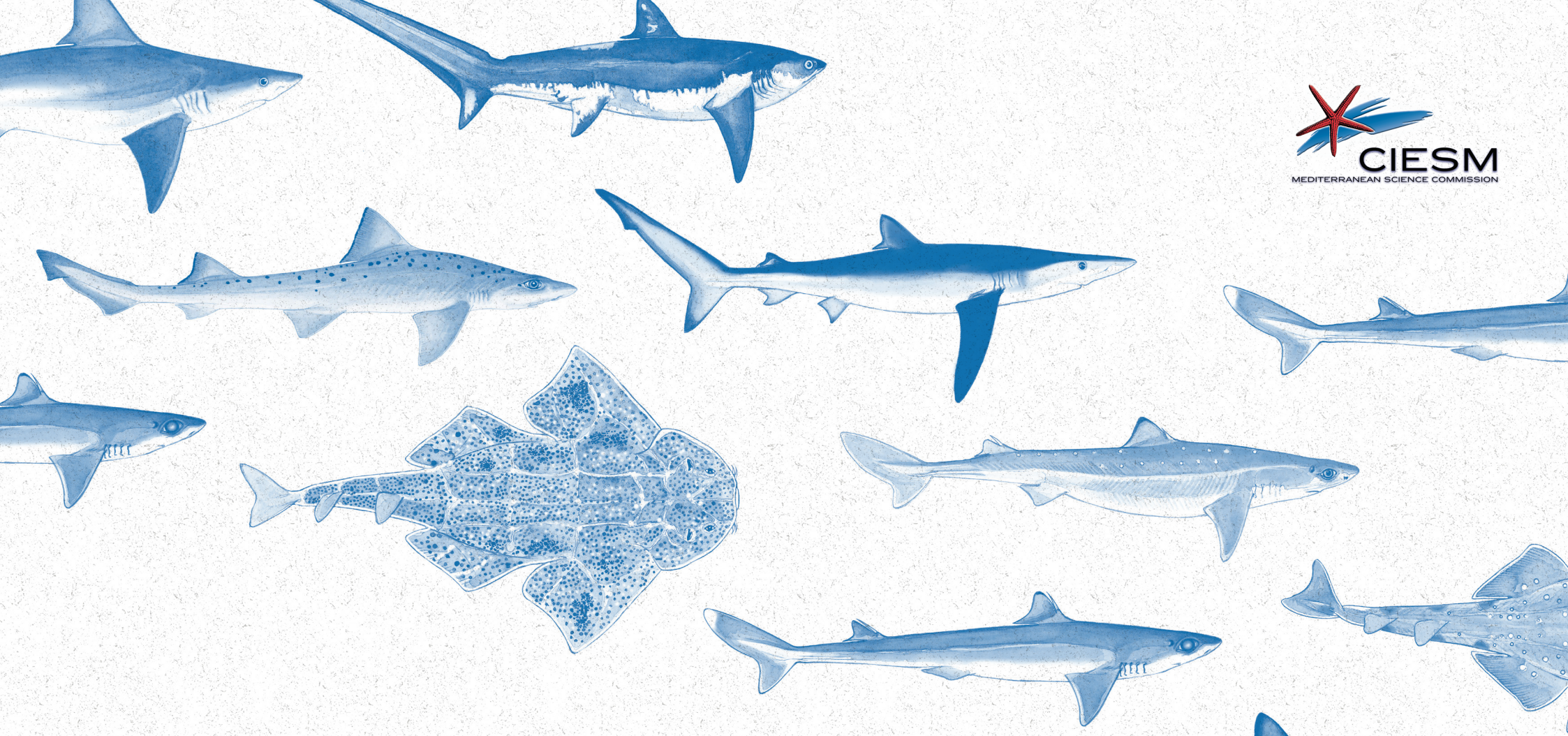


CIESM
MEDITERRANEAN SCIENCE COMMISSION

SHARKS IN THE MEDITERRANEAN

A SPECIES IDENTIFICATION GUIDE FOR LOCAL ECOLOGICAL KNOWLEDGE SURVEYS

This booklet serves as a user-friendly guide for identifying a selection of shark species which can be found in Mediterranean waters. Its primary goal is to ensure their accurate identification, particularly during collaborative fieldwork involving researchers and local fishers.

Given the daily interaction of local fishers with the marine ecosystem, they possess a remarkable and often untapped wealth of ecological knowledge. This may include crucial insights into shark species, such as their distribution, abundance, seasonal behavior and aggregations. Fishers may also harbor valuable information about rare shark species that may evade scientific observation. By fostering strong, transparent relationships with local fishers, monitoring of these species becomes possible across national boundaries.

The collaboration between Mediterranean fishers and the Mediterranean Science Commission, facilitates the exchange of vital information drawn from fishers' experiences and observations. This partnership not only offer significant potential for enhancing scientific understanding of Mediterranean sharks but it may also play a crucial role in preserving a thriving marine ecosystem for the common good.

The Commission, with headquarters in Monaco, has grown from the eight founding countries of its origin to 23 Member States today. These support a network of several thousand marine researchers, applying the latest scientific tools to better understand, monitor and protect a fast-changing, highly impacted Mediterranean Sea. Structured in six committees and various taskforces, CIESM runs expert workshops, collaborative programs and regular congresses, delivering authoritative, independent advice to national and international agencies. The Commission integrates a broad spectrum of marine disciplines, encompassing geo-physical, chemical and biological processes, along with high-resolution mapping of the sea-bottom. Today, changes are occuring at a fast, unprecedented pace in the Mediterranean Sea. CIESM tracks and analyses these changes at the scale of the whole Basin, from the impact of global warming on sea-level and water masses to changes in marine biodiversity; from morphological changes in coastlines to the accumulation of trace metals in marine food chains. CIESM involves researchers from all shores of the Basin in its activities. This is a proud, century-long legacy which not only fosters the exchange of scientific standards and ideas, but maintains a constructive, peaceful dialogue among populations divided for too long by historical conflicts.

TABLE OF CONTENTS

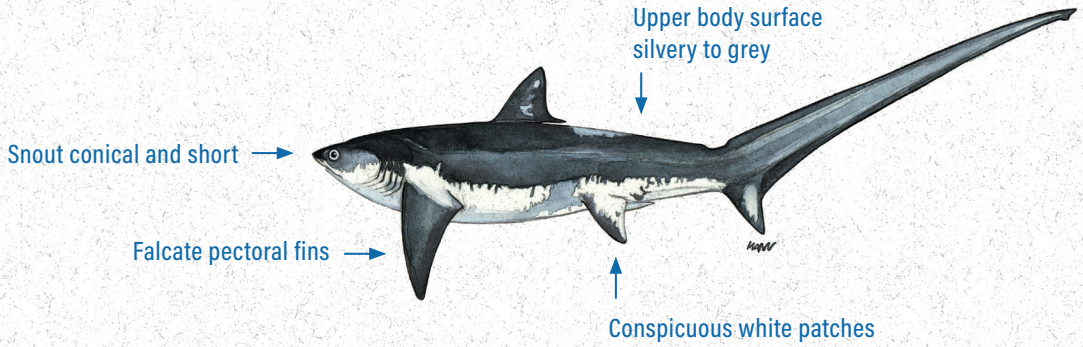
TARGET SPECIES TO BE INVESTIGATED

Nine species to be investigated in all Mediterranean countries according to a series of questions

Alopias vulpinus **Thresher shark**
Carcharhinus plumbeus **Sandbar shark**
Isurus oxyrinchus **Shortfin mako**
Mustelus mustelus **Smooth-hound**
Mustelus punctulatus **Blackspotted smooth-hound**
Prionace glauca **Blue shark**
Squalus acanthias **Picked dogfish**
Squalus blainville **Longnose spurdog**
Squatina spp. **Angel shark**

Alopias vulpinus

THRESHER SHARK



BODY LENGHT

Male: 260 cm (max. 420 cm)
Female: 260 cm (max. 575 cm)

GEOGRAPHIC RANGE

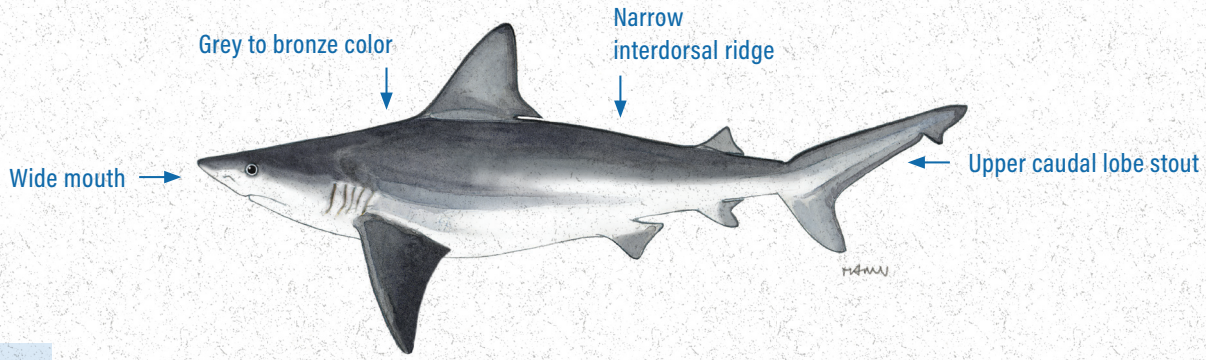
Recorded throughout the Mediterranean.

HABITAT

Mostly over continental shelves (within 70km of land), but also offshore. Found up to 400 m deep.

Carcharhinus plumbeus

SANDBAR SHARK



BODY LENGHT

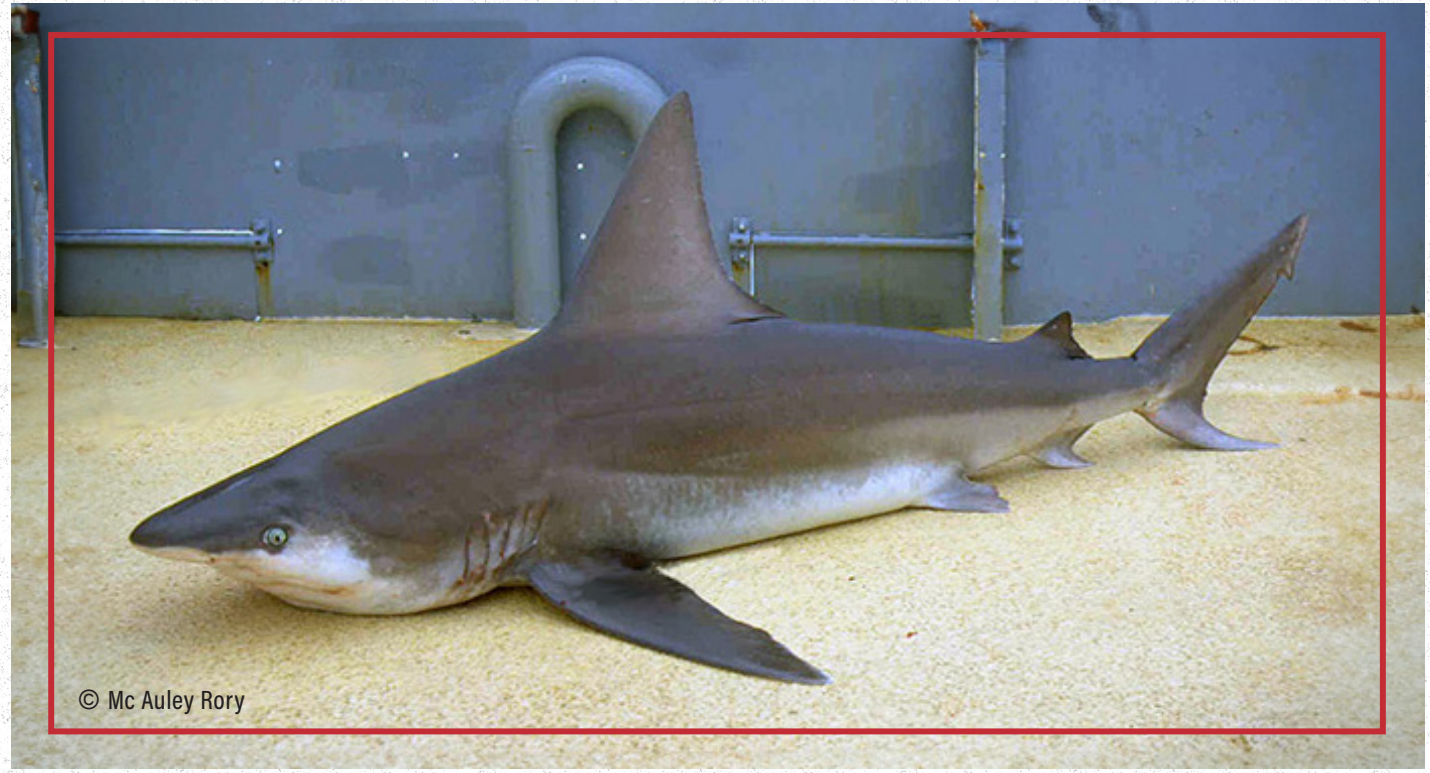
Male: 129-180 cm
Female: 129-185 cm
(max. 234 cm)

GEOGRAPHIC RANGE

From Spain and Morocco and throughout Mediterranean (except Sea of Marmara and Black Sea).

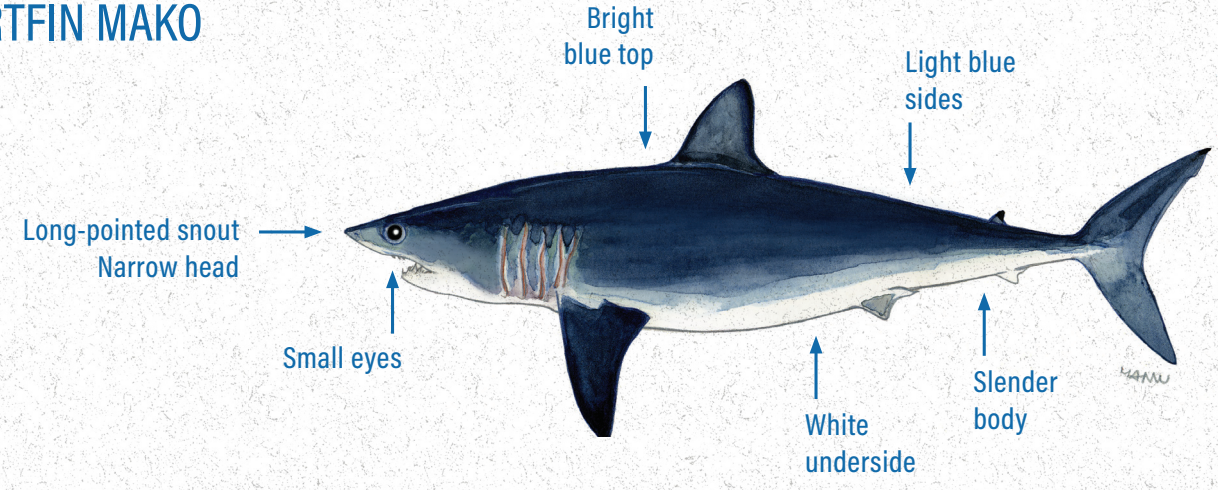
HABITAT

Continental and insular shelves and in deep water adjacent to them. From the surface to 280 m.



Isurus oxyrinchus

SHORTFIN MAKO



BODY LENGHT

Male: 180 - 215 cm
Female: 270 - 300 cm
(max. 450 cm)

GEOGRAPHIC RANGE

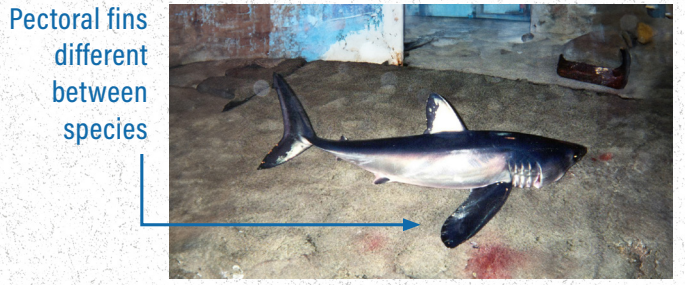
Widespread in the Mediterranean, declining in most regions.

HABITAT

Found at the surface and down to 600 m in tropical and warm-temperate seas.

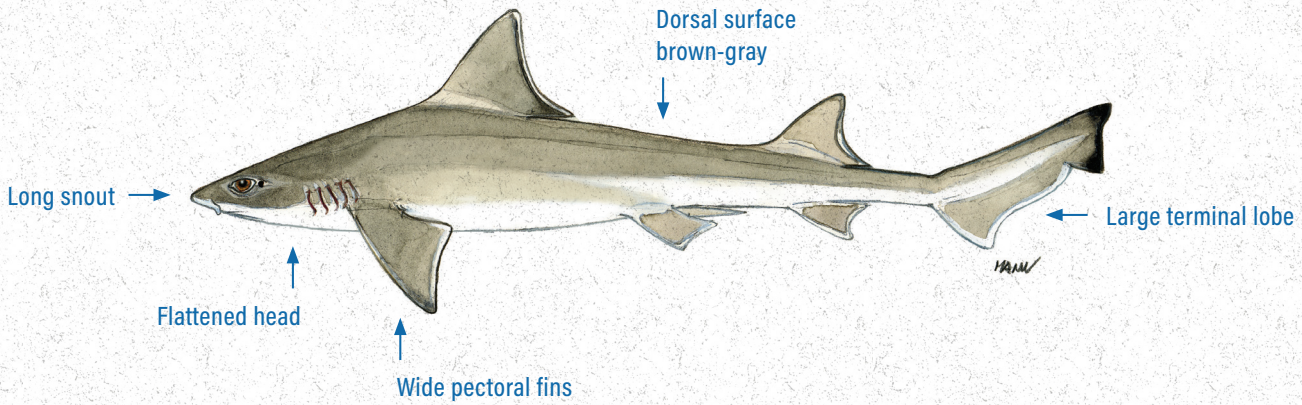
Isurus paucus

LONGFIN MAKO SHARK



Mustelus mustelus

SMOOTH-HOUND



BODY LENGHT

Male: 70-112 cm (max. 112 cm)
Female: 107-124 cm (max. 175 cm)

GEOGRAPHIC RANGE

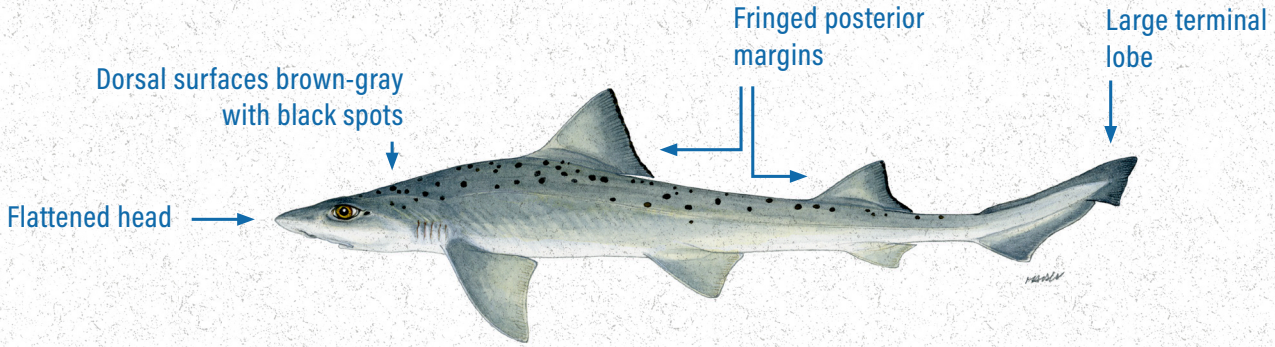
Throughout the Mediterranean.

HABITAT

Benthic, on continental shelves and upper slopes. From 5 to 450 m deep.

Mustelus punctulatus

BLACKSPOTTED SMOOTH-HOUND



BODY LENGHT

Male: 76 - 89 cm (max. 111 cm)
Female: 88 - 100 cm (max. 122cm)

GEOGRAPHIC RANGE

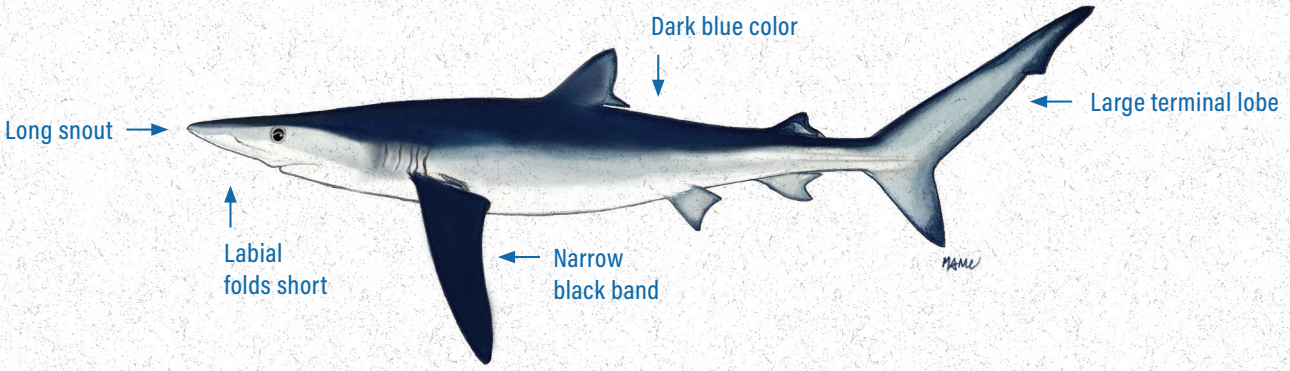
Rare in the northern Mediterranean, occurs mostly in Tunisia and Libya.

HABITAT

Continental shelves and uppermost slopes, from the intertidal region to 350 m deep.

Prionace glauca

BLUE SHARK



BODY LENGHT

Male: 182 - 281 cm (max. 311 cm)
Female: >211 cm (max. 383 cm)

GEOGRAPHIC RANGE

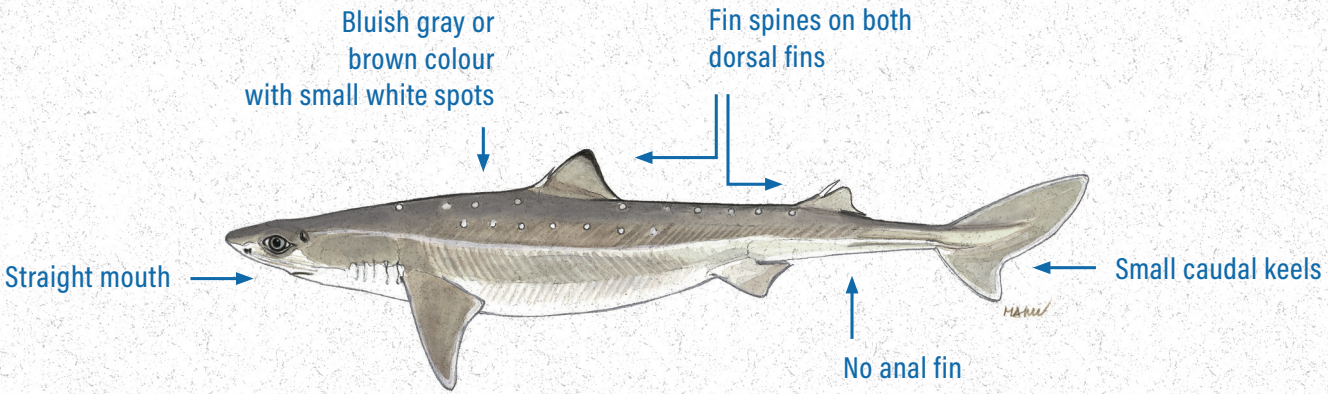
Widespread in the Mediterranean, declining in most regions.

HABITAT

Continental and insular shelves and oceanic basins. Found at the surface and down to 350 m.

Squalus acanthias

PICKED DOGFISH



BODY LENGHT

Male: 58 - 64 cm (max. 95 cm)
Female: 74 - 93 cm (max. 124 cm)

GEOGRAPHIC RANGE

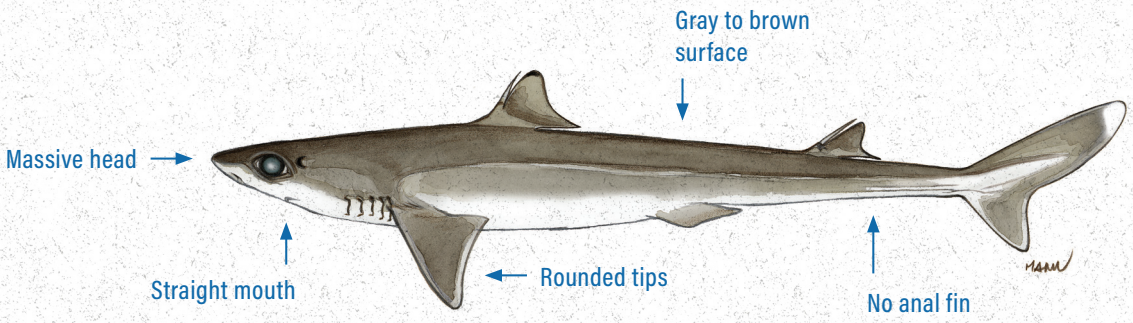
Recorded in the northern part of the Mediterranean Sea, in the Adriatic Sea, and in the Black Sea.

HABITAT

Found on continental and insular shelves and upper slopes, from the surface to 1978 m deep.

Squalus blainville

LONGNOSE SPURDOG



BODY LENGHT

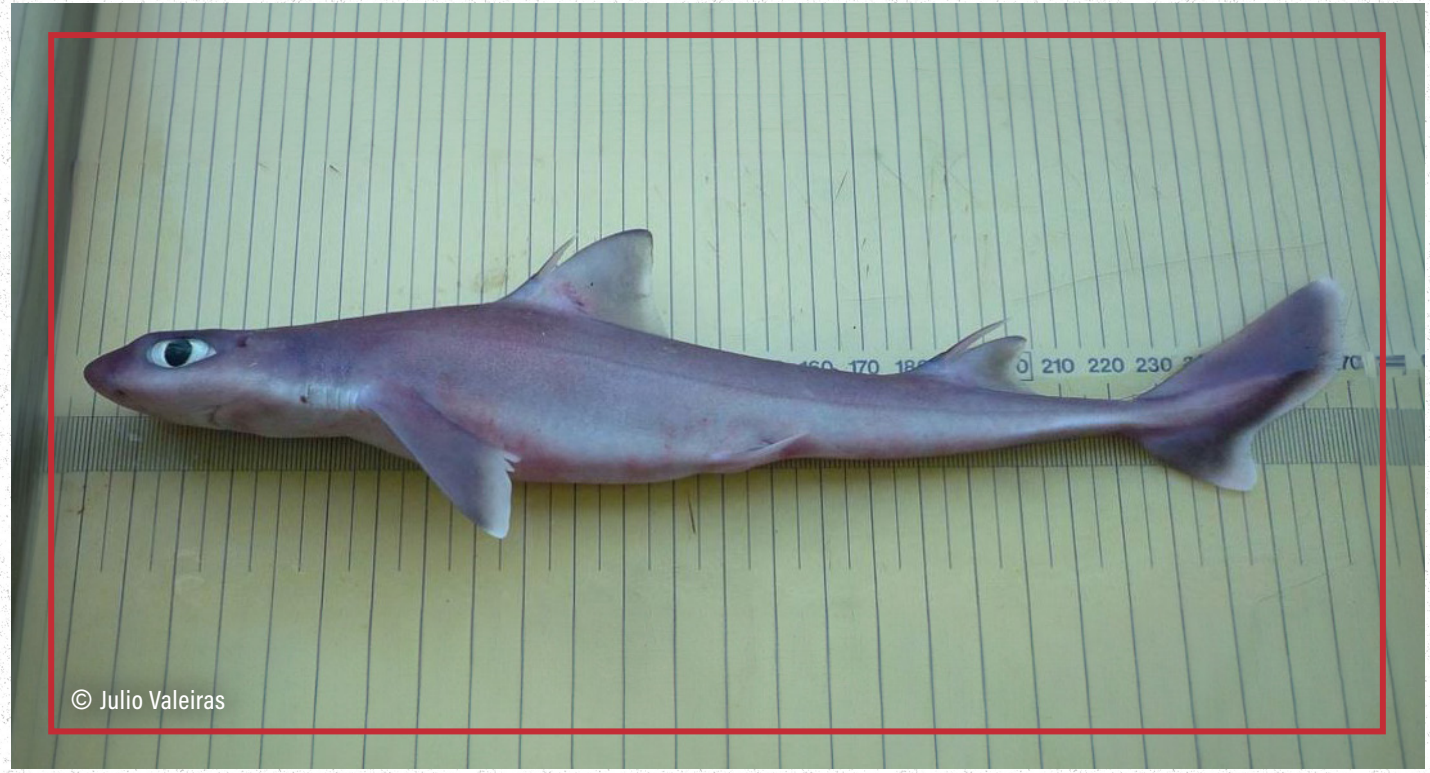
Male: 45 - 50 cm (max. 80 cm)
Female: 50 - 65 cm (max. 92cm)

GEOGRAPHIC RANGE

Throughout the Mediterranean. Most records in the eastern Ionian and Aegean Seas, eastern Corsica, and southern Sicily.

HABITAT

From 16 to 440 m deep.



Squatina spp.

ANGEL SHARK

BODY LENGHT

***S. squatina*:**

Male: 80 - 132 cm

Female: 126 - 167 cm

***S. oculata*:**

Male: 82 cm (max. 145 cm)

Female: 89 cm (max. 160 cm)

***S. aculeata*:**

Male: 120 cm (max. 152 cm)

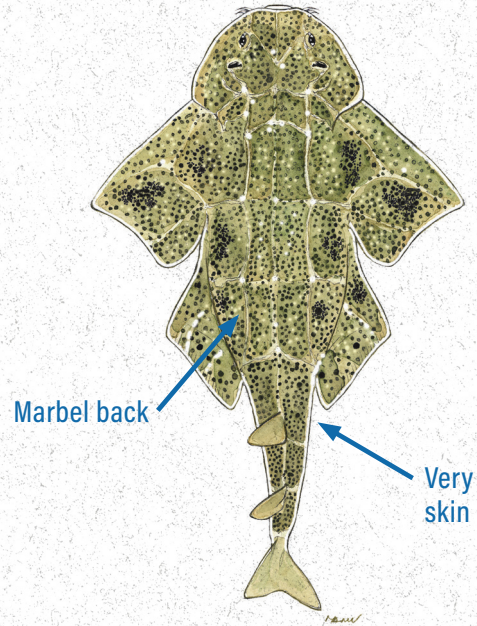
Female: 137 cm (max. 188 cm)

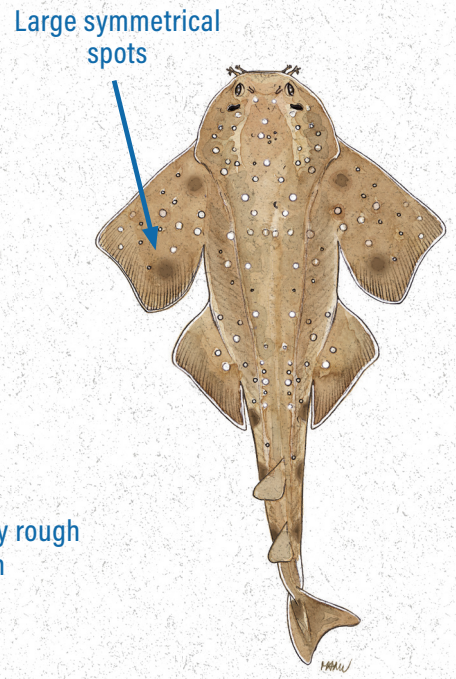
GEOGRAPHIC RANGE

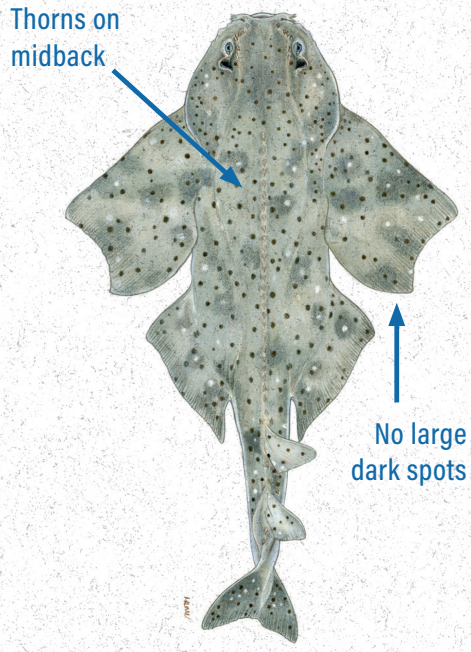
Sporadic in the Mediterranean Sea.

HABITAT

Found near mud or sandy bottoms on continental shelves.







S. squatina

S. oculata

S. aculeata

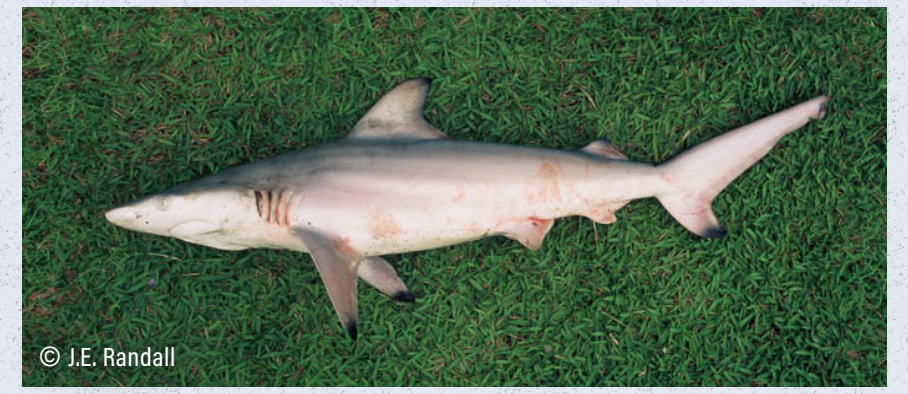
TARGET SPECIES TO
RECORD OCCURRENCES

Rare or endangered species significant enough to warrant single occurrence records. Each recorded capture/observation must be taxonomically verified and be substantiated with a picture or video

Alopias superciliosus **Bigeye thresher**
Carcharhinus limbatus **Blacktip shark**
Carcharias taurus **Sand tiger shark**
Centrophorus uyato **Little gulper shark**
Cetorhinus maximus **Basking shark**
Dalatias licha **Kitefin shark**
Galeocerdo cuvier **Tiger shark**
Hexanchus griseus **Bluntnose sixgill shark**
Heptranchias perlo **Sharpnose sevengill shark**
Isurus paucus **Longfin mako**
Odontaspis ferox **Smalltooth sand tiger**
Oxynotus centrina **Angular rough shark**
Sphyrna mokarran **Great hammerhead**
Lamna nasus **Porbeagle shark**

Alopias superciliosus
BIGEYE THRESHER

Male: 270 - 290 cm
Female: 330 - 360 cm
(max. 480 cm)



Carcharhinus limbatus
BLACKTIP SHARK

Male: 135 - 180 cm
Female: 120 - 190 cm
(max. 255 cm)

Carcharias taurus
SAND TIGER SHARK

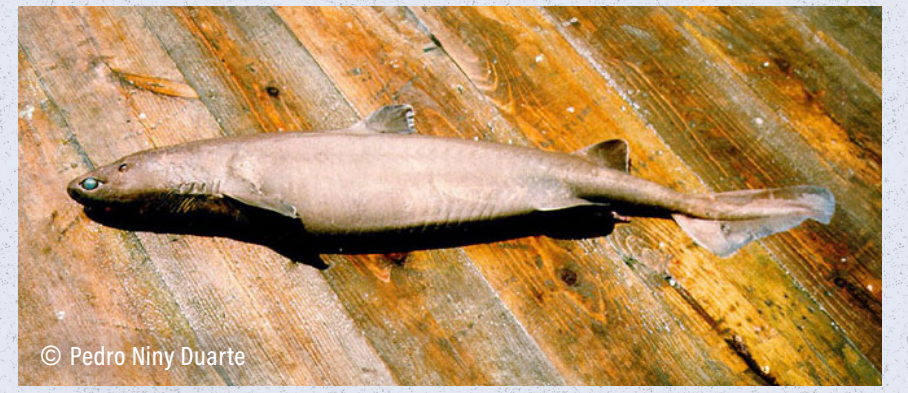
Male: 190 - 195 cm (max. 257 cm)
Female: 220 - 230 cm (max. 325 cm)

Centrophorus uyato
LITTLE GULPER SHARK

Male: 82 - 91 cm
Female: 87 - 89 cm
(max. 112 cm)

Cetorhinus maximus
BASKING SHARK

Male: 750 - 800 cm
Female: >800 cm
(max. >1097 cm)



Dalatias licha
KITEFIN SHARK

Male: ~ 100 cm
Female: ~ 120 cm
(max. 182 cm)

Galeocerdo cuvier
TIGER SHARK

Male: 226 - 292 cm (max. 370 cm)
Female: 250 - 350 cm (max. > 550 cm)

Hexanchus griseus
BLUNTNOSE SIXGILL SHARK

Male: > 310 cm
Female: > 482 cm
(max. 550 cm)


© Pedro Miguel Niny Cambraia

Heptranchias perlo
SHARPNOSE SEVENGILL SHARK

Male: 70 - 85 cm (max. 107 cm)
Female: > 95 cm (max. 140 cm)


© PIRO-NOAA

Isurus paucus
LONGFIN MAKO

Male: 190 - 228 cm
Female: 245 cm
(max. 430 cm)


© Samuel P. Iglesias

Odontaspis ferox
SMALLTOOTH SAND TIGER

Male: 200-250 cm (max. 344 cm)
Female: 300-330 cm (max. 450 cm)


© Granada University

Oxynotus centrina
ANGULAR ROUGH SHARK

Male: 50 - 60 cm
Female: 52 - 66 cm
(max. 150 cm)

Sphyrna mokarran
GREAT HAMMERHEAD

Male: 234 - 269 cm (max. 380 cm)
Female: 250 - 300 cm (max. 550 cm)

Lamna nasus*
PORBEAGLE SHARK

Male: ~ 195 cm
Female: ~ 245 cm
(max. 355 cm)

*Do not confound with young great white shark (*Carcharodon carcharias*)

CIESM
MEDITERRANEAN SCIENCE COMMISSION

 With the financial support of FPA2.

FONDATION
PRINCE ALBERT II
DE MONACO