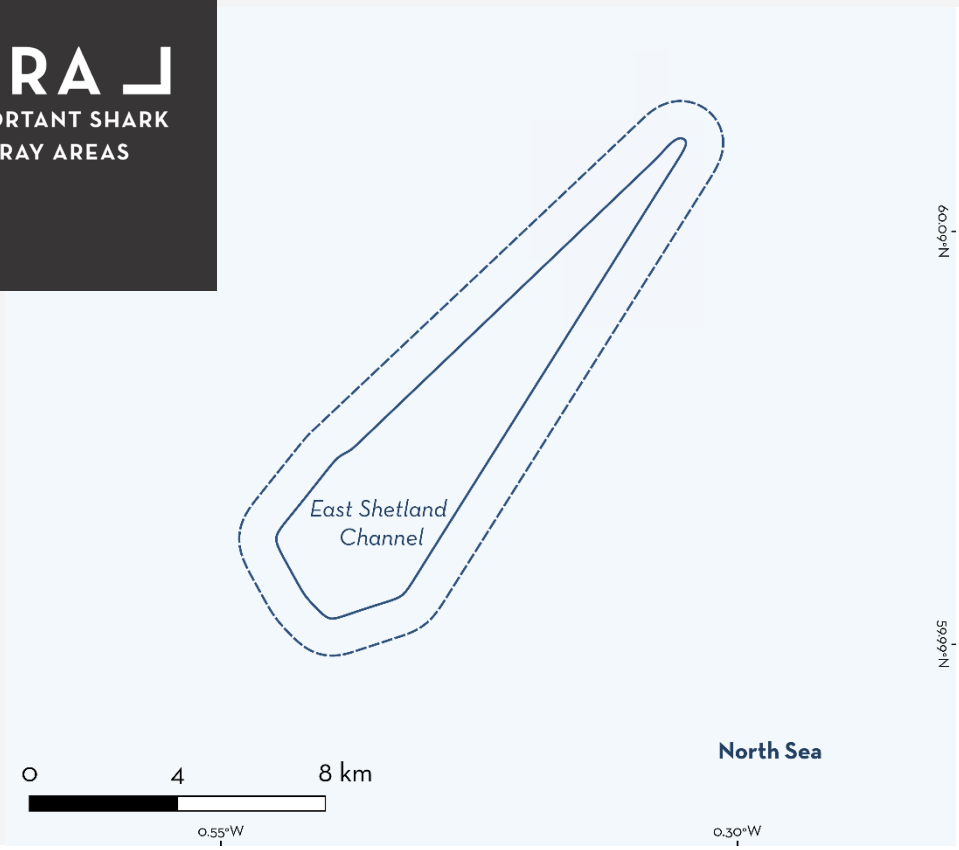
ISRA
IMPORTANT SHARK AND RAY AREAS



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

EAST SHETLAND CHANNEL ISRA

European Atlantic Region

SUMMARY

East Shetland Channel is situated in the northern North Sea, off the southeastern coast of the Shetland Isles within the United Kingdom of Great Britain and Northern Ireland. The area is characterised by sandy, shelly, and muddy substrates. It is influenced by the southward-flowing Atlantic Water Current. Within this area there are: **threatened species** and **reproductive areas** (Thorny Skate *Amblyraja radiata*).

CRITERIA

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

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

120–150 metres

34.54 km²

DESCRIPTION OF HABITAT

East Shetland Channel is situated in the northern North Sea, off the southeastern coast of the Shetland Isles within the United Kingdom of Great Britain and Northern Ireland. The area is characterised by sandy, shelly, and muddy substrates, north of the Fladen Grounds (GPS Nautical Charts 2025). It is influenced by southward flowing Atlantic Water Current (Marine Scotland Assessment 2025).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 120–150 m based on the depth range of Qualifying Species in 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 Thorny Skate (Kulka et al. 2020).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

East Shetland Channel is an important reproductive area for one ray species.

Annual surveys were undertaken in this area between 2010–2024 as part of the North Sea International Bottom Trawl Survey (IBTS; ICES 2025). During this period, 109 Thorny Skates were recorded across nearly all survey years of the IBTS (between 1–17 per year). Of these, 28 neonate/young-of-the-year (YOY) Thorny Skates were caught within this area, measuring ≤14 cm total length (TL). Thorny Skate hatch at ~10 cm TL, and individuals up to 14 cm TL are considered YOY (Ellis et al. 2024). Neonate/YOY Thorny Skates were reported in 2010 (n = 3), 2012 (n = 2), 2014 (n = 1), 2015 (n = 5), 2016 (n = 3), 2017 (n = 5), 2018 (n = 3), and 2021 (n = 6). Between 2014–2017, Thorny Skate egg cases caught in the IBTS were retained for identification and analysis by the Shark Trust. Overall, 63 Thorny Skate egg cases were recorded in 2014 (n = 9), 2015 (n = 16), 2016 (n = 7), and 2017 (n = 31) (Shark Trust unpubl. data 2025). The design of the IBTS reduces the catchability of smaller rays, such as Thorny Skates (Walker et al. 2017). Despite this, this area has the highest number of neonate/YOY observations of the species within the United Kingdom of Great Britain and Northern Ireland. This area also has the most regular and predictable observations, with records from seven contemporary years.

Acknowledgments

Jim Ellis (Centre for the Environment, Fisheries and Aquaculture Science [Cefas]), Sophy McCully Phillips (Centre for the Environment, Fisheries and Aquaculture Science [Cefas]), Joana Silva (Centre for the Environment, Fisheries and Aquaculture Science [Cefas]), Ali Hood (Shark Trust), Harriet Allen (Shark Trust), and Ryan Charles (IUCN SSC Shark Specialist Group – ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2025 ISRA Region 02 – European Atlantic workshop for their contributions to this process.

This factsheet has undergone review by the ISRA Independent Review Panel prior to its publication.

This project was funded by the Shark Conservation Fund, a philanthropic collaborative pooling expertise and resources to meet the threats facing the world's sharks and rays. The Shark Conservation Fund is a project of Rockefeller Philanthropy Advisors.

Suggested citation

IUCN SSC Shark Specialist Group. 2025. East Shetland Channel ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

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												
Amblyraja radiata	Thorny Skate	VU	0–1,400	X		X						

REFERENCES

Ellis JR, Gordon CA, Allen HL, Silva JF, Bird C, Johnston G, O'Connor B, McCully Phillips SR, Hood A. 2024. The distribution of the juvenile stages and eggcases of skates (Rajidae) around the British Isles. *Aquatic Conservation: Marine and Freshwater Ecosystems* 34: e4149. https://doi.org/10.1002/aqc.4149

GPS Nautical Charts. 2025. British Isles - Shetland Islands - North East (Marine Chart : GB_GB303282). Available at: https://www.gpsnauticalcharts.com/main/gb_gb303282-british-isles-shetland-islands-north-east-nautical-chart.html Accessed May 2025.

ICES. 2025. ICES Database on Trawl Surveys (DATRAS). Copenhagen, Denmark: ICES. Available at: https://datras.ices.dk Accessed May 2025.

Kulka DW, Ellis JR, Anderson B, Cotton CF, Derrick D, Pacoureau N, Dulvy NK. 2020. *Amblyraja radiata. The IUCN Red List of Threatened Species* 2020: e.T161542A124503504. https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T161542A124503504.en

Marine Scotland Assessment. 2025. Circulation. Available at: https://marine.gov.scot/sma/assessment/circulation Accessed May 2025.

Walker ND, Maxwell DL, Le Quesne WJ, Jennings S. 2017. Estimating efficiency of survey and commercial trawl gears from comparisons of catch-ratios. *ICES Journal of Marine Science* 74: 1448–1457. https://doi.org/10.1093/icesjms/fsw250