

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

GULF OF CÁDIZ SLOPE ISRA

European Atlantic Region

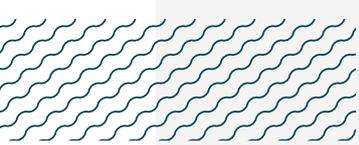
SUMMARY

Gulf of Cádiz Slope is located in the northeast Atlantic Ocean, offshore of Cádiz Province in Spain. The area encompasses part of the upper continental slope of the Iberian margin. It is characterised by a soft slope with fine sandy, silty, and muddy substrates. The area is influenced by the Mediterranean Outflow Water, creating a strong bottom current flowing towards the west and northwest above the North Atlantic Deep Water. The area overlaps with the Gulf of Cádiz Ecologically or Biologically Significant Marine Area. Within this area there are: **range-restricted species** (Atlantic Sawtail Catshark *Galeus atlanticus*) and **reproductive areas** (e.g., Blackmouth Catshark *Galeus melastomus*).

—	—
SPAIN	—
—	—
300-550 metres	—
—	—
554.0 km²	—
—	—

CRITERIA

Criterion B - Range Restricted; Sub-criterion C1 - Reproductive Areas





DESCRIPTION OF HABITAT

Gulf of Cádiz Slope is located in the northeast Atlantic Ocean, offshore of Cádiz Province, Spain. The area encompasses part of the upper continental slope of the Iberian margin. It is characterised by a soft slope with fine sands changing to silty and muddy contourite substrates in channels and submarine canyons (Delgado et al. 2013).

The area is influenced by the Mediterranean Outflow Water, which is relatively warm (12.5–14°C) and highly saline (36.2‰) creating a strong bottom current flowing towards the west and northwest above the North Atlantic Deep Water (Nelson et al. 1999; Delgado et al. 2013).

The area overlaps with the Gulf of Cádiz Ecologically or Biologically Significant Marine Area (EBSA; CBD 2025).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 300–550 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION B – RANGE RESTRICTED

This area holds the regular presence of the Atlantic Sawtail Catshark as a range-restricted species. Catch data were collected annually between 2000–2024 (except 2021) through surveys conducted from November–March, excluding January (García-Ruiz et al. 2015; ICES 2025). This species was regularly encountered during benthic trawl surveys in the Gulf of Cádiz, using a Baka trawler with a horizontal opening ~21 m and a vertical opening of 1.8 m during daytime 1-h hauls with a towing speed of three knots (García-Ruiz et al. 2015; ICES 2025). This area hosts the highest density of neonates and young-of-the-year Atlantic Sawtail Catshark captures in the Gulf of Cádiz (ICES 2025). Individuals were caught between 359–502 m depth. This species occurs primarily in the Iberian Coast Large Marine Ecosystem (LME) and marginally in the Canary Current and Mediterranean Sea LMEs.

SUB-CRITERION C₁ – REPRODUCTIVE AREAS

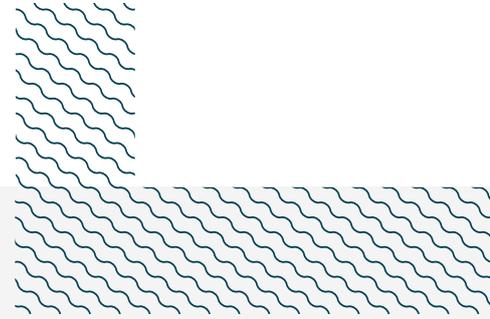
Gulf of Cádiz Slope is an important reproductive area for two shark species.

Neonate and young-of-the-year (YOY) Atlantic Sawtail Catshark and Blackmouth Catshark are regularly captured in this area. Between 2000–2024 (excluding 2021), benthic trawl surveys in the Gulf of Cádiz were conducted during daytime (García-Ruiz et al. 2015; ICES 2025). Surveys were conducted annually from November–March, excluding January (García-Ruiz et al. 2015; ICES 2025). Catch data were collected on the number of individuals, size (total length; TL), and sex.

Between 2000–2024, a total of 841 Atlantic Sawtail Catsharks were caught in the area (ICES 2025). Of these, 36% (n = 305) were neonates/YOY measuring 13–25 cm TL (ICES 2025). Size-at-birth for the species is ~15 cm TL, while size-at-maturity for the species ranges from 33–45 cm TL (Ebert et al. 2021), and although size-at-one year is not known for this species, the related Blackmouth Catshark is up to ~23 cm TL for YOY (Baptista et al. 2010), suggesting these were neonates and YOY. Individuals in this size range were observed in 18 of the 23 years surveyed, and during contemporary years, numbers were: 2011 (n = 24), 2012 (n = 1), 2013 (n = 14), 2015 (n = 31), 2016 (n = 21), 2017 (n = 20), 2018 (n = 1), 2019 (n = 27), 2020 (n = 52), 2022 (n = 15), 2023 (n = 26), and 2024 (n = 24) (ICES 2025). The surveys in this area were not year-round, so additional temporal data are required to confirm seasonality in reproductive behaviour (ICES 2025). Individuals were caught between 359–502 m

depth. Although there are records of neonate/YOY Atlantic Sawtail Catshark in the rest of the Gulf of Cádiz, this area has the highest known catch records of the species at this life history stage in the south Atlantic region of Spain.

Between 2000–2024, a total of 3,142 Blackmouth Catsharks were caught in the area (ICES 2025). Of these, 58% (n = 1,821) were neonates/YOY measuring 10–25 cm TL (ICES 2025). Size-at-maturity for the species ranges from 33–45 cm TL (Ebert et al. 2021), and size-at-birth is estimated at 8.5 cm TL, attaining up to ~23 cm TL for YOY (Baptista et al. 2010), suggesting these were neonates and YOY. Individuals in this size range were observed during all surveyed years, and during contemporary years, numbers were: 2010 (n = 33), 2011 (n = 112), 2012 (n = 25), 2013 (n = 74), 2014 (n = 89), 2015 (n = 92), 2016 (n = 138), 2017 (n = 125), 2018 (n = 71), 2019 (n = 94), 2020 (n = 143), 2022 (n = 107), 2023 (n = 106), and 2024 (n = 140) (ICES 2025). The surveys in this area were not year-round so additional temporal data are required to confirm seasonality in reproductive behaviour (ICES 2025). Individuals were caught between 311–502 m depth. Although there are records of neonate/YOY Blackmouth Catshark in the rest of the Gulf of Cádiz, this area has the highest known catch records of the species at this life history stage in the south Atlantic region of Spain.



Acknowledgments

Ángel Rafael Domínguez Bustos (Facultad de Ciencias del Mar y Ambientales, Campus Río San Pedro, Universidad de Cádiz), Carlos Rodríguez García (Facultad de Ciencias del Mar y Ambientales, Campus Río San Pedro, Universidad de Cádiz; Instituto Universitario de Investigación Marina, Campus de Excelencia Internacional del Mar), José Belquior Gonçalves Neto (Facultad de Ciencias del Mar y Ambientales, Campus Río San Pedro, Universidad de Cádiz; Marine Vertebrate Evolution and Conservation Lab - Evolve, Universidade Federal Do Ceará), Remedios Cabrera Castro (Facultad de Ciencias del Mar y Ambientales, Campus Río San Pedro, Universidad de Cádiz; Instituto Universitario de Investigación Marina, Campus de Excelencia Internacional del Mar), and Marta D Palacios (IUCN SSC Shark Specialist Group - ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2025 ISRA Region 02 - European Atlantic 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. 2025. Gulf of Cádiz Slope ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

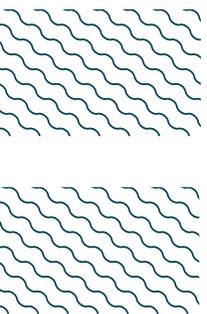
QUALIFYING SPECIES

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												
<i>Galeus atlanticus</i>	Atlantic Sawtail Catshark	NT	326-790		X	X						
<i>Galeus melastomus</i>	Blackmouth Catshark	LC	55-2,000			X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Etmopterus spinax</i>	Velvet Belly Lanternshark	VU
RAYS		
<i>Leucoraja naevus</i>	Cuckoo Skate	NT
<i>Raja clavata</i>	Thornback Skate	NT
CHIMAERAS		
<i>Chimaera monstrosa</i>	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.





REFERENCES

- Baptista M, Coelho R, Figueiredo I, Erzini K. 2010.** Determination of age and growth of *Galeus melastomus*, Rafinesque, 1810, a deepwater shark, using a modification to the cobalt nitrate technique. Portugal: ICES CM.
- Convention on Biological Diversity (CBD). 2025.** Gulf of Cádiz. Ecologically or Biologically Significant Areas (EBSAs). Available at: <https://chm.cbd.int/en/database/record?documentID=263481> Accessed May 2025.
- Delgado M, Rueda JL, Gil J, Burgos C, Sobrino I. 2013.** Spatial characterization of megabenthic epifauna of soft bottoms around mud volcanoes in the Gulf of Cádiz. *Journal of Natural History* 47: 1803-1831. <https://doi.org/10.1080/00222933.2013.770101>
- Ebert DA, Dando M, Fowler S. 2021.** *Sharks of the world: A complete guide*. Princeton: Princeton University Press.
- García-Ruiz C, Lloris D, Rueda JL, García-Martínez MC, Gil de Sola L. 2015.** Spatial distribution of ichthyofauna in the northern Alboran Sea (western Mediterranean). *Journal of Natural History* 49: 19-20. <https://doi.org/10.1080/00222933.2014.1001457>
- ICES. 2025.** ICES Database on Trawl Surveys (DATRAS). Copenhagen, Denmark: ICES. Available at: <https://datras.ices.dk> Accessed May 2025.
- Nelson CH, Baraza J, Maldonado A, Rodero J, Escutia C, Barber JH Jr. 1999.** Influence of the Atlantic inflow and Mediterranean outflow currents on late Quaternary sedimentary facies of the Gulf of Cadiz continental margin. *Marine Geology* 155: 99-129. [https://doi.org/10.1016/S0025-3227\(98\)00143-1](https://doi.org/10.1016/S0025-3227(98)00143-1)