

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.

\* A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

## FALKLAND ISLANDS NORTHWESTERN SLOPE ISRA

South American Atlantic Region

#### SUMMARY

Falkland Islands Northwestern Slope is located along the continental slope west of the Falkland Islands (Malvinas). The area is characterised by sandy and muddy substrates. It is influenced by the transition zone between Patagonian Shelf waters and the surface Sub-Antarctic Water mass of the Falkland/Malvinas Current. Within this area there are: **threatened species** (e.g., Greytail Skate *Bathyraja griseocauda*) and **range-restricted species** (e.g., Cousseau's Skate *Bathyraja cousseauae*).

## CRITERIA

Criterion A - Vulnerability; Criterion B - Range Restricted



250-400 metres

845.5 km<sup>2</sup>



## DESCRIPTION OF HABITAT

Falkland Islands Northwestern Slope is located along the continental slope east of the Falkland Islands (Malvinas). It extends across the northern slope to depths of ~400 m. The area is characterised by sandy and muddy substrates, with relatively flat terrain in the shallower section (250–350 m) (Arkhipkin et al. 2012). It is influenced by the transition zone between Patagonian Shelf waters and the surface Sub-Antarctic Water mass of the Falkland/Malvinas Current (Arkhipkin et al. 2012). Water temperatures exhibit seasonal variation, ranging from 4.8–5.5°C, with the highest temperatures observed between April and May.

This Important Shark and Ray Area is benthic and subsurface and is delineated from 250-400 m based on the bathymetry in the area.

## **ISRA CRITERIA**

#### **CRITERION A - VULNERABILITY**

Two Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. These are the Endangered Greytail Skate (Pollom et al. 2020) and the Vulnerable Shorttail Yellownose Skate (Pollom et al. 2021).

## **CRITERION B - RANGE RESTRICTED**

Falkland Islands Northwestern Slope holds the regular and predictable presence of the Cousseau's Skate, Greytail Skate, and Shorttail Yellownose Skate as resident range-restricted species.

Between 2010-2019, biological surveys for skates were conducted during research cruises along the north slope of the Falkland Islands (Malvinas) covering more than ~29,000 km<sup>2</sup> in 2010 (October = 12 days, 52 stations sampled), 2013 (November = 17 days, 70 stations sampled), and 2019 (October = 12 days, 48 stations sampled) (Arkhipkin et al. 2010; Pompert et al. 2014; Goyot et al. 2020). Sampling was conducted with a bottom trawl fitted with a 90 mm cod end across several stations (Arkhipkin et al. 2010; Pompert et al. 2010; Sampling with an average trawl speed of four knots (Goyot et al. 2020). All shark and ray catches were identified to species level, weighed, measured (disc width [DW]), sexed, and maturity status was determined. Skate biomass estimates were calculated by extrapolating catch density (catch weight per trawl swept area) using a cubic spline algorithm (Arkhipkin et al. 2010; Pompert et al. 2014; Goyot et al. 2020).

Between 2010-2019, Cousseau's Skate was captured in the area at a higher proportion (n = 506.1 kg, 25% of the total weight catch) based on Kernel density analysis, encompassing the hauls with the higher values of kg captured per haul (max 221 kg), compared to the adjacent waters (total weight = 2,482.1 kg) (J Pompert unpubl. data 2025). In 2010, 41.5 kg of this species was captured in the area comprising the 8.6% of all from the region (total weight = 483 kg) (Arkhipkin et al. 2010; J Pompert unpubl. data 2025). In 2013, 73 kg of this species was captured in the area comprising the 9.2% of all from the region (total weight = 797 kg) (Pompert et al. 2014; J Pompert unpubl. data 2025). In 2019, 506.1 kg of this species was captured in the area comprising the 31.8% of all from the region (total weight = 1,592.7 kg) (Goyot et al. 2020; J Pompert unpubl. data 2025). Captures in the region occurred at depths ranging from 170-409 m, with the highest catches recorded between 250-377 m (Arkhipkin et al. 2010; Pompert et al. 2014; Goyot et al. 2020). Sizes in the region ranged from 4-82 cm DW (Arkhipkin et al. 2010; Pompert et al. 2014; Goyot et al. 2020). This area holds the largest biomass in

all the sampled region for this species (J Pompert unpubl. data 2025). The Cousseau's Skate is distributed across the Patagonian Shelf and Humboldt Current Large Marine Ecosystems (LMEs).

Between 2010-2019, Greytail Skate was captured in the area at a higher proportion (n = 1,414.9 kg, 23.5% of the total weight catch) based on Kernel density analysis, encompassing the hauls with the higher values of kg captured per haul (max 375.5 kg), compared to the adjacent waters (n = 9,733.9 kg) (J Pompert unpubl. data 2025). In 2010, 443.8 kg of this species was captured in the area comprising the 18.7% of all from the region (total weight = 2,378 kg) (Arkhipkin et al. 2010; J Pompert unpubl. data 2025). In 2013, 423.6 kg of this species was captured in the area comprising the 16.2% of all from the region (total weight = 2,622 kg) (Pompert et al. 2014; J Pompert unpubl. data 2025). In 2019, 1,416.9 kg of this species was captured in the area comprising the 28.4% of all from the region (total weight = 4,987.5 kg) (Goyot et al. 2020; J Pompert unpubl. data 2025). Captures in the region occurred at depths ranging from 142-640 m, with the highest catches recorded between 240-434 m (Arkhipkin et al. 2010; Pompert et al. 2014; Goyot et al. 2020). Sizes in the region ranged from 10-109 cm DW (Arkhipkin et al. 2010; Pompert et al. 2014; Goyot et al. 2020). The Greytail Skate is distributed across the Patagonian Shelf and Humboldt Current LMEs.

Between 2010-2019, Shorttail Yellownose Skate was captured in the area at a higher proportion (n = 508 kg, 28.1% of the total weight catch) based on Kernel density analysis, encompassing the hauls with the higher values of kg captured per haul (max 245.3 kg), compared to the adjacent waters (n = 3,979.6 kg) (J Pompert unpubl. data 2025). In 2010, 359.9 kg of this species was captured in the area comprising the 32.2% of all from the region (total weight = 2,378 kg) (Arkhipkin et al. 2010; J Pompert unpubl. data 2025). In 2013, 251.3 kg of this species was captured in the area comprising the 12.5% of all from the region (total weight = 2,016 kg) (Pompert et al. 2014; J Pompert unpubl. data 2025). In 2019, 509 kg of this species was captured in the area comprising the 33.9% of all from the region (total weight = 1,502.4 kg) (Goyot et al. 2020; J Pompert unpubl. data 2025). In the border region, captures occurred at depths ranging from 140-541 m, with the highest catches recorded between 200-265 m (Arkhipkin et al. 2010; Pompert et al. 2014; Goyot et al. 2020). Sizes ranged from 32-87 cm DW (Arkhipkin et al. 2010; Pompert et al. 2014; Goyot et al. 2020). The Shorttail Yellownose Skate is distributed across the Patagonian Shelf and South Brazil Shelf LMEs.

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# QUALIFYING SPECIES

| Scientific Name       | Common Name                | IUCN Red<br>List<br>Category | Global<br>Depth<br>Range (m) | ISRA Criteria/Sub-criteria Met |   |    |    |    |    |    |    |    |
|-----------------------|----------------------------|------------------------------|------------------------------|--------------------------------|---|----|----|----|----|----|----|----|
|                       |                            |                              |                              | A                              | В | C1 | C2 | C3 | C4 | C5 | Dı | D2 |
| RAYS                  |                            |                              |                              |                                |   |    |    |    |    |    |    |    |
| Bathyraja cousseauae  | Cousseau's Skate           | LC                           | 105-1,190                    |                                | Х |    |    |    |    |    |    |    |
| Bathyraja griseocauda | Greytail Skate             | EN                           | 30-1,010                     | Х                              | Х |    |    |    |    |    |    |    |
| Zearaja brevicaudata  | Shorttail Yellownose Skate | VU                           | 25-350                       | Х                              | Х |    |    |    |    |    |    |    |

## SUPPORTING SPECIES

| Scientific Name         | Common Name           | IUCN Red List<br>Category |  |  |  |
|-------------------------|-----------------------|---------------------------|--|--|--|
| RAYS                    |                       |                           |  |  |  |
| Amblyraja doellojuradoi | Southern Thorny Skate | LC                        |  |  |  |
| Bathyraja albomaculata  | White-dotted Skate    | VU                        |  |  |  |
| Bathyraja brachyurops   | Broadnose Skate       | NT                        |  |  |  |
| Bathyraja macloviana    | Patagonian Skate      | NT                        |  |  |  |
| Bathyraja scaphiops     | Cuphead Skate         | LC                        |  |  |  |

IUCN Red List of Threatened Species Categories are available by searching species names at <u>www.iucnredlist.org</u> Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.



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