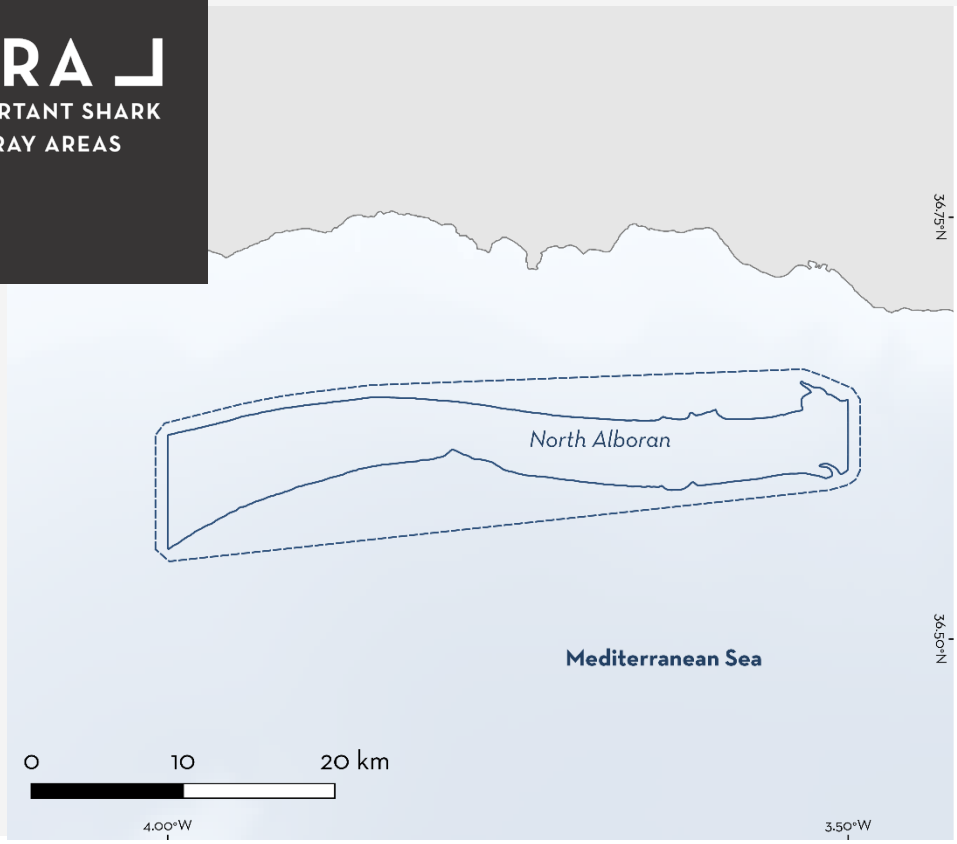
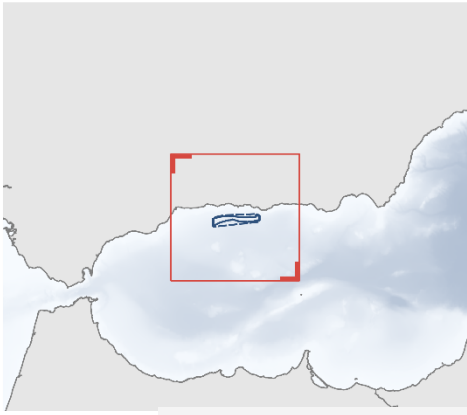
ISRA
IMPORTANT SHARK AND RAY AREAS





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

NORTH ALBORAN ISRA

Mediterranean and Black Seas Region

SPAIN

400-600 metres

210.1 km²

SUMMARY

North Alboran is located in the western Mediterranean Sea off Andalusia, Spain. This subsurface area encompasses benthic habitats of the upper continental slope. Sedimentary deposits dominate the seafloor with mud substrates interspersed with hard substrates. The area is influenced by the convergence of Atlantic and Mediterranean water masses with high chlorophyll-a concentration and wind-driven upwelling. Within this area there are: **range-restricted species** (Atlantic Sawtail Catshark *Galeus atlanticus*).

CRITERIA

Criterion B – Range Restricted

DESCRIPTION OF HABITAT

North Alboran is located in the western Mediterranean Sea off Andalusia, Spain. This subsurface area encompasses benthic habitats of the upper continental slope. The adjacent continental shelf of the Iberian Peninsula is narrow (Sánchez-Garrido & Nadal 2022) resulting in deepwater environments close to the coastline. Sedimentary deposits dominate the seafloor with mud substrates interspersed with hard substrates (Grinyó et al. 2020; Ercilla et al. 2021).

The area is influenced by the convergence of Atlantic and Mediterranean water masses (Ercilla et al. 2021). Mediterranean water (the Levantine Intermediate Water) moves westwards along the slope, driving sediment transport and seafloor reworking (Grinyó et al. 2020; Ercilla et al. 2021). Chlorophyll-*a* concentration is high along the shelf and slope of the northern Alboran Sea including this area (Sánchez-Garrido & Nadal 2022). Wind-driven upwelling is more recurrent and stronger along this margin than elsewhere in the Alboran Sea (Sánchez-Garrido & Nadal 2022).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 400–600 m based on the depth range of Qualifying Species in the area.

CRITERION B – RANGE RESTRICTED

The area holds the regular presence of Atlantic Sawtail Catshark as a resident range-restricted species. This species occurs within the area year-round and is more abundant within the area than adjacent regions of Mediterranean Spain including the Balearic Islands (Rey et al. 2010; Ramírez-Amaro et al. 2020). Catches from benthic trawls from the Mediterranean International Trawl Survey (MEDITS) database from 1995–2015 were compared between the broader Northern Alboran Sea region (Geographical Sub-Area [GSA] 01; encompassing this area), eastern Mediterranean Spain ('Northern Spain'; GSA06), and the Balearic Islands (GSA05) (Ramírez-Amaro et al. 2020). A total of 3,238 Atlantic Sawtail Sharks were recorded in the broader Northern Alboran Sea region while none were recorded in the two adjacent regions (Ramírez-Amaro et al. 2020). Within the broader Northern Alboran Sea region, a subset of MEDITS data from 1997–2003 identified core abundance centred in a smaller area between 3.5º and 4.0ºW and 400–600 m depth, representing the North Alboran area (Rey et al. 2010). Here, mean abundance peaked at 49.5 individuals/hour of trawling, higher than the next largest catch rate (35.3 individuals/hour) around Alboran Island to the southeast (Rey et al. 2010). Abundance notably decreased both east and west of the area, for example, only a single individual was recorded near the Strait of Gibraltar (Rey et al. 2010). Mature females with egg capsules have been recorded in the area throughout the year suggesting that North Alboran may be important for reproduction (Rey et al. 2010).

Atlantic Sawtail Catshark has a relatively small geographic range and occurs primarily in the Iberian Coast Large Marine Ecosystem (LME) and marginally in the Canary Current LME and Mediterranean Sea LME.

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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												
Galeus atlanticus	Atlantic Sawtail Catshark	NT	328–790		X							

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Centrophorus uyato	Little Gulper Shark	EN
Dalatias licha	Kitefin Shark	VU
Etmopterus spinax	Velvet Belly Lanternshark	VU
Galeus melastomus	Blackmouth Catshark	LC
Heptranchias perlo	Sharpnose Sevengill Shark	NT
Scyliorhinus canicula	Smallspotted Catshark	LC
RAYS		
Leucoraja naevus	Cuckoo Skate	NT
Raja asterias	Starry Skate	LC
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.

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