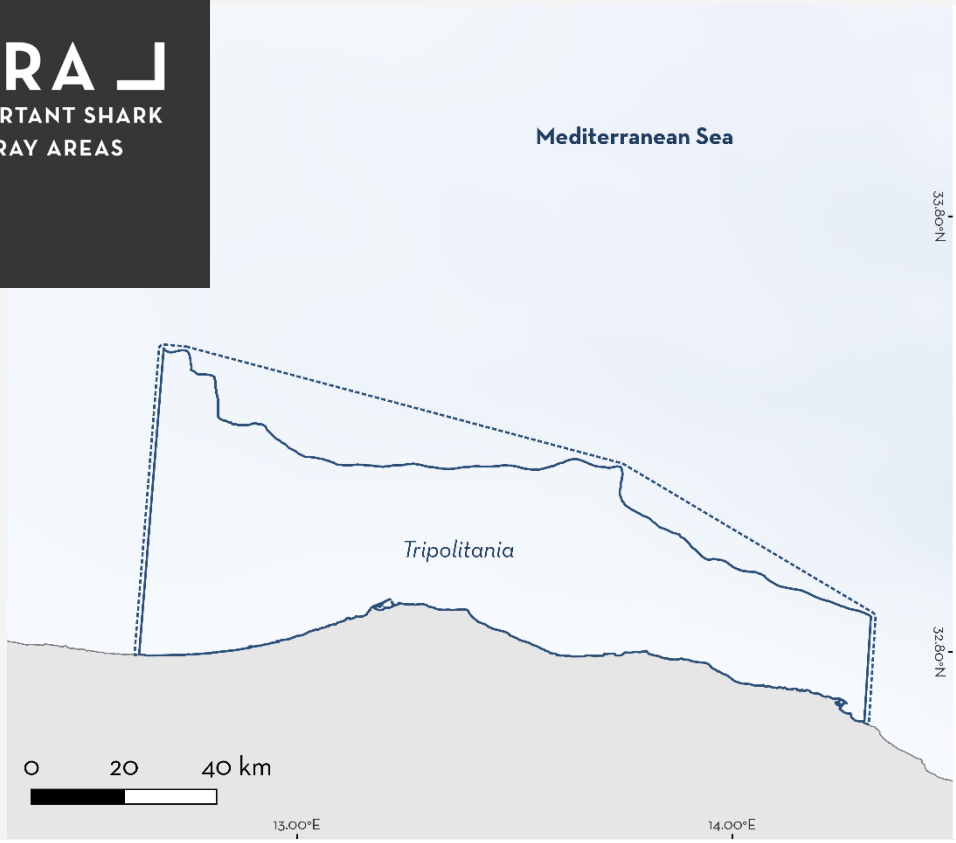
ISRA
IMPORTANT SHARK AND RAY AREAS



Blue lines indicate the area meeting the ISRA Criteria; dashed lines indicate the suggested buffer for use in the development of appropriate place-based conservation measures

TRIPOLITANIA ISRA

Mediterranean and Black Seas Region

LIBYA

0–200 metres

6,423.4 km²

SUMMARY

Tripolitania is located along the coast of Libya in the southern Mediterranean Sea. The area is characterised by a wide continental shelf that joins the Libyan land mass to the Malta and Medina Banks with habitats such as seagrass beds, rocky ledges, and sand deposits. The area overlaps with an Ecologically or Biologically Significant Marine Area and a Key Biodiversity Area. Within this area there are: **threatened species** and **reproductive areas** (Common Smoothhound *Mustelus mustelus*).

CRITERIA

Criterion A – Vulnerability; Sub-criterion C1 – Reproductive Areas

DESCRIPTION OF HABITAT

Tripolitania stretches >150 km along the Libyan coast and has a wide continental shelf with a high diversity of ecosystems. It is characterised by rocky areas interspersed with sandy areas and includes seagrass meadows. Along the coast, there is a series of regular rocky ledges down to a depth of ~30 m, creating rocky platforms which are covered by sand deposits of varying thickness (Shakman & Kinzelbach 2007).

The area overlaps with the Sicilian Channel Ecologically or Biologically Significant Marine Area (CBD 2023), and the Karabolli Key Biodiversity Area (KBA 2023).

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 200 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A – VULNERABILITY

The one Qualifying Species within the area is considered threatened with extinction according to the IUCN Red List of Threatened Species™. The Common Smoothhound is assessed as Endangered (Jabado et al. 2021).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Tripolitania is an important reproductive area for one shark species.

All lifecycle stages of the Common Smoothhound were observed at monthly landing site surveys conducted between November 2015 to December 2016 (Kara et al. 2019a). Libyan fishers use an artisanal fleet that operates within this area and therefore almost all sharks found at these landing sites are caught on the continental shelf. Of 370 individuals recorded, 190 (51%) were female and measured 46.8–168 cm total length (TL). Maximum size for the species in the region is 168 cm TL for females and 145 cm TL for males (Saïdi et al. 2008; Kara et al. 2019a).

Mature females made up to 53% of records in March and April 2016 (from a total of 63 individuals). Additionally, 19 pregnant females were recorded year-round (10% of females) with a total of 282 embryos (4–12 per female). Embryos measured between 12–29 cm TL (size-at-birth is 34–42 cm TL in the Mediterranean Sea; Saïdi et al. 2008). The smallest embryos were observed in September (7.5 cm TL), and the largest in March (29 cm TL), suggesting that parturition occurs in April-May (Kara et al. 2019a). Additionally, of the 370 individuals recorded, 62 could be considered young-of-the-year (17%) measuring 40–59 cm TL (Kara et al. 2019a). A further 92 immature individuals (25%) measured 60–69 cm TL (Kara et al. 2019a), likely aged 1–2 years.

Acknowledgments

Esmail Shakman (Tripoli University, Libyan Society of Artisanal Fishery Friends), Khaled Etayeb (Tripoli University), Abdalha ben Abdalha (Tripoli University), Mahmoud Salih (Tubruk University, Marine Biology Research Centre), Akram Turki (Marine Biology Research Centre), Mohamed Elhajaji (Libyan Society of Artisanal Fishery Friends, Marine Biology Research Centre), Ryan Charles (IUCN SSC Shark Specialist Group - ISRA Project), and Jenny Bortoluzzi (IUCN SSC Shark Specialist Group - ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2023 ISRA Region 3 – Mediterranean and Black Seas workshop for their contributions to this process.

This factsheet has undergone review by the ISRA Independent Review Panel prior to its publication.

This project was funded by the Shark Conservation Fund, a philanthropic collaborative pooling expertise and resources to meet the threats facing the world's sharks and rays. The Shark Conservation Fund is a project of Rockefeller Philanthropy Advisors.

Suggested citation

IUCN SSC Shark Specialist Group. 2023. Tripolitania ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

QUALIFYING SPECIES

Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met								
				A	B	C1	C2	C3	C4	C5	D1	D2
SHARKS												
Mustelus mustelus	Common Smoothhound	EN	5-800	X		X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Alopias superciliosus	Bigeye Thresher	VU
Alopias vulpinus	Common Thresher	VU
Cetorhinus maximus	Basking Shark	EN
Isurus oxyrinchus	Shortfin Mako	EN
Lamna nasus	Porbeagle	VU
Mustelus punctulatus	Blackspotted Smoothhound	VU
Oxynotus centrina	Angular Roughshark	EN
Scyliorhinus stellaris	Nursehound	VU
Sphyrna lewini	Scalloped Hammerhead	CR
Sphyrna zygaena	Smooth Hammerhead	VU
Squalus acanthias	Spiny Dogfish	VU
Squatina oculata	Smooothback Angelshark	CR
Squatina squatina	Angelshark	CR
RAYS		
Aetomylaeus bovinus	Duckbill Eagle Ray	CR
Gymnura altavela	Spiny Butterfly Ray	EN
Mobula mobular	Spinetail Devil Ray	EN
Myliobatis aquila	Common Eagle Ray	CR
Raja radula	Rough Skate	EN
Rhinobatos rhinobatos	Common Guitarfish	CR
Torpedo marmorata	Marbled Torpedo Ray	VU
Torpedo torpedo	Ocellate Torpedo	VU
CHIMAERAS		
Chimaera monstrosa	Rabbitfish	VU

IUCN Red List of Threatened Species Categories are available by searching species names at www.iucnredlist.org Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.

SUPPORTING INFORMATION

There are additional indications that the area is important for Common Smoothhound feeding.

Common Smoothhounds take advantage of the highly productive coastal habitats of Tripolitania at various lifecycle stages (Kara et al. 2019b). Of the 269 Common Smoothhound stomachs examined between November 2015 and November 2016, 75% contained prey items. The diet consisted of five major groups: teleost fishes, crustaceans, cephalopoda, nemertea, and polychaeta (Kara et al. 2019b).

Teleosts were the most important prey, constituting 50% of the total Index of Relative Importance (IRI%), followed by crustaceans (%IRI = 34). Cephalopods, nemertea, and polychaetes were of comparatively low importance (Kara et al. 2019b). In other parts of the Mediterranean Sea, Common Smoothhounds feed primarily on crustaceans, followed by teleosts and cephalopods (Morte et al. 1997; Saïdi et al. 2009; Di Lorenzo et al. 2020). However, in this area, pelagic and benthopelagic teleosts make up a majority of its diet, in all seasons except for the boreal autumn, followed by crustaceans (Kara et al. 2019b). These differences in prey selectivity in this area compared to other Mediterranean Sea locations indicate that this area may be important for feeding for the species where they take advantage of the productive coastal environment.

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