

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

WEST SPITSBERGEN ISRA

Polar Waters Region

SUMMARY

West Spitsbergen is located in the Svalvard Archipelago of northern Norway. It sits on the slope of the Fram Strait and is characterised by the presence of underwater canyons as well as moraines and plough marks. Within this area there are: **undefined aggregations** (Arctic Skate *Amblyraja hyperborea*).

CRITERIA

Sub-criterion C5 - Undefined Aggregations

NORWAY

500-1,000 metres

8,955.6 km²





DESCRIPTION OF HABITAT

West Spitsbergen is located in the Svalbard Archipelago of northern Norway. It sits on the slope of the Fram Strait and is characterised by the presence of underwater canyons as well as moraines and plough marks in the Yermak plateau (Dowdeswell et al. 2010).

The area is highly influenced by the transport of warm and saline water from the Atlantic Water passing through the Fram Strait that meets with the less saline and colder waters from the Arctic (Ivanov et al. 2009; Walczowski & Piechura 2011).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 500-1,000 m based on the depth range of Qualifying Species in the area.

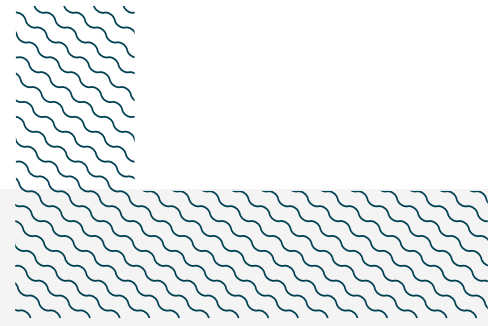
ISRA CRITERIA

SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

West Spitsbergen is an important area for undefined aggregations of one ray species.

Skates are known to aggregate, with temporal changes related to sex and life-stage segregations (Swain & Benoît 2006; Frisk 2010; Hoff 2016). The presence of these aggregations is usually related to high density areas where large catch quantities of these species occur (Bizzarro et al. 2014). Scientific surveys in the Barents Sea using benthic trawls during the boreal summer-autumn between 2004-2021 showed that aggregations of Arctic Skate regularly occur in West Spitsbergen (Dolgov & Prozorkevich 2022). Relative abundance (individuals/nautical mile² [NM²]) was calculated as the area of a trawl haul by multiplying the trawl horizontal opening and hauling distance (Dolgov & Prozorkevich 2022). Average trawls had a vertical opening of 4-5 m and a horizontal opening of 15-16 m with a tow duration of 15-30 minutes (Dolgov & Prozorkevich 2022).

This area held the largest abundance (mean: 20-27 individuals/NM², max: 101 individuals/NM²) of Arctic Skate in all the Barents Sea (Dolgov & Prozorkevich 2022). Individuals of this species were caught in other areas of the region but in lower numbers compared to West Spitsbergen where it was mostly found at depths between 500-1,000 m, with multiple individuals caught in a single haul (Dolgov et al. 2005a, 2005b; Dolgov 2016; Dolgov & Prozorkevich 2022). This was also one of the areas with higher abundance of Arctic Skates between 1996-2001 (Dolgov et al. 2005b). Individuals measuring <20 cm total length (LT) have been reported in the area which is close to the reported size-at-birth for the species (16-18 cm TL; Last et al. 2016). More information is needed to confirm the nature of these aggregations.



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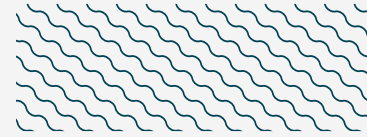
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QUALIFYING SPECIES

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>Amblyraja hyperborea</i>	Arctic Skate	LC	140-3,165								X		

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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