



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

## BELLE-ÎLE & LOIRE ESTUARY ISRA

### European Atlantic Region

#### SUMMARY

Belle-Île & Loire Estuary is located in the Bay of Biscay in the west of France. This coastal and continental shelf area is split into a western section between Belle Île and the mainland and an eastern section off the Loire and Vilaine estuaries. The habitat is characterised mainly by rock, boulder, and gravel substrates, with some soft sediments near the estuary outflows. It is influenced by freshwater and sediment input from the estuaries, as well as by tidal currents. Within this area there are: **threatened species** and **reproductive areas** (Marbled Torpedo Ray *Torpedo marmorata*).

#### CRITERIA

##### Criterion A - Vulnerability; Sub-criterion C1 - Reproductive Areas

FRANCE

0-80 metres

1,276.0 km<sup>2</sup>





## DESCRIPTION OF HABITAT

Belle-Île & Loire Estuary is located in the Bay of Biscay of western France. This split area encompasses continental shelf waters in the western section from Lorient to Belle Île and in the eastern section off the Loire and Vilaine estuaries but excludes the Bay of Quiberon and the Quiberon Peninsula. The habitat is characterised mainly by rock, boulder, and gravel substrates, with some sand and mud substrates near the estuary outflows (Garlan & Marchès 2010). The area is influenced by freshwater and sediment input from two large estuaries: the Loire and Vilaine estuaries. It is also influenced by semi-diurnal tides leading to tidal currents (Le Cann 1990).

This Important Shark and Ray Area is benthic and is delineated from inshore and surface waters (0 m) to 80 m based on the bathymetry of the area.

## ISRA CRITERIA

### CRITERION A – VULNERABILITY

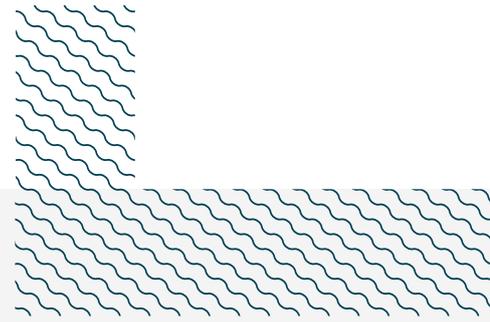
One Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occurs in the area. This is the Vulnerable Marbled Torpedo Ray (Finucci et al. 2021).

### SUB-CRITERION C<sub>1</sub> – REPRODUCTIVE AREAS

Belle-Île & Loire Estuary is an important reproductive area for one ray species.

Between 2010–2021, Marbled Torpedo Ray neonates and young-of-the-year (YOY) were regularly captured in this area based on data from the French fisheries on-board observer program (ObsMer; IFREMER SIH 2022) and from the International Council for the Exploration of the Sea (ICES) database on scientific trawls surveys (ICES 2025). These studies and observations cover a wide area, and sampling effort was considered in the analysis because of the heterogeneity of the number of fishing operations sampled. For fisheries-dependent data (i.e., ObsMer), only data from fishing gear suitable for catching neonates and YOY were used (i.e., defined as gear types that captured at least one neonate/YOY; primarily benthic trawls and trammel nets).

Marbled Torpedo Ray neonates and YOY were defined as being <17 cm total length (TL), considering a maximum size-at-birth of 14 cm TL for the species and a slow growth coefficient of 0.175 (Ebert & Dando 2021; Bellodi et al. 2024). Neonates and YOY were captured in 9 of the 12 years (2010–2021) within this area. Belle-Île & Loire Estuary was the clear regional hotspot for captures of neonates and YOY when standardised for survey effort. A total of 30 of the 177 neonate and YOY recorded in the survey were captured in this area, representing ~17% of all the occurrences within a large survey region spanning from northern Spain to northeastern France (IFREMER SIH 2022; ICES 2025). This is the main hotspot for neonates and YOY, with one other hotspot at Île de Ré – Pertuis, highlighting the importance of this area for early life stages of the species.



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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
RAYS												
<i>Torpedo marmorata</i>	Marbled Torpedo Ray	VU	0-1,480	X		X						

## SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
<b>SHARKS</b>		
<i>Cetorhinus maximus</i>	Basking Shark	EN
<i>Mustelus asterias</i>	Starry Smoothhound	NT
<i>Scyliorhinus canicula</i>	Smallspotted Catshark	LC
<i>Scyliorhinus stellaris</i>	Nursehound	VU
<b>RAYS</b>		
<i>Dasyatis pastinaca</i>	Common Stingray	VU
<i>Raja brachyura</i>	Blonde Skate	NT
<i>Raja clavata</i>	Thornback Skate	NT
<i>Raja microocellata</i>	Small-eyed Skate	NT
<i>Raja montagui</i>	Spotted Skate	LC
<i>Raja undulata</i>	Undulate Skate	NT

*IUCN Red List of Threatened Species Categories are available by searching species names at [www.iucnredlist.org](http://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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