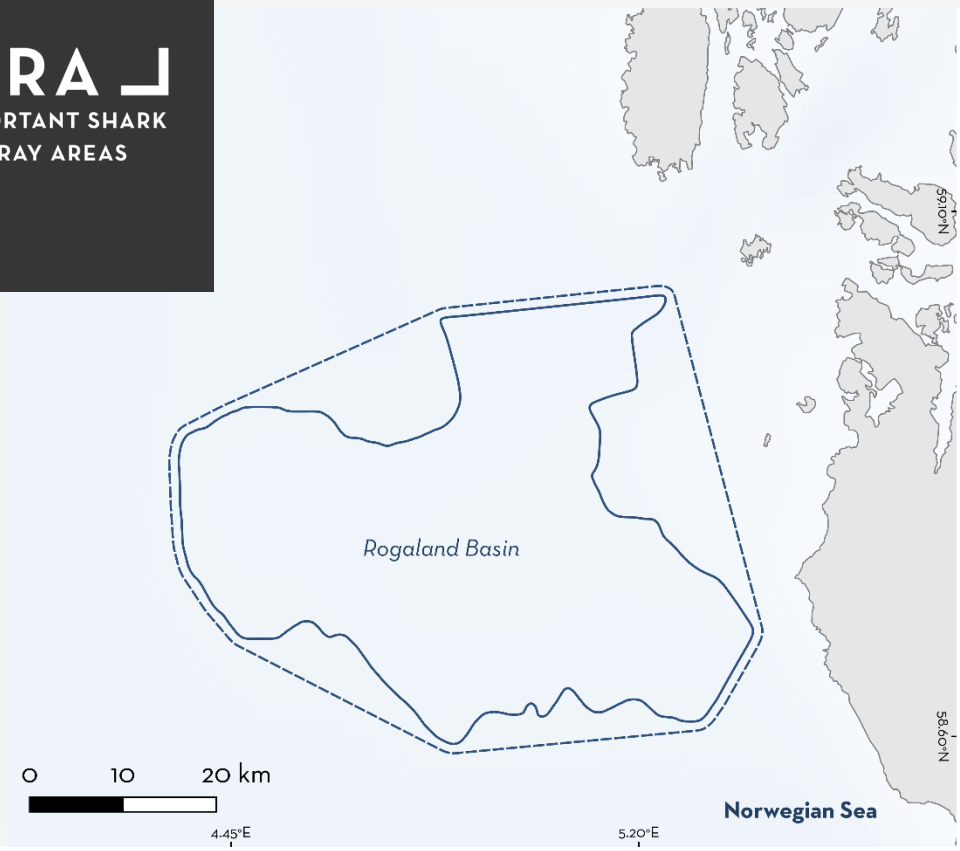
ISRA
IMPORTANT SHARK AND RAY AREAS



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

ROGALAND BASIN ISRA

Polar Waters Region

NORWAY

120–258 metres

1,652 km²

SUMMARY

Rogaland Basin is located off the southwest coast of Norway. Most of the area overlaps with the Norwegian Trench, an elongated depression influenced by three distinct water masses. The area is influenced by large-scale eddies and upwelling driven by multiple water currents. Within this area there are: **threatened species** and **reproductive areas** (Rabbitfish *Chimaera monstrosa*).

CRITERIA

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

DESCRIPTION OF HABITAT

Rogaland Basin is located off the southwest coast of Norway. It overlaps with the Norwegian Trench, an elongated depression which reaches depths of ~700 m, atypical of the average ~100 m depth of the North Sea (Furnes et al. 1986; Rodhe 1989).

There are three distinct water masses in the Norwegian Trench: coastal water (0–300 m), Atlantic water (off shelf, 0–400 m; below coastal water, 300–400 m), and Norwegian deepsea water (off the shelf break, to 700 m) (Nordby et al. 1999). The area is influenced by the northeasterly flowing Norwegian Coastal Current, and the southward inflow of the Atlantic Water (Johannessen et al. 1989). There is increased water velocity at the shelf break caused by the Norwegian Atlantic Current (Nordby et al. 1999). Large-scale eddies result from the difference in densities between the Norwegian Coastal Current and the adjacent Atlantic Water (Johannessen et al. 1989).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 120 m to 258 m based on the depth range of the 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 Rabbitfish (Finucci 2020).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Rogaland Basin is an important reproductive area for one chimaera species.

Between 2018–2022, 3,322 Rabbitfish were captured from trawl fisheries operating in and around the Norwegian Trench (Jac et al. 2022; R Jac et al. unpubl. data. 2024). Of these, 31% (n = 1,029) were neonates/young-of-the-year (YOY) measuring <20 cm total length (TL) (R Jac et al. unpubl. data 2024). The species has an estimated size-at-birth of ~15 cm TL (R Jac pers. obs. 2024). Individuals in this size range were observed in every year of the survey: 2018 (n = 72), 2019 (n = 66), 2020 (n = 283), 2021 (n = 231), and 2022 (n = 377).

Within Rogaland Basin, 117 Rabbitfish were caught between 2018–2022. Of these, 82% (n = 96) were neonates/YOY (R Jac et al. unpubl. data 2024). Individuals in this size range were observed in every year of the survey: 2018 (n = 2), 2019 (n = 1), 2020 (n = 127), 2021 (n = 18), and 2022 (n = 48). The surveys in this area were undertaken in January, and therefore additional temporal data are required to confirm seasonality in reproductive behaviour (R Jac et al. unpubl. data 2024). Although there are records of neonates/YOY of Rabbitfish along the Norwegian Trench, this area has national importance as it has one of the highest known catch records of Rabbitfish at this life history stage in Norway (R Jac pers. obs. 2024).

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Romaric Jac (Institute of Marine Research, Norway) and Ryan Charles (IUCN SSC Shark Specialist Group – ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2024 ISRA Region 1 – Polar Waters workshop for their contributions to this process.

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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
CHIMAERAS												
Chimaera monstrosa	Rabbitfish	VU	120–1,663	X		X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Etmopterus spinax	Velvet Belly Lanternshark	VU
Galeus melastomus	Blackmouth Catshark	LC
Squalus acanthias	Spiny Dogfish	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.

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