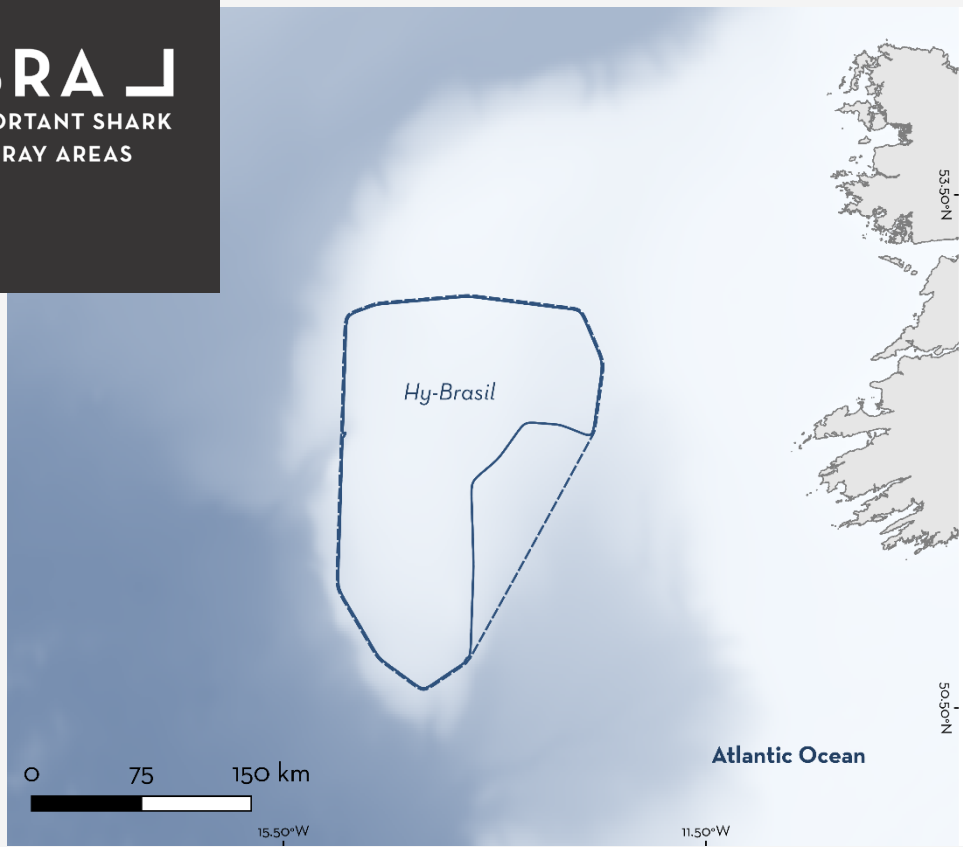
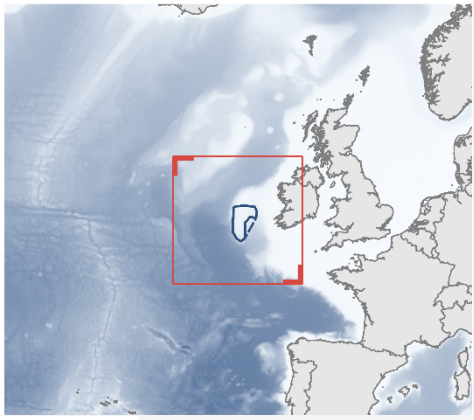
ISRA
IMPORTANT SHARK AND RAY AREAS





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

HY-BRASIL ISRA

European Atlantic Region

IRELAND

191–1,109 metres

26,642 km²

SUMMARY

Hy-Brasil is located on the Irish continental shelf, ~200 kilometres west of Ireland. The area is characterised by seamounts and two large canyons and a diverse benthos. It is influenced by current circulation patterns, causing the accumulation of nutrient rich waters. The north of the area is dominated by hard ground, with small areas of soft sediment, while the southern part has soft sediment with occasional boulders and pebbles. Within this area there are: **reproductive areas** (e.g., Bluntnose Sixgill Shark *Hexanchus griseus*).

CRITERIA

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

DESCRIPTION OF HABITAT

Hy-Brasil is a raised area on the Irish continental shelf, ~200 km west of Ireland. It lies at the continental margin of the Northeast Atlantic and it slopes into the Rockall Trough to the west and Porcupine Seabight to the east. A large canyon runs through the area in a northeast-southwest direction, with depth ranging from ~500 m to >2,500 m. A second canyon occurs in the south of the area with depths >2,000 m. The area is characterised by seamounts midway long the main channel (NPWS 2024a). The benthos is characterised by black, soft and gorgonian corals, as well as sponges (including encrusting forms), desmospongia, and glass sponges (NPWS 2024b). The substrate in the north of Hy-Brasil is dominated by hard ground, with small areas of soft sediment. The southern part of the area has soft sediment with occasional boulders and pebbles. Throughout the bank there are terraces, cliffs, overhangs, and boulders (NPWS 2024a).

Current circulation patterns around the Irish margin cause the accumulation of nutrient rich waters on the tops of banks, providing enriched food sources to the canyons and carbonate mounds occurring at the bank.

This Important Shark and Ray Area is pelagic and subsurface and is delineated from 191–1,109 m based on the bathymetry of the area.

ISRA CRITERIA

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Hy-Brasil is an important reproductive area for two shark species.

Data were obtained from the Database of Trawl Surveys (DATRAS; ICES 2025). These surveys are conducted annually as part of an internationally coordinated bottom trawl survey programme.

Between 2010–2024, 583 neonate Blackmouth Catsharks were recorded from these trawl surveys (ICES 2025). The size-at-birth for Blackmouth Catsharks is unknown, but these individuals measured <17 cm total length (TL), which is similar to the size-at-birth for congeners (Broadfin Sawtail Catshark *Galeus nipponensis*, 13 cm TL; Gecko Catshark *G. eastmani*, <17 cm TL; Atlantic Sawtail Catshark *G. atlanticus*, 15 cm TL; Ebert et al. 2021). These neonates were found in the area every year from 2010–2024 (2010: n = 23; 2011: n = 27; 2012: n = 30; 2013: n = 56; 2014: n = 87; 2015: n = 91; 2016: n = 72; 2017: n = 32; 2018: n = 48; 2019: n = 23; 2020: n = 7; 2021: n = 30; 2022: n = 21; 2023: n = 20; and 2024: n = 16). These data were collected from standardised surveys which are conducted annually in September and October. Additional temporal data are required to confirm seasonality of the reproductive use of this area by this species. Further, in July 2021, the Marine Institute of Ireland's SeaRover survey deployed a remotely operated vehicle (ROV) and captured footage of thousands of live Blackmouth Catshark egg cases within the area (Marine Institute 2022) highlighting the use of this area by pregnant females.

Overall, 175 Bluntnose Sixgill Sharks were recorded within the area (ICES 2025). The vast majority (90%; n = 156) of them are estimated to be neonate/young-of-the-year (YOY) measuring <130 cm TL (size-at-birth of this species is estimated 61–74 cm TL; size-at-maturity is estimated at 310–330 cm TL for males and 400 cm TL for females; Ebert et al. 2021). Of these, 45 (28.8%) could be classed as neonates measuring <74 cm TL. Neonate/YOY Bluntnose Sixgill Sharks were recorded within this area every year from 2010–2024 (ICES 2025). In 8 of the 15 years in which Bluntnose Sixgill Sharks were captured in this area, all individuals were YOY/neonate (2010: n = 7; 2012: n = 13; 2013: n = 21; 2015: n = 6; 2018: n = 5; 2019: n = 13; 2020: n = 8; and 2021: n = 1). In the remaining 7 years in which Bluntnose Sixgill Sharks were captured in this area, the large majority of individuals captured were

either YOY or neonate (2011: n = 9 out of 10; 2014: n = 8 out of 11; 2016: n = 14 out of 17; 2017: n = 6 out of 7; 2022: n = 4 out of 8; 2023: n = 8 out of 12; and 2024: n = 9 out of 15).

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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												
Galeus melastomus	Blackmouth Catshark	LC	55–2,000			X						
Hexanchus griseus	Bluntnose Sixgill Shark	NT	0–2,490			X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Centroscyllium fabricii	Black Dogfish	LC
Centroscymnus coelolepis	Portuguese Dogfish	CR*
Centroselachus crepidater	Longnose Velvet Dogfish	VU*
Dalatias licha	Kitefin Shark	VU
Deania calceus	Birdbeak Dogfish	NT
Deania profundorum	Arrowhead Dogfish	NT
Etmopterus princeps	Great Lanternshark	LC
Etmopterus spinax	Velvet Belly Lanternshark	VU
Galeorhinus galeus	Tope	CR
Galeus atlanticus	Atlantic Sawtail Catshark	NT
Mustelus mustelus	Common Smoothhound	EN
Scyliorhinus stellaris	Nursehound	VU
Squalus acanthias	Spiny Dogfish	VU
RAYS		
Dipturus batis	Common Blue Skate	CR
Dipturus intermedius	Flapper Skate	CR
Dipturus nidarosiensis	Norwegian Skate	EN
Dipturus oxyrinchus	Longnosed Skate	VU
Leucoraja circularis	Sandy Skate	EN
Leucoraja naevus	Cuckoo Skate	VU*
Neoraja caerulea	Blue Pygmy Skate	LC
Raja clavata	Thornback Skate	NT
Raja montagui	Spotted Skate	LC
CHIMAERAS		
Chimaera monstrosa	Rabbitfish	VU
Chimaera opalescens	Opal Chimaera	LC

*Species threatened according to the Irish Red List of Threatened Species

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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