

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 ISLA DE LOS ESTADOS ISRA

South American Atlantic Region

SUMMARY

East Isla de los Estados is located in offshore waters of the southwest Atlantic Ocean in Argentina. It encompasses a large plateau and part of the slope towards the Yaghan Basin. The area is characterised by waters of sub-Antarctic origin and high primary productivity. It is influenced by productive fronts along the edge of the Argentine Shelf and Patagonian Shelf. Within the area there are: **threatened species** and **feeding areas** (Porbeagle *Lamna nasus*).

CRITERIA

Criterion A - Vulnerability; Sub-criterion C2 - Feeding Areas

ARGENTINA

0-1,750 metres

6,868.7 km²



DESCRIPTION OF HABITAT

East Isla de los Estados is located in the southwestern Atlantic Ocean in Argentina. It encompasses a large plateau of 80-150 m depth, situated at the east of the Argentinean Continental Shelf Break and part of the slope up to 1,750 m depth towards the Yaghan Basin. The area is characterised by waters of sub-Antarctic origin and high primary productivity (Colonello et al. 2024; Marina et al. 2024). The area is influenced by productive fronts along the edge of the Argentine Shelf and the Patagonian Shelf including a thermohaline front near the Argentine Continental Shelf Break, formed by the convergence of the saline Falkland-Malvinas Current and the Subantarctic Shelf Waters (Acha et al. 2004). This permanent front is more intense and expansive during the austral spring and summer compared to the colder seasons (Acha et al. 2004). Additionally, the region includes another prominent thermohaline front, marked by a strong salinity gradient to the south. This gradient results from the flow of the Cape Horn Current toward the Atlantic through the Le Maire Strait, further influenced by continental runoff (Colonello et al. 2024).

This Important Shark and Ray Area is benthic and pelagic and is delineated from surface waters (0 m) to 1,750 m based on the bathymetry of 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 Porbeagle (Rigby et al. 2019).

SUB-CRITERION C2 – FEEDING AREAS

East Isla de los Estados is an important feeding area for one shark species.

The area is an important feeding ground for Porbeagle, especially for females that feed on demersal and pelagic fishes that are abundant in this area (Cortés & Waessle 2017; Cortés et al. 2017; Belleggia et al. 2021; Colonello et al. 2024). Between 2010-2020, 148 fishing sites were surveyed for Porbeagle incidental catch on commercial trawl fishing vessels targeting Hoki *Macruronus magellanicus* and Southern Blue Whiting *Micromesistius australis* within the area and surrounding areas of the southwestern Atlantic Ocean. These surveys, conducted during January (n = 5), February (n = 22), March (n = 24), April (n = 32), May (n = 45), June (n = 15), and July (n = 5) were documented by 15 scientific observers from the National Institute of Fisheries Research and Development (Belleggia et al. 2021). Data collected included date, coordinates, depth, total length (TL), sex, and prey items identified to the lowest possible taxonomic level from Porbeagle stomachs. The importance of each prey in the Porbeagle's diet was assessed by calculating its percentage frequency of occurrence (%F), representing the proportion of stomachs containing a given prey relative to all stomachs with food (Belleggia et al. 2021).

A total of 413 Porbeagles were captured within the area and surrounding areas in the southwestern Atlantic Ocean, with 292 females ranging from 71-241 cm TL (mean = 183.7 cm, SD = 27) and 121 males ranging from 87-218 cm TL (mean = 170.2 cm, SD = 23.5) (Belleggia et al. 2021). A total of 310 stomachs (75%) contained food (Belleggia et al. 2021). Porbeagle in this area primarily fed on fishes (88.3%), with cephalopods (5.9%), and crustaceans (4.3%), making up smaller portions of their diet. The most important identifiable fish prey were Hoki and Southern Blue Whiting, followed by Patagonian Sprat *Sprattus fuegensis*, notothenids, and Southern Hake *Merluccius australis* (Belleggia et al. 2021). The

area represents ~70% of Porbeagle captures where stomach contents were analysed and overlaps with the highest year-round abundances of its primary prey, Hoki (Gorini & Lukaszewicz 2024), as well as the regular catch area of Southern Blue Whiting (Gorini & Lukaszewicz 2024). It also overlaps with Hoki spawning grounds, which extend from June–October (Gorini & Pájaro 2011; Giussi et al. 2016). However, Porbeagles are primarily present in the area during the summer and autumn, coinciding with non-reproductive aggregations of Hoki (Belleggia et al. 2021).

Additionally, ovulating and pregnant female Porbeagles were recorded in the area from 2015–2021. Animals migrate seasonally from northern areas, where optimal conditions for gestation exist, which may indicate that this area provides access to prey with high-energy content and low search costs, minimising interspecific competition and allowing optimal foraging to maintain endothermy and supporting ovarian and embryonic development (Colonello et al. 2024).

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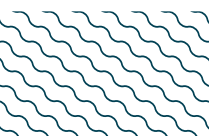
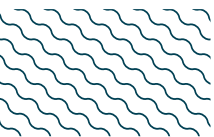
QUALIFYING SPECIES

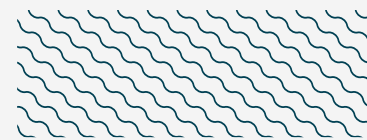
| Scientific Name | Common Name | IUCN Red List Category | Global Depth Range (m) | ISRA Criteria/Sub-criteria Met | | | | | | | | |
|-----------------|-------------|------------------------|------------------------|--------------------------------|---|----|----|----|----|----|----|----|
| | | | | A | B | C1 | C2 | C3 | C4 | C5 | D1 | D2 |
| SHARKS | | | | | | | | | | | | |
| Lamna nasus | Porbeagle | VU | 0-1,809 | X | | | X | | | | | |

SUPPORTING SPECIES

| Scientific Name | Common Name | IUCN Red List Category |
|------------------------------|------------------------|------------------------|
| SHARKS | | |
| <i>Cetorhinus maximus</i> | Basking Shark | EN |
| <i>Somniosus antarcticus</i> | Southern Sleeper Shark | LC |
| RAYS | | |
| <i>Bathyraja brachyurops</i> | Broadnose Skate | NT |
| <i>Bathyraja cousseauae</i> | Cousseau's Skate | LC |
| <i>Bathyraja macloviana</i> | Patagonian Skate | NT |
| <i>Bathyraja scaphiops</i> | Cuphead Skate | LC |
| <i>Psammobatis rudis</i> | Smallthorn Sandskate | LC |

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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