

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

EBRO DELTA ISRA

Mediterranean and Black Seas Region

SUMMARY

Ebro Delta is located on the Catalan coast of Spain and is influenced by the Ebro River delta. The continental shelf is wide and heterogeneous including prodeltaic structures. This area has high levels of primary production due to the presence of upwellings and river output. The area is adjacent to the Delta del Ebro National Park and belongs to the Natura 2000 network as a Special Protection Area. It also overlaps with a Key Biodiversity Area and an Ecologically or Biologically Significant Marine Area. Within this area there are: **range-restricted species** (Starry Skate *Raja asterias*) and **reproductive areas** (e.g., Smallspotted Catshark *Scyliorhinus canicula*).

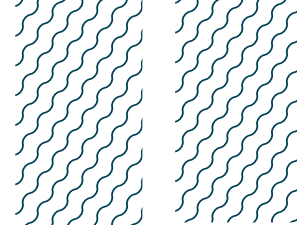
CRITERIA

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

—	—
SPAIN	—
—	—
20-200 metres	—
—	—
8,788.9 km²	—
—	—



DESCRIPTION OF HABITAT



Ebro Delta encompasses the area of influence of the Ebro River delta on the Catalan coast of Spain, northwest Mediterranean Sea. The continental shelf is wide (up to 50 km from the coast) and heterogeneous including prodeltaic structures (CBD 2023). This area has high levels of primary production due to the presence of upwellings by the Liguro-Proveçal-Catalan current along the continental slope and river outputs, mainly from the Ebro River delta (Estrada 1996).

This area is adjacent to the Delta del Ebro National Park which belongs to the Natura 2000 network as a Special Protection Area under the Birds Directive and Sites of Community Importance under the Habitats Directive (ES0000020-Delta de l'Ebre). This area is within an Ecologically or Biologically Significant Marine Area (EBSA), the North-western Mediterranean Benthic Ecosystems EBSA (CBD 2023), and a Key Biodiversity Area (KBA), the Plataforma Marina del Delta del Ebro - Columbretes KBA (KBA 2023).

This Important Shark and Ray Area is benthic and is delineated from 20 to 200 m based on the bathymetry of the area and the distribution of Qualifying Species in the area.

ISRA CRITERIA

CRITERION B - RANGE RESTRICTED

This area holds the regular presence of the Starry Skate as a resident range-restricted species. This species occurs year-round in the area and is regularly caught as bycatch in the commercial hake trawl fishery and small-scale fisheries (Ruiz-García et al. 2023). In the Catalonia region, where this area is located, the most commonly caught ray is the Starry Skate (Barría & Colmenero 2019; C. Barría & A.I. Colmenero unpubl. data 2023). Furthermore, along the north and central eastern coast of Spain, the highest density of Starry Skate egg cases is located in this area (Ceballos 2023; D. Ruiz-García et al. unpubl. data 2023). Starry Skate is distributed primarily in the Mediterranean Sea Large Marine Ecosystem (LME) and only very marginally in the Canary Current LME and Iberian Coastal LME.

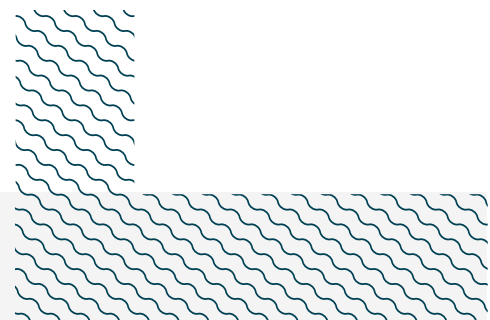
SUB-CRITERION C₁ - REPRODUCTIVE AREAS

Ebro Delta is an important reproductive area one shark and one ray species.

From May 2020 to February 2022, the benthic trawl fishery operating in the area was monitored and egg cases of oviparous sharks documented (Ceballos 2023; D. Ruiz-García et al. unpubl. data 2023). In this area, an average abundance of 234 egg cases/km² were obtained for the Smallspotted Catshark with a maximum of 1,469 egg cases/km² (Ceballos 2023; D. Ruiz-García et al. unpubl. data 2023). Along the north and central eastern coast of Spain, the highest density of egg cases for the Smallspotted Catshark is located in this area (Ceballos 2023; D. Ruiz-García et al. unpubl. data 2023).

Egg cases of *Raja* spp. (Starry Skate, Speckled Skate, Thornback Skate), in which more than 90% of these corresponded to the Starry Skate, represented an average abundance of 207 egg cases/km² with a maximum of 934 egg cases/km² (Ceballos 2023; D. Ruiz-García et al. unpubl. data 2023). Along the north and central eastern coast of Spain, the highest density of egg cases for the Starry Skate was located in this area (Ceballos 2023; D. Ruiz-García et al. unpubl. data 2023).

The highest egg case abundance for both Smallspotted Catshark and Starry Skate were located at ~100 m depth (Ceballos 2023; D. Ruiz-García et al. unpubl. data 2023). Morphological identification keys were used to identify egg cases to species (Porcu et al. 2017; Mancusi et al. 2021).



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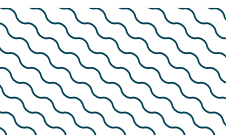
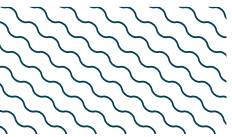
QUALIFYING SPECIES

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
SHARKS											
<i>Scyliorhinus canicula</i>	Smallspotted Catshark	LC	0-800			X					
RAYS											
<i>Raja asterias</i>	Starry Skate	NT	0-700		X	X					

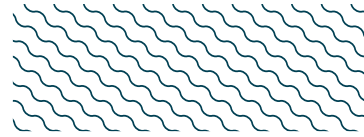
SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
RAYS		
<i>Raja clavata</i>	Thornback Skate	NT
<i>Raja polystigma</i>	Speckled Skate	LC
<i>Torpedo torpedo</i>	Ocellate Torpedo	VU

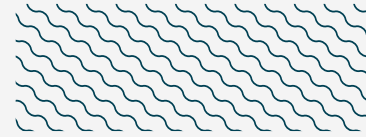
IUCN Red List of Threatened Species Categories are available by searching species names at www.iucnredlist.org Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.



SUPPORTING INFORMATION



There are additional indications that Ebro Delta is an important feeding area for the Smallspotted Catshark and the Starry Skate. Stomach content and stable isotope analysis have been used to describe the diet of these species. These techniques indicated that the diet of the Starry Skate (n = 67; 97% of stomachs contained food items) and Smallspotted Catshark (n = 20; 90% of stomachs contained food items) was composed mainly of crustaceans (Barría et al. 2015, 2018). Updated information on these species is needed to demonstrate the importance of the area for feeding.



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