raya; Raža; Razza monaca; Rebekkin geddumu twil; Šilonosa raža; Trisanit khotmanit; Volina klinka; Καλκάνι; Nóva;

الراية الراهبة; بقرة; رايا; رية; مسحة بومنقار

FAO names: En – Sandy ray; Fr – Raie circulaire; Sp – Raya falsa vela.

Size: To about 120 cm, usually 70 cm TL.

Conservation status: IUCN, Endangered.



RAJIDAE

Leucoraja circularis

Habitat and biology: Benthic in offshore shelf waters and on upper slope from 70 to 275 m, common around 100 m. Oviparous, egg-cases of about 90 by 50 mm laid from November to August.

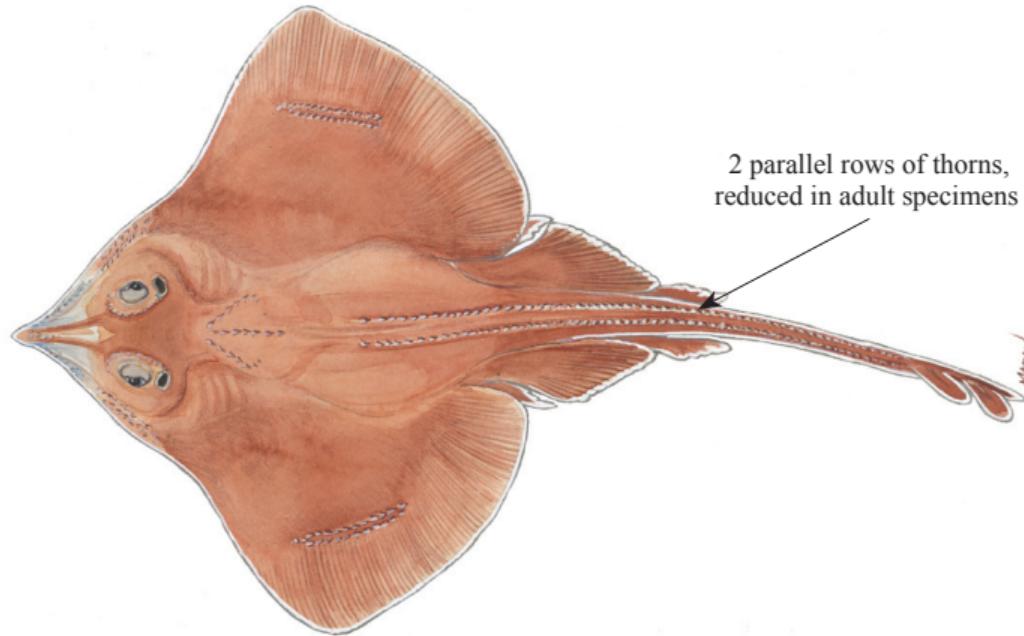
Importance to fisheries: Species of local fishery importance, caught by bottom trawl fisheries.

Local names: Kum vatozu; Raje e rrumbullaket; Raža smeda; Razza rotonda; Páča;
Στρογγυλόβατος; الراية المدوره; رابا; ربة; مسحة

FAO names: En – Shagreen ray; Fr – Raie chardon; Sp – Raya cardadora.

Size: To about 100 cm TL.

Conservation status: IUCN, Data deficient.



RAJIDAE

Leucoraja fullonica

Habitat and biology: Benthic in relatively cold coastal waters and on upper parts of continental slopes from 30 to 550 m. Oviparous, size of egg-cases about 80 by 50 mm.

Importance to fisheries: Caught by bottom trawl fisheries and landed by longlines in the northern Mediterranean.

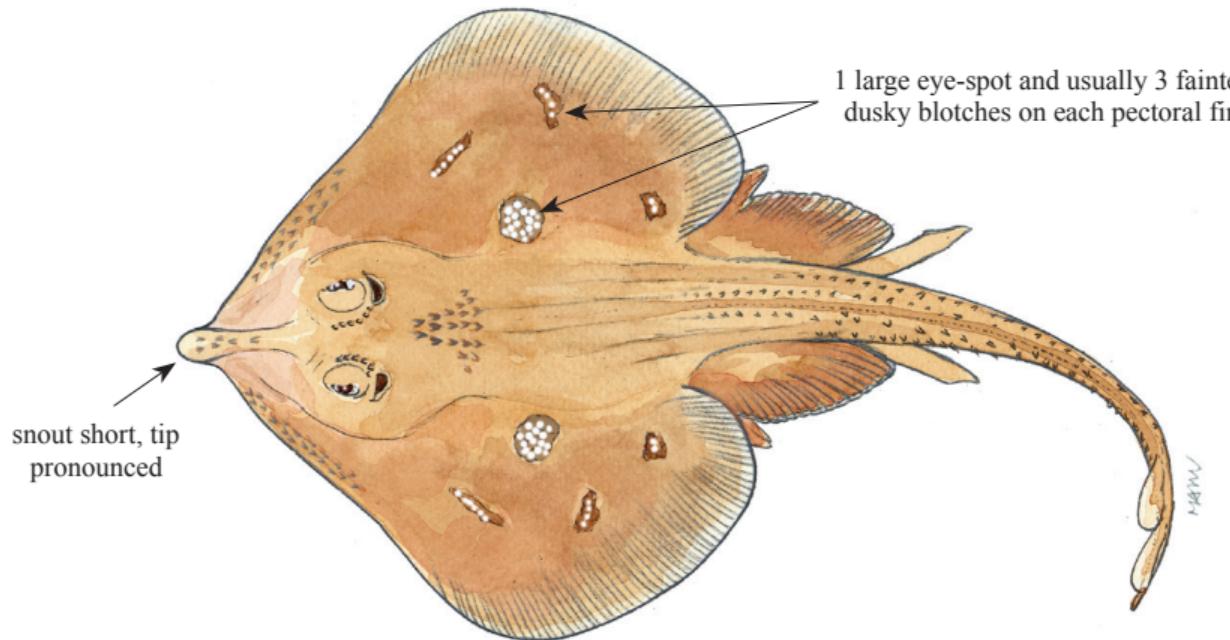
Local names: Raja petruza; Raxhë; Raya cardadora; Vatoz baliği; Ακανθόβατος; Páča;

الراية المفحمة; رايا; رية; مسحة

FAO names: En – Maltese ray; Fr – Raie de Malte; Sp – Raya de Malta.

Size: To about 50 cm TL.

Conservation status: IUCN, Critically Endangered.



RAJIDAE

Leucoraja melitensis

Habitat and biology: Benthic from 60 to 600 m. Oviparous, reproduction activity throughout the year, ripe females observed mainly in spring and autumn; egg-cases unknown.

Importance to fisheries: Bycatch of local trawl fishery.

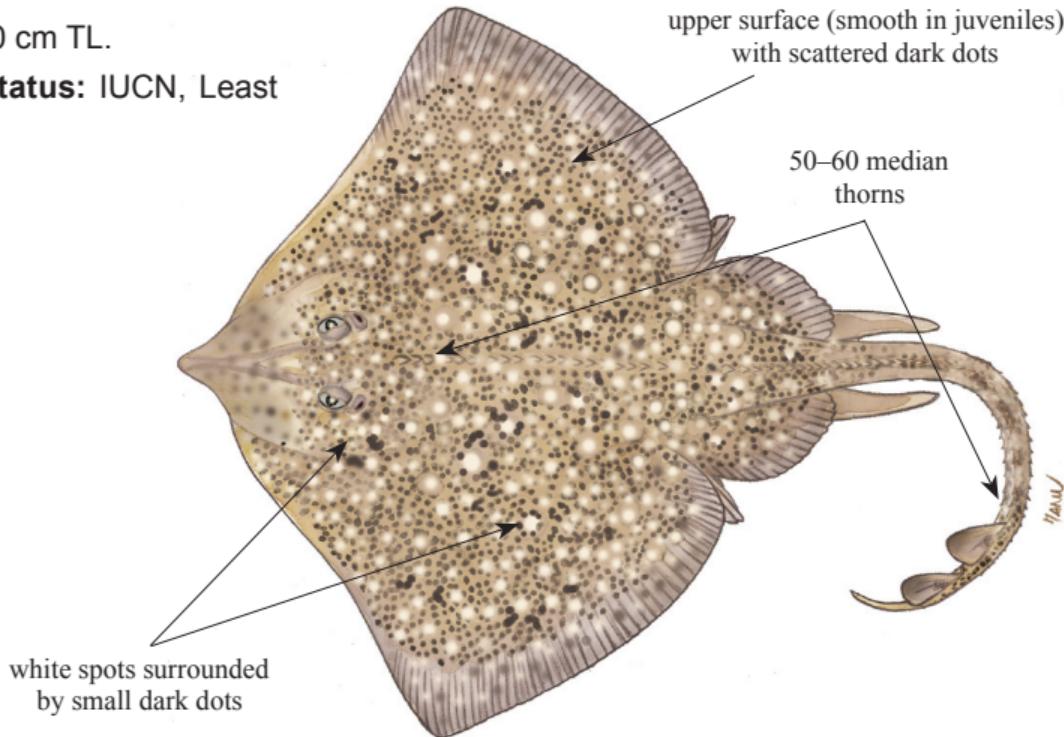
Remarks: Endemic species in the Mediterranean. Mainly along Tunisian coasts, quite rare around Malta.

Local names: Raja ta' Malta; Razza maltese; Páča; الرأة المالطية; رايا؛ مسحة

FAO names: En – Starry ray; Fr – Raie étoilée;
Sp – Raya estrellada.

Size: To about 80 cm TL.

Conservation status: IUCN, Least Concern.



RAJIDAE

Raja asterias

Habitat and biology: Benthic in inshore waters on sandy bottom from 2 to 200 m, more common between 20 and 50 m. Oviparous with about 30 to 112 egg-cases per year (depending on size of females) from 30 to 45 mm in length. Egg-cases laid mainly in summer and autumn at depth of 30 to 40 m; embryos development in 5 to 6 months. Young specimens of about 8 to 9 cm found in very shallow waters mainly in winter. Females mature at about 56 cm, males at 52 cm TL.

Importance to fisheries: Regularly caught as bycatch in bottom trawl fisheries. Secondary target species by beam trawls. Juvenile specimens are frequently caught by trammel net in very shallow waters (2–15 m) and discarded still alive.

Remarks: It can be considered an endemic species in the Mediterranean Sea.

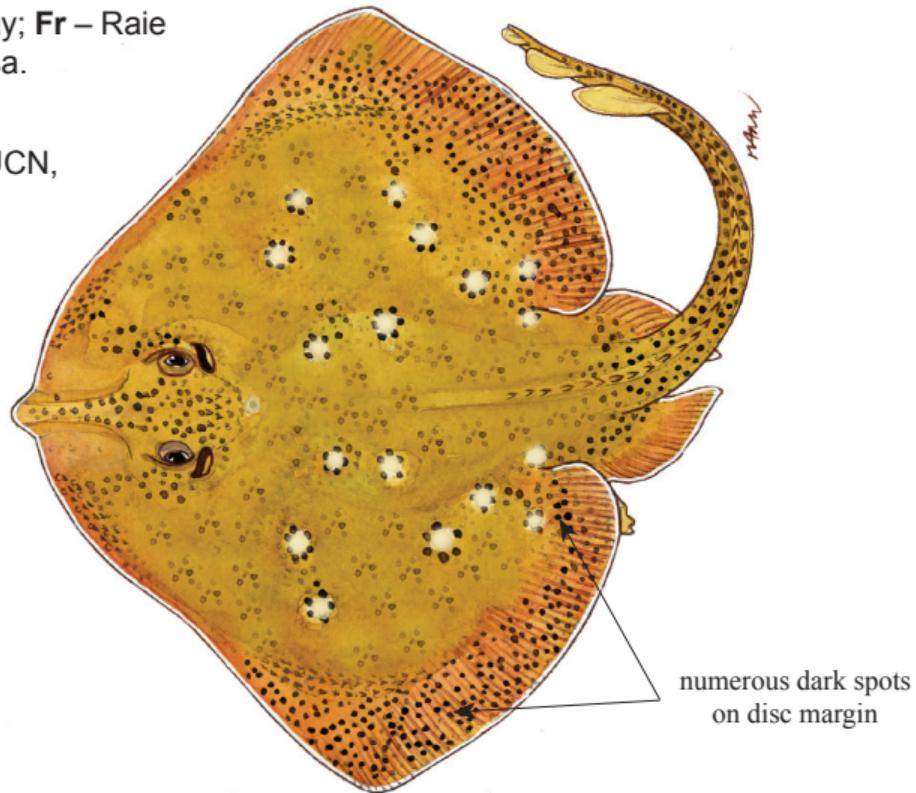
Local names: Ferrez; İğneli vatoz baliği; Raja tat; Raža; Raža zvjezdopjega; Razza stellata; Trisanit kokhvanit; Zvezdasta raža; Αστρόβατος; Páča;

الراية النجمية; راية; مسحة حرشة

FAO names: En – Blonde ray; Fr – Raie lisse; Sp – Raya boca de rosa.

Size: To about 120 cm TL.

Conservation status: IUCN, Data Deficient.



RAJIDAE

Raja brachyura

Habitat and biology: Benthic in inshore waters mainly on sandy bottoms to about 100 m. Oviparous, about 30 egg-cases (80 to 120 cm length) per year laid from February to August. Embryonic development about 7 months.

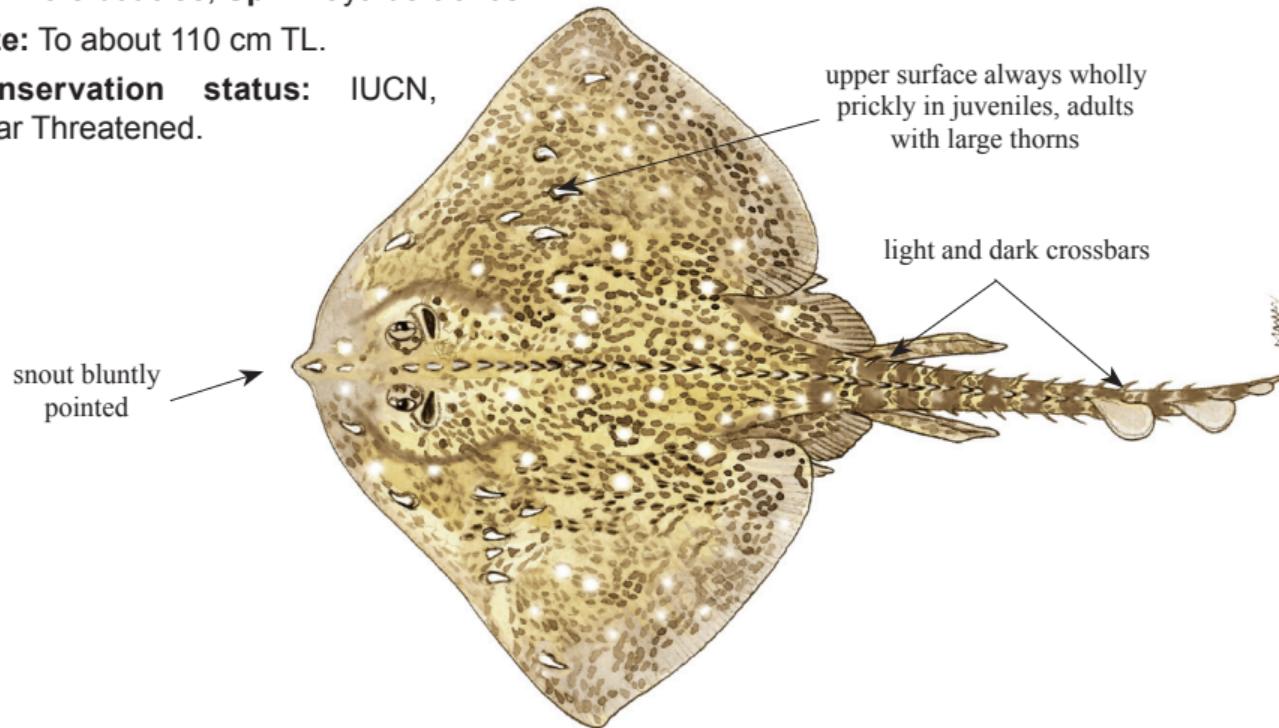
Importance to fisheries: Bycatch in bottom trawls and artisanal demersal fisheries in coastal grounds.

Local names: Razza a coda corta.

FAO names: En – Thornback ray;
Fr – Raie bouclée; Sp – Raya de clavos.

Size: To about 110 cm TL.

Conservation status: IUCN,
Near Threatened.



RAJIDAE

Raja clavata

Habitat and biology: Benthic from shallow water to the bathyal zone (20–700 m). Oviparous, 140 to 170 egg-cases (60–90 mm length) per year laid mainly in winter and spring. Embryonic development about 5 months, young hatching at 10 to 11 cm TL. Females mature at 85 cm, males at 75 cm TL.

Importance to fisheries: Locally commercially important in the Mediterranean; bycatch of demersal fishery.

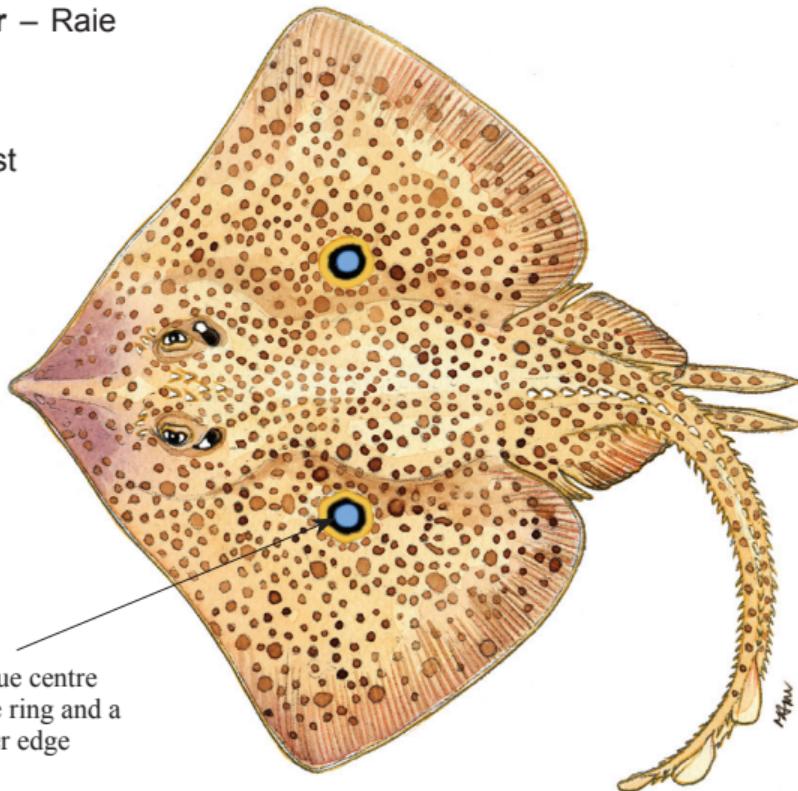
Local names: Bakra; Dikenli vatoz baliği; Raja guresh; Raja tal; Raya; Raža; Raža kamenica; raža trnjevka; Razza chiodata; Trisanit kotzanit; Καλκανόβατος; Páča;

الراية المشبوبة; ثعلب البحر; رايا; رية; مسحة حرشة

FAO names: En – Brown ray; Fr – Raie miroir; Sp – Raya de espejos.

Size: To about 60 cm TL.

Conservation status: IUCN, Least Concern.



eye-spot with light blue centre
encircled by a dark blue ring and a
yellow-orange outer edge

RAJIDAE

Raja miraletus

Habitat and biology: Benthic from shallow water to 450 m mainly from 50 to 150 m on sandy and hard bottoms. Oviparous, egg-cases (45 to 52 mm length) laid from spring to summer. Embryonic development about 5 months, young hatching at 10 to 11 cm TL. Females mature at 24 cm, males at 22 cm disc width.

Importance to fisheries: Commonly caught as bycatch by bottom trawl fisheries.

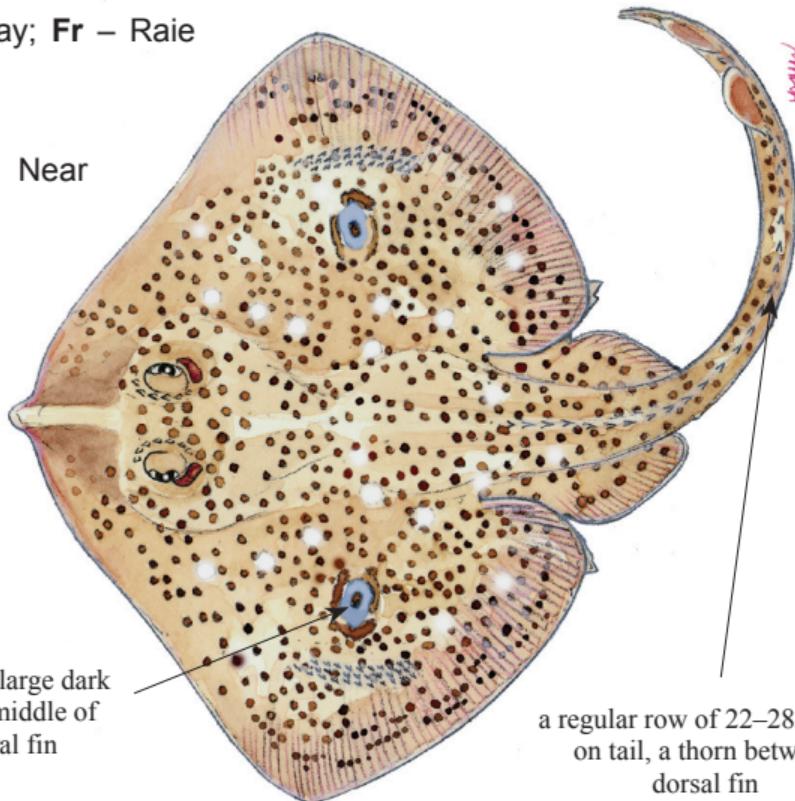
Local names: Bakra; Barakula; Modropegasta raža; Raja lixxa; Raxhë; Raya; Raža modropjega; Razza quattrochi; Trisanit sapirim; Vatoz; Ματόβατος; Páča;

السَّفَنْ; رَايَا; رَايَةٌ مُنْقَطَّةٌ; رِيَةٌ; مَسْحَةٌ بَوْعِينْ

FAO names: En – Speckled ray; Fr – Raie tachetée; Sp – Raya manchada.

Size: To about 50–60 cm TL.

Conservation status: IUCN, Near Threatened.



RAJIDAE

Raja polystigma

Habitat and biology: Benthic mainly on soft bottoms from 100 to 400 m. Oviparous, 20 to 62 egg-cases about 35 to 46 mm in length. Ripe females occur mostly in autumn. Males and females mature at 53 cm TL.

Importance to fisheries: Bycatch of bottom trawl fisheries.

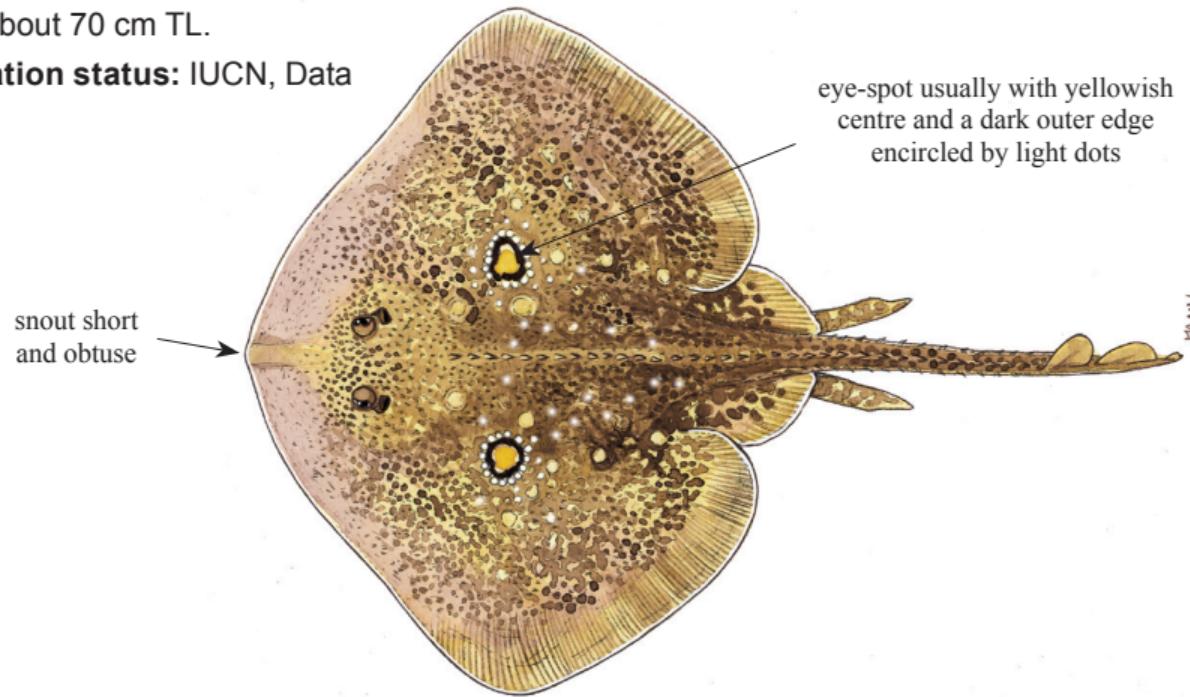
Remarks: Probably misidentified with *R. montagui*, needs to be investigated. Considered as a Mediterranean endemic skate.

Local names: Raje pikaloshe; Raža; Raža polystigma; Razza polistima; Vatoz baliği; Páža;
ΣΤΙΚΤΟΒΑΤΟΣ; الرأة المنقطة; رأيا منقطة; رية; مسحة منقطة

FAO names: En – Rough ray; Fr – Raie râpe;
Sp – Raya aspera.

Size: To about 70 cm TL.

Conservation status: IUCN, Data Deficient.



RAJIDAE

Raja radula

Habitat and biology: Benthic from coastal water to 350 m. Oviparous, egg-cases (51–57 mm length) laid throughout the year mainly in spring and summer, embryos developing in about 4 months. Females mature at 34 cm, males at 30 cm of disc width.

Importance to fisheries: Bycatch in the bottom trawl and artisanal demersal fisheries in coastal grounds.

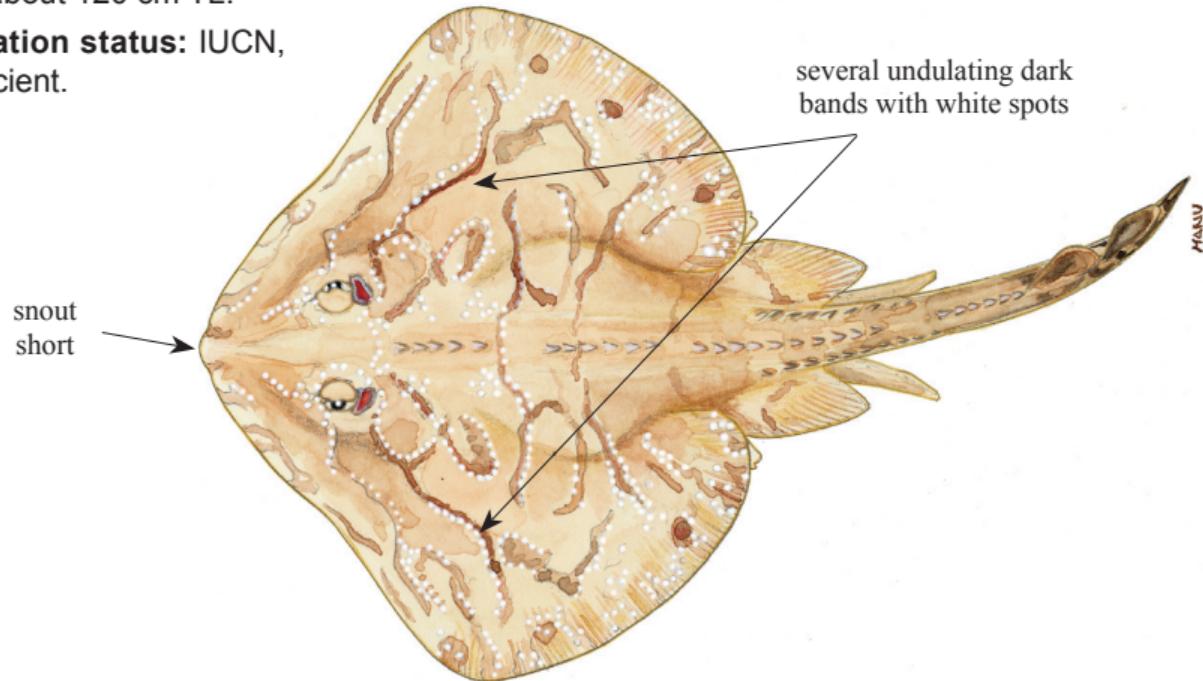
Remarks: It can be considered as endemic in the Mediterranean.

Local names: Bakra; Raja tar; Raje therese; Raya; raža tuponoska; Razza scuffina; Trisanit kadat; Vatoz; Páζa; Τραχύβατος; السُّفَنْ; رَايَا; رَايَةُ الْحَرْشَةِ; رِيَةٌ; مَسْحَةٌ بَوْعِينْ

FAO names: En – Undulate ray; Fr – Raie
brunette; Sp – Raya mosaica.

Size: To about 120 cm TL.

Conservation status: IUCN,
Data Deficient.



RAJIDAE

Raja undulata

Habitat and biology: Benthic in shallow waters to about 300 m, on soft and sandy bottoms. Oviparous, 30 egg-cases (50 to 90 mm length), laid from March to September mainly in spring.

Importance to fisheries: Bycatch in the bottom trawl and artisanal fisheries.

Local names: Raža vijošaraka; Razza ondulata; Trisanit galit; Vatoz baliği; Páča;

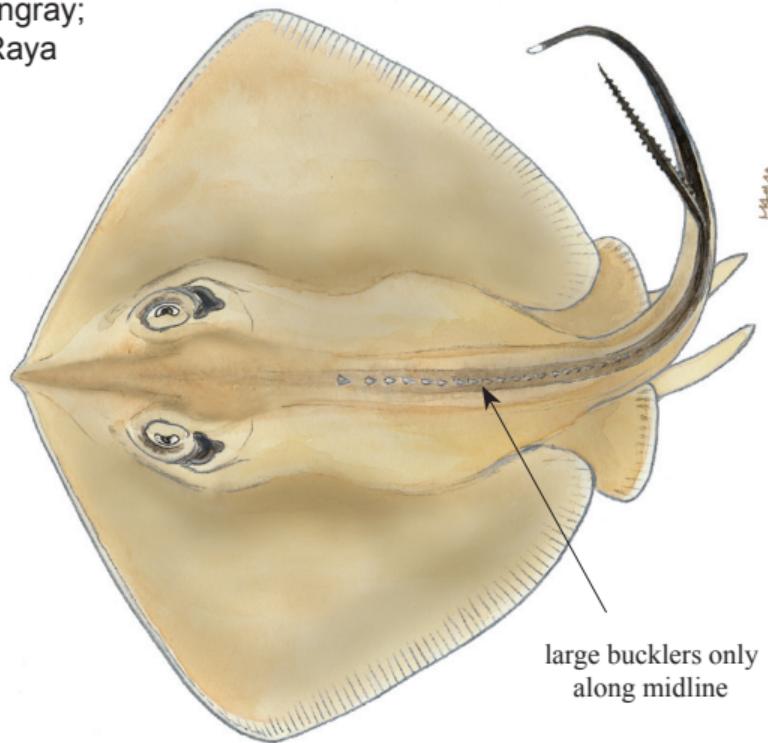
الراية البنية; رايا؛ رية؛ مسحة مزينة

FAO names: En – Common stingray;
Fr – Pastenague commune; Sp – Raya
látigo común.

Size: To 140 cm disc width, usually
45 cm, up to 250 cm TL.

Conservation status: IUCN,
Near Threatened.

5 bulbous papillae
on mouth floor →



large bucklers only
along midline

DASYATIDAE

Dasyatis pastinaca

Habitat and biology: Benthic over sandy and muddy bottoms from shallow waters to 200 m. Ovoviparous with 4 to 9 young born twice per year and after a gestation period of about 4 months. Females mature at 38 cm, males at 32 cm disc width.

Importance to fisheries: Occasional bycatch in bottom trawl and gillnet fisheries.

Local names: Bakra; Baracola; Boll komuni; Igneli vatoz; Morski bič; Pastenague épineuse; Shkotërr; Trigon khad; Žutuga; Batí; Βατοτρυγόνα; بقرة بحر; حمام رأية

FAO names: En – Violet stingray; Fr – Pastenague violette; Sp – Raya látigo violeta.

Size: To 80 cm disc width, at least 190 cm TL.

Conservation status: IUCN, Near Threatened.

10–12 broad-based papillae
surface of the whole body from dark purple to dark greenish blue



DASYATIDAE

Pteroplatytrygon violacea

Habitat and biology: Pelagic in warm temperate waters, usually up to 100 m, occasionally 240 m. Ovoviparous; mating in spring, 5 to 6 young hatching in late summer. Feeds on coelenterates, squids, decapods and pelagic fishes.

Importance to fisheries: Caught by drift nets and by drifting longlines targeting tuna and swordfish. Discarded because of their low or no commercial value.

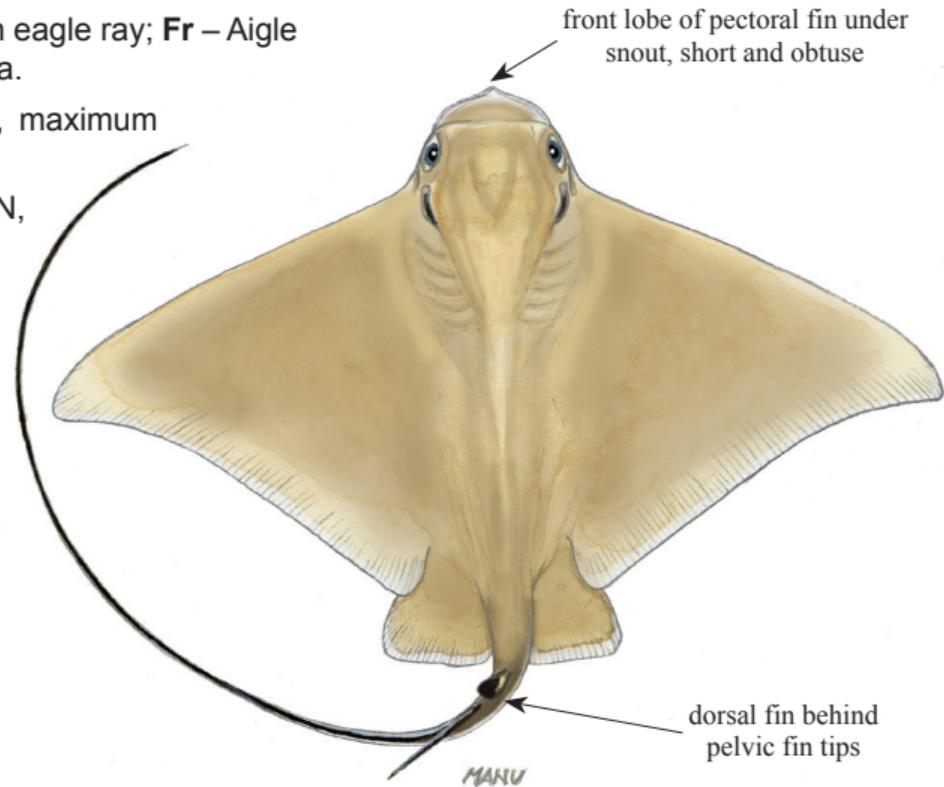
Local names: Bakra; Boll vjola; Pastengue violette; Pelagični morski bič; Trigon kad; Trigone viola; Žutuga ljubičasta; Maúpo βατί;

بقرة سوداء; جريوع أزرق; حمام؛ رايا

FAO names: En – Common eagle ray; Fr – Aigle commun; Sp – Aguila marina.

Size: To 83 cm disc width, maximum 260 cm TL.

Conservation status: IUCN, Near Threatened.



MYLIOBATIDAE

Myliobatis aquila

Habitat and biology: Semipelagic in warm temperate coastal waters, occasionally oceanic, from shallow waters to 200 m. Ovoviparous with 3 to 7 young, gestation period 6 to 8 months. Females mature at 60 cm, males at 40 cm disc width.

Importance to fisheries: Caught by bottom trawl and gillnet fisheries.

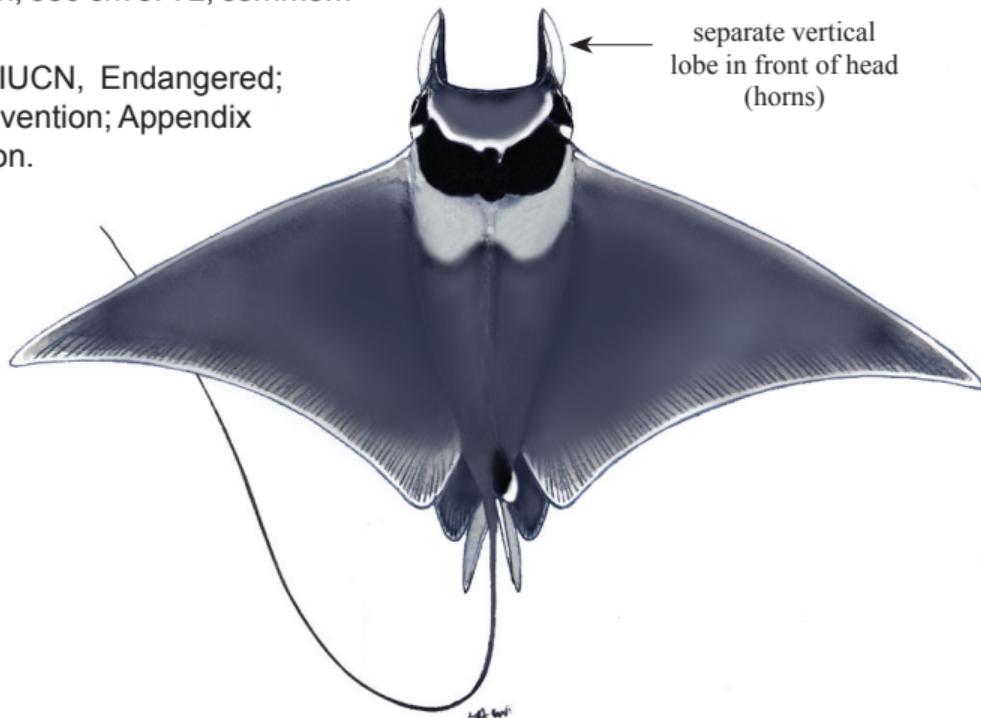
Local names: Aquila di mare; ÇUÇUNA; Golub kosir; Hamiema komuni; Morski golob; Shqiponje deti; Takhan eyti; Wetwat; Woutwat; Αετόψαρο; Αετόψαρο;

الصقر البحري; حمام; فأر بحر; موكا; وطواط

FAO names: En – Devil ray; Fr – Mante; Sp – Manta.

Size: To 520 cm disc width, 650 cm of TL, common
300 cm disc width.

Conservation status: IUCN, Endangered;
Appendix 2 of Bern Convention; Appendix
2 of Barcelona Convention.



MOBULIDAE

Mobula mobular

Habitat and biology: Semipelagic to pelagic in warm temperate seas over continental shelves. Gregarious apparently make long migrations, usually swimming close to the surface. Ovoviparous, usually with 1 or more, rarely 2 young on the back reaching up to 180 cm of disc width at birth. Probably gestation period of 25 months and parturition in summer. Feeding on small pelagic fishes and crustaceans filtered out by gill plates.

Importance to fisheries: Occasional bycatch of purse seine and artisanal fisheries.

Local names: Baqra; Cheitan; Diavolo di mare; Golub uhan; Knaftan yam; Kulakli folya; Lope deti; Διαβολόψαρο; Διαβολόψαρο;

الراية الكحالة الكبيرة; حمام; رايا; شيطان البحر; شيطان بحر

OTHER SPECIES OCCURRING IN THE AREA

SHARKS



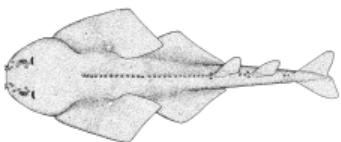
Hexanchus nakamurai Teng, 1962



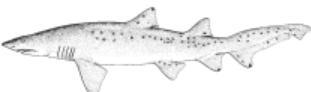
Echinorhinus brucus (Bonnaterre, 1788)



Somniosus rostratus (Risso, 1827)



Squatina aculeata Dumeril, in Cuvier, 1817



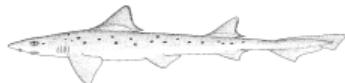
Carcharias taurus Rafinesque, 1810



Odontaspis ferox (Risso, 1810)



Galeus atlanticus (Vaillant, 1888)



Mustelus punctulatus Risso, 1826



Carcharhinus altimus (Springer, 1950)



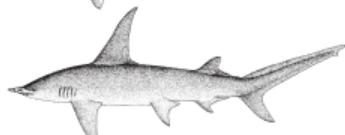
Carcharhinus brachyurus (Günther, 1870)



Rhizoprionodon acutus (Rüppell, 1837)

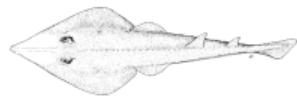


Sphyrna tudes (Valenciennes, 1822)

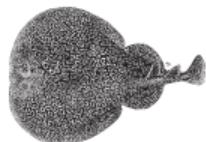


Sphyrna mokarran (Rüppell, 1837)

RAYS, SKATES, GUITARFISHES and MANTAS



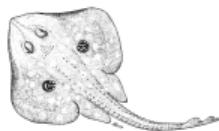
Rhinobatos cemiculus Geoffroy St-Hilaire, 1817



Torpedo sinuspersici Olfers, 1831



Dipturus batis (Linnaeus, 1758)



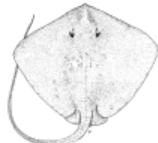
Leucoraja naevus (Müller and Henle, 1841)



Raja montagui Fowler, 1910



Rostroraja alba Lacépède, 1803



Dasyatis centroura (Mitchill, 1815)



Dasyatis chrysonota marmorata (Steindachner, 1892)



Himantura uarnak (Forsskål, 1775)



Gymnura altavela (Linnaeus, 1758)



Pteromylaeus bovinus (Geoffroy St-Hilaire, 1817)



Rhinoptera marginata (Geoffroy St-Hilaire, 1817)

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This set of cards on Sharks and Rays of the Mediterranean and Black Sea is aiming at providing a quick reference and identification tool for the elasmobranchs of the area. The pocket format and the plastic support make it an easy-to-carry tool that can be used in wet environments and underwater. It is aiming at serving the needs of those involved in collecting data on sharks and rays and more generally agencies and the public having an interest in these species. The use of colour paintings instead of photographs was retained as it gives better possibilities to show all the characteristic features on a single illustration and also provides a reliable representation of the colours.

