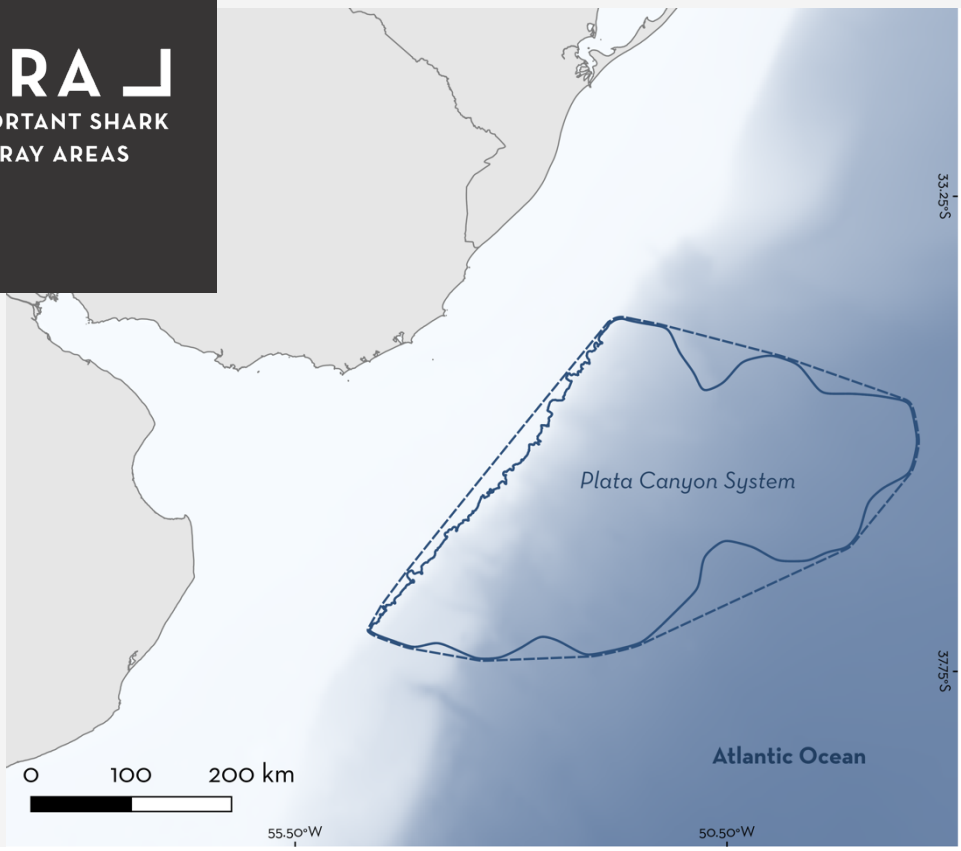
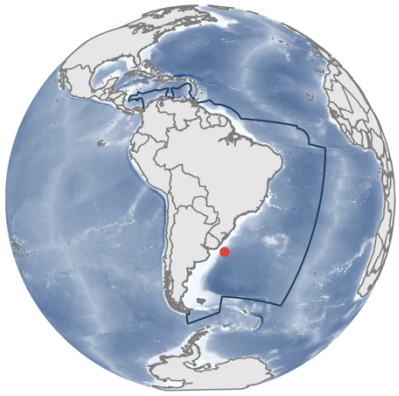
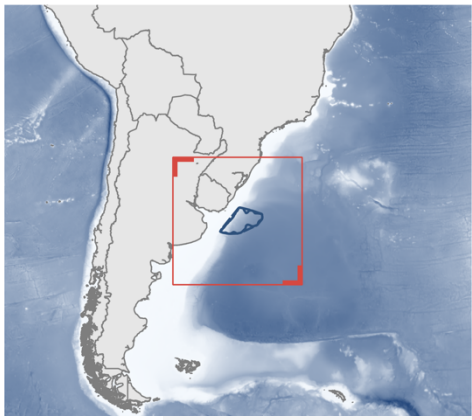
ISRA
IMPORTANT SHARK AND RAY AREAS







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

PLATA CANYON SYSTEM ISRA

South American Atlantic Region

URUGUAY
BRAZIL
ARGENTINA
ABNJ

0–1,792 metres

106,490 km²

SUMMARY

Plata Canyon System is located on the shelf break off Uruguay, northern Argentina, and southern Brazil, and extends into offshore waters in areas beyond national jurisdiction (ABNJ). This area is influenced by the warm, southward Brazil Current and the cool, northward Falkland-Malvinas Current. The habitat is characterised by pelagic waters, with many canyons and terraces along the shelf slope. It partly overlaps with the Southern Brazilian Sea Ecologically or Biologically Significant Marine Area. Within this area there are: **reproductive areas** (Blue Shark *Prionace glauca*).

CRITERIA

Sub-criterion C1 – Reproductive Areas

DESCRIPTION OF HABITAT

Plata Canyon System is located in the Uruguayan, Argentine, and Brazilian exclusive economic zones and in areas beyond national jurisdiction (ABNJ). The area comprises shelf slope waters in the west and extends into deeper offshore waters. The habitat is characterised by pelagic waters, with many canyons and terraces on the shelf slope (Lonardi & Ewing 1971). It is influenced by the confluence of the southward, warm Brazil Current and the northward, cool Falkland-Malvinas Current (Campos et al. 1995).

This area partly overlaps with the Southern Brazilian Sea Ecologically or Biologically Significant Marine Area (EBSA; CBD 2025).

This Important Shark and Ray Area is pelagic and is delineated from surface waters (0 m) to 1,792 m based on the global depth range of the Qualifying Species.

ISRA CRITERIA

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Plata Canyon System is an important reproductive area for one shark species.

Captures of Blue Shark neonates, young-of-the-year (YOY), and small juveniles (age ≤1 year) in the Atlantic Ocean are concentrated in this area (Coelho et al. 2018). An analysis of observer data from commercial, artisanal, and scientific longline fisheries across the Atlantic Ocean was conducted, including a variety of timeframes for the different datasets, such as 1998–2012 in the Uruguayan commercial longline fishery (Coelho et al. 2018). Early life stages were classified by size measurements, with neonate and YOY (age = 0) defined as <61 and <66 cm fork length (FL) for females and males, respectively, and young juveniles (age = 1 year) as <97.5 cm FL (Coelho et al. 2018). Early life stages were grouped because small Blue Sharks are thought to remain in nursery areas before migrating when they reach ~130 cm total length (TL) (Nakano & Stevens 2008). Although early life stages were also found in the southeast Atlantic Ocean and around a band spanning from the mainland of Portugal to the Azores, the main hotspot of captures was in this area, highlighting its importance as a reproductive area. While the spatial resolution of this analysis was coarse (Coelho et al. 2018), a more detailed dataset from another study (Domingo et al. 2008) was used to delineate the boundary. The latter study examined Blue Shark captures in the Brazilian and Uruguayan longline fishery between 1985–2007 and showed that captures of small individuals <120 cm TL were concentrated in this area extending from the shelf break into offshore waters (Domingo et al. 2008). The size-at-birth for the species is 56 cm TL with an initial grow rate of 33 cm, indicating that Blue Sharks <120 cm in TL are <2 years old (Lessa et al. 2004; Hsu et al. 2015). Larger numbers of these life stages were recorded between July–September (Domingo et al. 2008), suggesting a seasonal nature to reproduction in this area. The area also broadly overlaps with the grid cell that had the smallest mean size (~90 cm FL) for male Blue Sharks captured in the wider region between 1998–2019 (Mas et al. 2023), highlighting the importance of this area for the early life stages of the species.

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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												
Prionace glauca	Blue Shark	NT	0–1,792			X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Isurus oxyrinchus	Shortfin Mako	EN
Lamna nasus	Porbeagle	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.

SUPPORTING INFORMATION

There are additional indications that Plata Canyon System is an important reproductive area for two shark species.

Between 1998–2009, catches from 686 sets (810,200 hooks) from the Uruguayan commercial longline fishery were recorded (Mas-Bervejillo 2012). Catch-per-unit-effort was estimated as the number of sharks per 1,000 hooks (Mas-Bervejillo 2012). During this period a total of 1,989 Shortfin Makos were captured in the area and adjacent waters for which 1,523 were measured. Shortfin Makos ranged between 70–270 cm FL and 93.4% (n = 1,423) were considered juveniles (Mas-Bervejillo 2012). Size-at-birth for the species is 60–70 cm TL (Ebert et al. 2021), indicating that some of these individuals were YOY. Further information is required to determine the importance of the area for the reproduction of the species.

During this period a total of 768 Porbeagles were captured in the area and adjacent waters for which 556 individuals were measured (Mas-Bervejillo 2012). Porbeagles ranged between 68–226 cm FL. Juveniles and YOY were captured only during July–September and in November (Mas-Bervejillo 2012). Size-at-birth for the species is 60–80 cm TL (Ebert et al. 2021), indicating that some of these individuals were YOY. Further information is required to determine the importance of the area for the reproduction of the species.

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