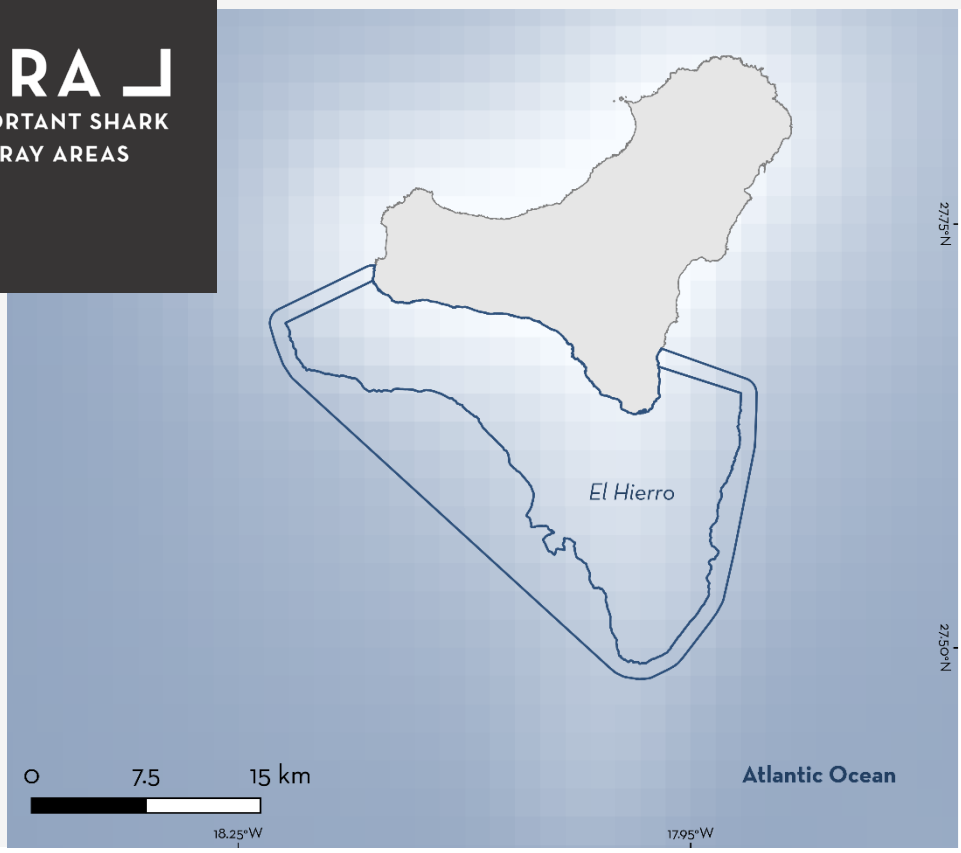
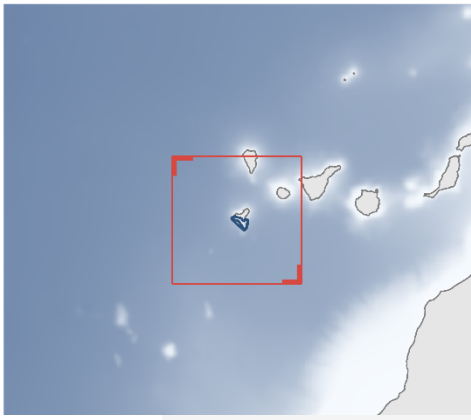
ISRA
IMPORTANT SHARK AND RAY AREAS





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

EL HIERRO ISRA

European Atlantic Region

SPAIN

0–1,900 metres

289.0 km²

SUMMARY

El Hierro is located off the southern coast of El Hierro Island, Canary Islands, Spain. It encompasses the Mar de las Calmas, El Bajón Seamount, and the southern coastline of El Hierro Island. The area is characterised by a narrow coastal platform followed by a steep slope with lava-formed reefs, basaltic terraces, rocky pinnacles, sandy patches, and vertical walls. It is influenced by the Canary Current and the coastal upwelling system off northwest Africa. The area overlaps with the Oceanic Islands and Seamounts of the Canary Region Ecologically or Biologically Significant Marine Area, and the Western coast of El Hierro Key Biodiversity Area. Within this area there are: **threatened species** (e.g., Duckbill Eagle Ray *Aetomylaeus bovinus*); **reproductive areas** (e.g., Smalltooth Sand Tiger *Odontaspis ferox*); **undefined aggregations** (Sicklefin Devil Ray *Mobula tarapacana*); and the area sustains a **high diversity** of sharks (13 species).

CRITERIA

Criterion A – Vulnerability; Sub-criterion C1 – Reproductive Areas; Sub-criterion C5 – Undefined Aggregations; Sub-criterion D2 – Diversity

DESCRIPTION OF HABITAT

El Hierro is located off the southern coast of El Hierro Island, Canary Islands, Spain. It encompasses the Mar de las Calmas, El Bajón seamount, and the southern coastline of El Hierro Island. The area is characterised by a narrow coastal platform followed by a steep slope, with lava-formed reefs, basaltic terraces, rocky pinnacles, sandy patches, and vertical walls (A Rodríguez-Juncá pers. obs. 2025).

This area is influenced by the Canary Current and the coastal upwelling system off northwest Africa, which inject cold, nutrient-rich waters seasonally, promoting elevated primary productivity, especially from boreal spring to autumn (Gómez-Letona et al. 2017). Additionally, dynamic oceanographic processes such as internal waves, thermocline shifts, and local turbulence influence prey availability and productivity, particularly along the slope (Fraile-Nuez et al. 2023).

This area overlaps with the Oceanic Islands and Seamounts of the Canary Region Ecologically or Biologically Significant Marine Area (EBSA; CBD 2025) and the Western coast of El Hierro Key Biodiversity Area (KBA; KBA 2025). It also overlaps with the Mar de Las Calmas Special Conservation Zone (ZEC) through the Natura 2000 network.

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (0 m) to 1,900 m based on the bathymetry and the depth range of Qualifying Species in the area.

ISRA CRITERIA

CRITERION A – VULNERABILITY

Thirteen Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. Threatened sharks comprise two Critically Endangered species and two Endangered species; threatened rays comprise two Critically Endangered species, four Endangered species, and three Vulnerable species (IUCN 2025).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

El Hierro is an important reproductive area for one shark and one ray species.

Between 2005–2019, at least 18 sightings of adult female Smalltooth Sand Tiger (based on visually estimated total length [TL]) were documented by citizen scientists and videographers while scuba or freediving in the area between May–November (Barría et al. 2018; RedPROMAR Gobierno de Canarias 2025; A Furundarena & F Ravina pers. obs. 2025). Among these, four individuals observed between 2005–2016 were estimated to measure between 300–400 cm TL and all displayed distended abdomens (likely indicating pregnancy) (Barría et al. 2018). Female size-at-maturity for the species is 300–350 cm TL (Ebert et al. 2021). Additionally, at least three adult females bearing fresh mating scars were observed in 2018 and 2019 (RedPROMAR Gobierno de Canarias 2025; F Ravina pers. obs. 2025). In 2019, two adult females were observed swimming together, one with a distended abdomen and the other with fresh mating scars (F Ravina pers. obs. 2025). A resighting with photo-identification (based on distinctive features on the pectoral and dorsal fins) of one adult female in 2005, 2010, and 2016 indicate site fidelity to the area (Barría et al. 2018). This shark species is rarely encountered as it is normally found in deeper waters (>300 m) with few mature females recorded

worldwide (Pollard et al. 2015). However, El Hierro is one of the few locations globally where mature females have been regularly observed at shallow depths, ranging from the surface to ~20 m.

Between 2010–2024, citizen science and social media observations while scuba or free diving were collected across the Canary Islands (n = 403 *Mobula* spp. sightings with audiovisual material), with a total of 181 sightings of Sicklefin Devil Ray in the area (45% of the total sightings) (A Rodríguez-Juncá unpubl. data 2025). When possible, individuals were photo-identified and sexed, although sex was not recorded for all sightings. Between 2012–2022, a total of 29 individuals were photo-identified, with 13 sightings of 16 different pregnant individuals (64% of the females identified in the area), inferred by distended abdomens (A Rodríguez-Juncá unpubl. data 2025). Pregnant females were recorded in 2012–2022, between the months of May–November (A Rodríguez-Juncá unpubl. data 2025). Additionally, 11 females with healed mating scars were recorded in the area between 2017–2024, during May–September (A Rodríguez-Juncá unpubl. data 2025).

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

El Hierro is an important area for undefined aggregations of one ray species.

Between 2010–2024, citizen science and social media observations while scuba or freediving were collected across the Canary Islands (n = 403 *Mobula spp*. sightings with audiovisual material), with a total of 181 sightings of Sicklefin Devil Ray in the area (45% of the total sightings) (A Rodríguez-Juncá unpubl. data 2025). Between 2016–2024, a total of 33 aggregations with 3–53 individuals (mean = 14) were recorded in the area (A Rodríguez-Juncá unpubl. data 2025). Aggregations were seasonal, with observations between May–October (A Rodríguez-Juncá unpubl. data 2025). Globally, large aggregations for this species are rare and have only been observed at a few other locations in the world such as the Azores Archipelago off the coast of Portugal (Sobral & Afonso 2014) and the São Pedro and São Paulo Archipelago off Brazil (Mendonça et al. 2018). Photo-identification data also confirmed six of the 29 Sicklefin Devil Ray photo-identified resighted over periods ranging from one month to three years, indicating potential site fidelity and consistent use of the area (A Rodríguez-Juncá unpubl. data 2025). Further information is required to confirm the nature and function of these aggregations.

SUB-CRITERION D2 – DIVERSITY

El Hierro sustains a high diversity of Qualifying Species (13 species). This meets the regional diversity threshold (13 species) for the European Atlantic region. The regular presence of Qualifying Species has been documented between 2011–2024 by frequent observations in diving operations, visual census by scientists (A Rodríguez-Juncá unpubl. data 2025), citizen science while scuba or freediving (Espino et al. 2022; RedPROMAR Gobierno de Canarias 2025), and interviews with fishers (Rodríguez-Juncá et al. 2023). All Qualifying Species were recorded by citizen scientists and supported with photographic evidence (RedPROMAR Gobierno de Canarias, 2025) over a period of at least two years between 2011–2024, except for the Common Smoothhound, which was confirmed in the area by recreational fishers, diving guides, and marine scientists (Espino et al. 2022). Additionally, interviews with fishers (n = 12) were conducted at La Restinga (local village within the area) based on their observations and fishing experience in the area, reporting the regular and predictable presence of Smalltooth Sand Tiger, Angelshark, Duckbill Eagle Ray, Spiny Butterfly Ray, Common Eagle Ray, Oceanic Manta Ray, Sicklefin Devil Ray, and Marbled Torpedo Ray (Rodríguez-Juncá et al. 2023).

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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	5–800	X								X
Odontaspis ferox	Smalltooth Sand Tiger	EN	10–1,015	X		X						
Sphyrna lewini	Scalloped Hammerhead	CR	0–1,043	X								
Squatina squatina	Angelshark	CR	0–150	X								
RAYS												
Aetomylaeus bovinus	Duckbill Eagle Ray	CR	0–150	X								X
Bathytoshia lata	Brown Stingray	VU	0–800	X								
Dasyatis pastinaca	Common Stingray	VU	0–200	X								
Gymnura altavela	Spiny Butterfly Ray	EN	0–150	X								
Mobula birostris	Oceanic Manta Ray	EN	0–1,246	X								
Mobula tarapacana	Sicklefin Devil Ray	EN	0–1,896	X		X				X		
Mobula thurstoni	Bentfin Devil Ray	EN	0–100	X								
Myliobatis aquila	Common Eagle Ray	CR	0–537	X								
Torpedo marmorata	Marbled Torpedo Ray	VU	0–370	X								

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Heptranchias perlo	Sharpnose Sevengill Shark	NT
Hexanchus griseus	Bluntnose Sixgill Shark	NT
Prionace glauca	Blue Shark	NT

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 El Hierro is a potential reproductive area for one shark species.

Between 2014–2025, a combination of underwater visual surveys, visual identification tagging, and citizen science data collection has been conducted in the area for Angelsharks (Angel Shark Project unpubl. data 2025). 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. Angelsharks were reported in the area (n = 12 observations) in 2021 (n = 5), 2022 (n = 2), 2023 (n= 2), and 2024 (n = 2). Of these observations, two were from mating events during 2021 and 2022, with one pregnant female (inferred from the distended abdominal cavity) recorded in 2021 (Angel Shark Project unpubl. data 2025). This area is one of the two areas within the island of El Hierro with regular sightings of the species. Due to habitat features with abyssal depths between islands, Angelshark populations in the Canary Islands have limited connectivity (Meyers et al. 2025). The populations surrounding El Hierro appear to be isolated, and as such, this area may be the most important area for Angelsharks around the entire island. Further information is required to determine the importance of the area for the reproduction of the species.

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