

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

ROSES ISRA

Mediterranean and Black Seas Region

SUMMARY

Roses is located in the Gulf of Roses, northern Spain, in the northwest Mediterranean Sea. The presence of the Liguro-Provençal-Catalan Current, combined with the boreal winter disruption of the thermocline, and discharge from nearby rivers makes this area highly productive. This area is located on the continental shelf on muddy substrates. It overlaps with a marine protected area designated by local fishers in 2014, a Key Biodiversity Area, and an Ecologically or Biologically Significant Marine Area. Within this area there are: **range-restricted species** and **feeding areas** (Speckled Skate *Raja polystigma*).

CRITERIA

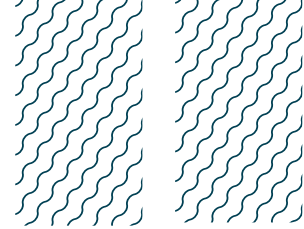
Criterion B - Range Restricted; Sub-criterion C2 - Feeding Areas

— SPAIN —

— 120-150 metres —

— 71.64 km² —





DESCRIPTION OF HABITAT

Roses is located in the Gulf of Roses, northern Spain, in the northwest Mediterranean Sea. In this area, the Liguro-Provençal-Catalan Current flows south-westwards along the continental slope (Estrada 1996). This, combined with winter disruptions of the thermocline and discharge from nearby rivers, results in a large input of nutrients, enhancing marine productivity (Salat 1995; Estrada 1996). This area is located on the continental shelf on muddy substrates (Abelló et al. 1988).

In 2013, fishers from Roses Port unilaterally decided to establish a no-take marine reserve in this area to protect the recruitment of European Hake *Merluccius merluccius* (Fagín 2015). Since February 2014, this area has remained permanently closed to fishing activity (i.e., benthic trawling, longlines, and gillnets) under the surveillance of the Roses Fishermen Association. This zone used to be a fishing ground with these fishing gears targeting European Hake (Sala-Coromina et al. 2021).

This area is within the North-western Mediterranean Benthic Ecosystems Ecologically or Biologically Significant Marine Area (EBSA; CBD 2023) and partially overlaps with the Mar del Empordà Key Biodiversity Area (KBA 2023).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 120 to 150 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION B – RANGE RESTRICTED

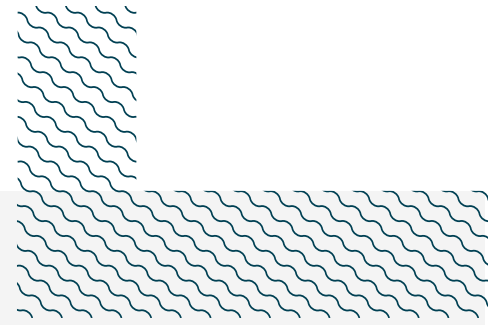
This area holds the regular presence of Speckled Skate as a resident range-restricted species. This species occurs year-round in the area and was regularly encountered and caught in experimental monitoring surveys in trawl fisheries between 2015–2018 (Fagín 2015; Balcells-Surroca 2016; Coll-Calvo et al. 2020). Two studies conducted a comparative assessment between this area and surrounding areas to evaluate changes in population density, biomass, and diversity of the fish community (Fagín 2015; Balcells-Surroca 2016). Results indicate that the Speckled Skate was only present in this area. The Speckled Skate is found only in the Mediterranean Sea Large Marine Ecosystem, with its occurrence highest in the western part of the sea (Ungaro et al. 2015).

SUB-CRITERION C₂ – FEEDING AREAS

The area is an important feeding area for one ray species.

Roses is considered a productive area within a mostly oligotrophic region. Two complementary techniques, stomach content and stable isotope analysis, have been used to describe the diet of Speckled Skate (Coll-Calvo et al. 2020). Both approaches indicated that its diet is primarily composed of decapod crustaceans, which had a 97% Index of Relative Importance (IRI) in the stomach contents analysis. Of the 47 stomachs sampled, 100% contained food items (Coll-Calvo et al. 2020). The main crustacean taxa found in stomach contents (Coll-Calvo et al. 2020) inhabit soft substrates also occupied by the Speckled Skate and are notably abundant in the Catalan Sea (Abelló et al. 1988) where this species occurs (Fagín 2015; Balcells-Surroca 2016). Decapod crustaceans were more abundant (numbers and biomass) inside this area than outside (Balcells-Surroca 2016).





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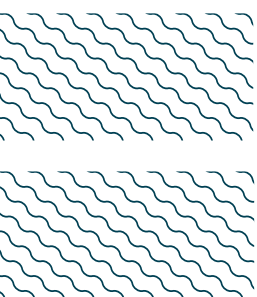
QUALIFYING SPECIES

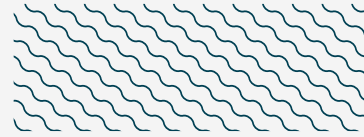
Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met							
				A	B	C1	C2	C3	C4	C5	D1
RAYS											
<i>Raja polystigma</i>	Speckled Skate	LC	20-633		X		X				

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Scyliorhinus canicula</i>	Smallspotted Catshark	LC
RAYS		
<i>Raja asterias</i>	Starry Skate	NT
<i>Raja clavata</i>	Thornback Skate	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.





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