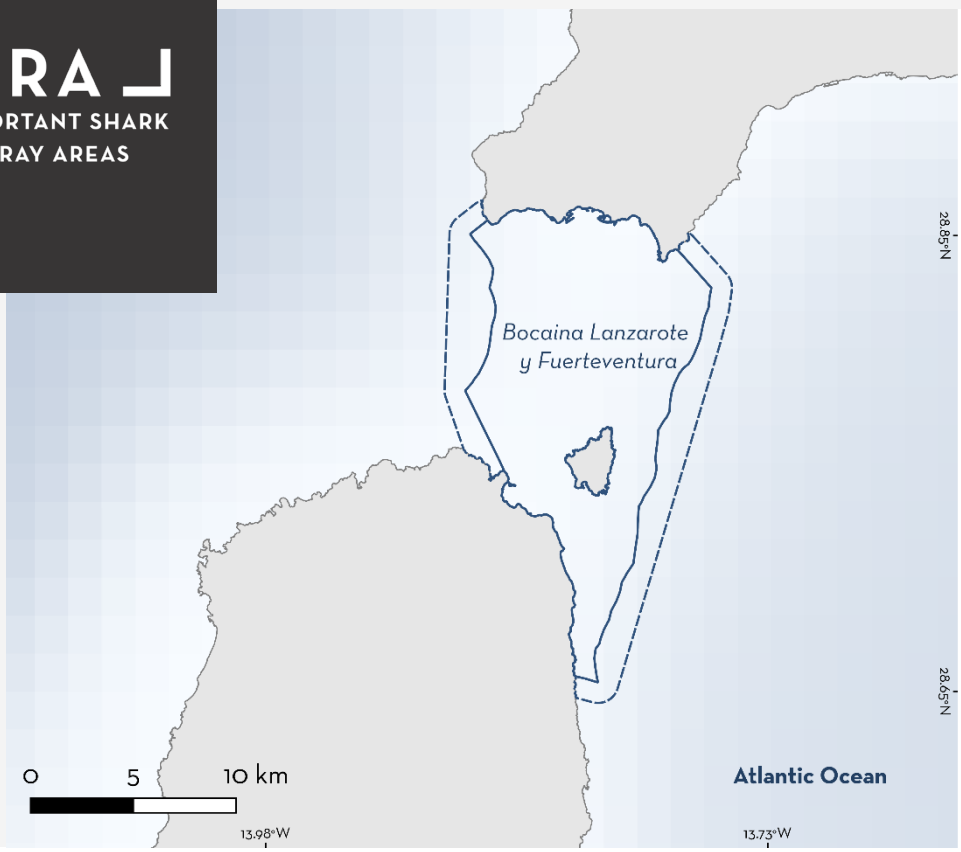
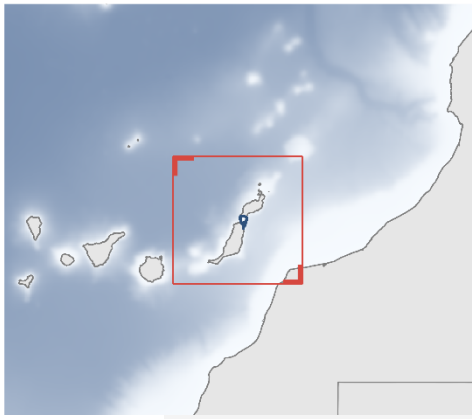
ISRA
IMPORTANT SHARK AND RAY AREAS





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

BOCAINA LANZAROTE Y FUERTEVENTURA ISRA

European Atlantic Region

SPAIN

0–150 metres

145.8 km²

SUMMARY

Bocaina Lanzarote y Fuerteventura is located between southern Lanzarote Island and northern Fuerteventura Island in the Canary Islands, Spain. The area is characterised by shallow coastal shelves with sandy and mixed-sediment substrates. The area overlaps with the Oceanic Islands and Seamounts of the Canary Region Ecologically or Biologically Significant Marine Area. Within this area there are: **threatened species** (e.g., Angelshark *Squatina squatina*); **reproductive areas** (Angelshark); and **undefined aggregations** (Common Smoothhound *Mustelus mustelus*).

CRITERIA

Criterion A – Vulnerability; Sub-criterion C1 – Reproductive Areas; Sub-criterion C5 – Undefined Aggregations

DESCRIPTION OF HABITAT

Bocaina Lanzarote y Fuerteventura is located between southern Lanzarote Island and northern Fuerteventura Island in the Canary Islands. The Canary Islands are a Spanish archipelago in the northeast Atlantic, consisting of eight main islands and five islets, situated ~100 km from the northwest African coastline. The area encompasses shallow insular platforms between the islands and the surrounding waters of Lobos Islet. It is characterised by a relatively narrow insular shelf that gently slopes from the shoreline to depths of ~30–40 m. The seabed composition is heterogeneous, with extensive areas of soft sediment habitats—such as fine to coarse sands and mixed sediments—interspersed with patches of low-relief rocky areas.

The area is strongly influenced by the Eastern Boundary Upwelling System, the Canary Current, and Calima events (Sahara Desert dust; Vázquez et al. 2024). The Azores High pressure system and trade winds drive complex patterns of seasonal upwelling, temperature fluctuation, and ocean stratification, leading to high productivity and nutrient richness along the west African continental shelf, which in turn influences environmental and biological conditions across the Canary Islands. The islands and waters to the furthest northeast of the Canary Islands have an oceanic desert climate, characterised by low rainfall and northerly prevailing winds (Vazquez et al. 2024).

The area overlaps with the Oceanic Islands and Seamounts of the Canary Region Ecologically or Biologically Significant Marine Area (EBSA; CBD 2025).

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (0 m) to 150 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A – VULNERABILITY

Two Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. These are the Critically Endangered Angelshark (Morey et al. 2019) and the Endangered Common Smoothhound (Jabado et al. 2021).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Bocaina Lanzarote y Fuerteventura is an important reproductive area for one shark species.

Neonate, young-of-the-year (YOY), and pregnant Angelsharks have been regularly recorded in the area (Jiménez-Alvarado et al. 2020; Angel Shark Project unpubl. data 2025). Since 2015, the Angel Shark Project has conducted a combination of underwater visual surveys (UVC), tagging, and citizen science data collection in the area. Visual transects and tagging surveys were conducted across the Canary Islands in high suitability areas (Meyers et al. 2017), potential nursery areas (Jiménez-Alvarado et al. 2020), and locations where Angelsharks are commonly observed. Within this area, 42 UVCs were conducted between 2015–2025. Of 67 sharks tagged in the area during UVCs, 43 (64%) were classified as neonates and six (9%) as YOY (Angel Shark Project unpubl. data 2025). These individuals were classified as neonate/YOY as their size (<40 cm TL) is close to their reported size-at-birth (26–30 cm total length [TL]; Ebert et al. 2021). Recaptures (n = 6) have revealed that neonates can stay in the area for over 12 months, demonstrating that, in addition to the regular presence of neonate and YOY individuals in the area, this species also uses the area for prolonged periods during early life stages (Jiménez-Alvarado et al. 2020; Angel Shark Project unpubl. data 2025). Of the 15

areas monitored in Lanzarote and Fuerteventura Islands for neonate/YOY presence, this area was identified as one of eight potential nursery areas for this species and ranks as the fourth highest number of juvenile sharks recorded from multiple sources (Jiménez-Alvarado et al. 2020).

In addition, three pregnant females were recorded in the area in 2019 (n = 1) and 2023 (n = 2) and one mating event was recorded in 2017 (Angel Shark Project unpubl. data 2025). Citizen science data reported by divers recorded 643 Angelsharks between 2017–2024. Most individuals observed were large adults. Sex was reported in 177 cases (27.5%), revealing 113 females and 64 males. Adult shark aggregations of 3–8 individuals were recorded over multiple years during the reported mating season in the boreal winter and spring (November–March) suggesting these aggregations may be related to reproductive process (Meyers et al. 2017; Mead et al. 2023).

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

Bocaina Lanzarote y Fuerteventura is an important area for undefined aggregations of one shark species.

Aggregations of Common Smoothhound have been regularly recorded in the area. Recreational anglers, spearfishers, divers, diver operators, scientists, and photographers (n = 142) across the Canary Islands were interviewed to explore the population structure of Common Smoothhounds across the archipelago (Espino et al. 2022). All respondents had >20 years of experience and provided records of Common Smoothhounds between 1980–2020. Between 2013–2019, local divers reported aggregations of between 6–25 individuals on eight different occasions, mostly in spring and summer (Espino et al. 2022). Most of the individuals in the aggregations were classified as adults as their size was larger than the reported size-at-maturity for the species (>80 cm TL; Ebert et al. 2021) and aggregations were observed in sandy and rocky substrates at depths of <3 m. According to the respondents, this was the only location in Fuerteventura and Lanzarote islands where aggregations of Common Smoothhound were regularly observed over multiple years (Espino et al. 2022). Additional information is needed to understand the nature and function of these aggregations.

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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												
Mustelus mustelus	Common Smoothhound	EN	0–800	X						X		
Squatina squatina	Angelshark	CR	0–150	X		X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Sphyrna zygaena	Smooth Hammerhead	VU
RAYS		
Aetomylaeus bovinus	Duckbill Eagle Ray	CR
Bathytoshia lata	Brown Stingray	VU
Dasyatis pastinaca	Common Stingray	VU
Gymnura altavela	Spiny Butterfly Ray	EN
Myliobatis aquila	Common Eagle Ray	CR
Rostroraja alba	White Skate	EN
Taeniurops grabatus	Round Fantail Stingray	NT
Torpedo marmorata	Marbled Torpedo Ray	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

Convention on Biological Diversity (CBD). 2025. Oceanic Islands and Seamounts of the Canary Region. Ecologically or Biologically Significant Areas (EBSAs). Available at https://chm.cbd.int/database/record?documentID=263484 Accessed May 2025.

Ebert DA, Dando M, Fowler S. 2021. *Sharks of the world: A complete guide*. Princeton: Princeton University Press.

Espino F, González JA, Bosch NE, Otero-Ferrer FJ, Haroun R, Tuya F. 2022. Distribution and population structure of the smooth-hound shark, *Mustelus mustelus* (Linnaeus, 1758), across an oceanic archipelago: Combining several data sources to promote conservation. *Ecology and Evolution* 12: e9098. https://doi.org/10.1002/ece3.9098

Jabado RW, Chartrain E, Cliff G, Da Silva C, De Bruyne G, Derrick D, Dia M, Diop M, Doherty P, El Vally Y et al. 2021. *Mustelus mustelus. The IUCN Red List of Threatened Species* 2021: e.T39358A124405881. https://dx.doi.org/10.2305/IUCN.UK.2021-2.RLTS.T39358A124405881.en

Jiménez-Alvarado D, Meyers EKM, Caro MB, Sealey MJ, Barker J. 2020. Investigation of juvenile angelshark (*Squatina squatina*) habitat in the Canary Islands with recommended measures for protection and management. *Aquatic Conservation: Marine and Freshwater Ecosystems* 30: 2019–2025. https://doi.org/10.1002/aqc.3337

Mead LR, Jiménez Alvarado D, Meyers E, Barker J, Sealey M, Caro MB, Toledo H, Pike C, Gollock M, Piper A, et al. 2023. Spatiotemporal distribution and sexual segregation in the Critically Endangered angelshark *Squatina squatina* in Spain's largest marine reserve. *Endangered Species Research* 51: 233–248. https://doi.org/10.3354/esr01255

Meyers EKM, Tuya F, Barker J, Jiménez-Alvarado D, Castro-Hernández JJ, Haroun R, Rödder D. 2017. Population structure, distribution and habitat use of the Critically Endangered angelshark, *Squatina squatina*, in the Canary Islands. *Aquatic Conservation: Marine and Freshwater Ecosystems* 27: 1133–1144. https://doi.org/10.1002/aqc.2769

Morey G, Barker J, Hood A, Gordon C, Bartolí A, Meyers EKM, Ellis J, Sharp R, Jiménez-Alvarado D, Pollom R. 2019. *Squatina squatina. The IUCN Red List of Threatened Species* 2019: e.T39332A117498371. https://dx.doi.org/10.2305/IUCN.UK.2019-1.RLTS.T39332A117498371.en

Vázquez R, Parras-Berrocal IM, Cabos W, Sein D, Mañanes R, Bolado-Penagos M, Izquierdo A. 2024. Climate change in the Canary/Iberia upwelling region: the role of ocean stratification and wind. *Environmental Research Letters* 19: 074064. https://doi.org/10.1088/1748-9326/ad5ab4