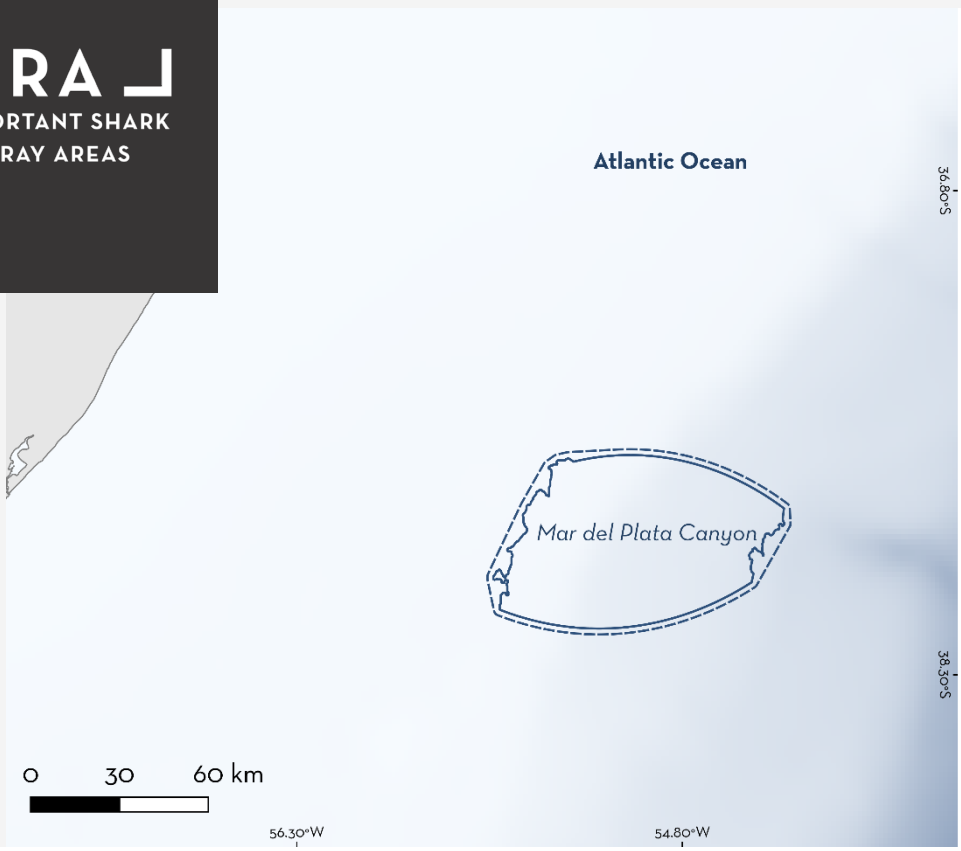
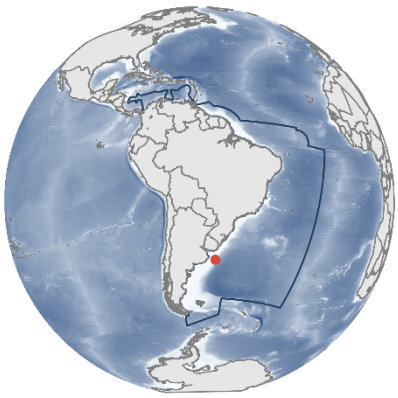
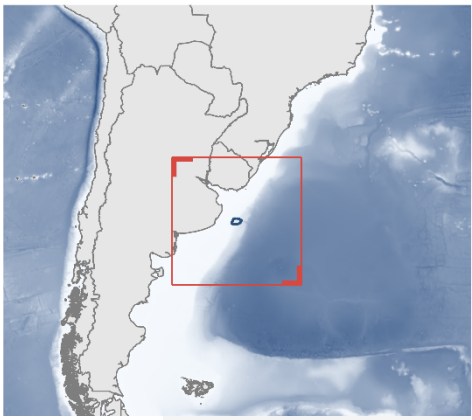
ISRA
IMPORTANT SHARK AND RAY AREAS







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

MAR DEL PLATA CANYON ISRA

South American Atlantic Region

ARGENTINA

90–1,000 metres

4,319.5 km²

SUMMARY

Mar del Plata Canyon is located off the coast of the Buenos Aires Province in Argentina. It includes part of the continental slope and the Mar del Plata Canyon. The area is characterised by fine sand with a mixture of terrigenous material and planktonic foraminifera substrate. The area is highly productive, influenced by the permanent Argentine Shelf-break Front. Within this area there are: **reproductive areas** (Southern Thorny Skate *Amblyraja doellojuradoi*).

CRITERIA

Sub-criterion C1 – Reproductive Areas

DESCRIPTION OF HABITAT

Mar del Plata Canyon is located at the continental margin off the coast of Buenos Aires Province, Argentina. It includes part of the continental slope and part of the Mar del Plata Canyon. This area is the largest of the Río de la Plata Canyon System. It is located in the northern sector of the margin more than 250 km off the coast and at a depth from 900–3,900 m (Bozzano et al. 2021). The area is characterised by fine sand with a mixture of terrigenous material and planktonic foraminifera substrate (Bozzano et al. 2021). It is highly productive and influenced by the permanent Argentine Shelf-break Front (Vazquez et al. 2016). This front marks the boundary where subantarctic shelf waters meet the cooler, more saline waters of the Falkland-Malvinas Current, creating a significant thermohaline front (Lutz & Carreto 1991).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 90–1,000 m based on the depth range of Qualifying Species and the bathymetry of the area.

ISRA CRITERIA

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Mar del Plata Canyon is an important reproductive area for one ray species.

High densities of egg capsules were found in the area for Southern Thorny Skate (Vazquez et al. 2016). Between 2009–2014, eight research cruises conducted bottom trawls on the northern Argentine continental shelf (36°S–41°S) at depths of 50–3,447 m (Vazquez et al. 2016). Sampling employed two types of bottom trawl nets and two dredges, with trawling durations of 20–30 min at speeds of 1.5–3 knots, resulting in a total of 122 fishing hauls. Catch-per-unit-effort (CPUE) for Southern Thorny Skate egg cases was calculated based on the area swept by survey trawls (Alverson & Pereyra 1969) expressed as egg capsule per km^2 (capsules/km^2). After taxonomic identification, the number of capsules per haul for each species was recorded (Vazquez et al. 2016).

Between 2009–2014, 70 Southern Thorny Skate egg capsules were collected in 24 hauls in the area and adjacent areas from 84–1,006 m depth. Full egg capsules (with embryos) were found in hauls at 95–1,006 m depth (Vazquez et al. 2016). Southern Thorny Skate was the third most abundant species in hauls, with relative egg capsule densities estimated between 169–3,726 capsules/km^2. The highest density (>3,000 capsules/km^2) was mainly found in the area at 852 m. The area included the only haul with 3,726 capsules/km^2 and three of the six hauls with densities between 301–1,000 capsules/km^2 (Vazquez et al. 2016). The higher density of egg capsules within this area indicates that this is an important reproductive area for Southern Thorny Skate (Vazquez et al. 2016).

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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												
Amblyraja doellojuradoi	Southern Thorny Skate	LC	50–1,000			X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Lamna nasus	Porbeagle	VU
Schroederichthys bivius	Narrowmouth Catshark	LC
Squalus acanthias	Spiny Dogfish	VU
Squalus lobularis	Atlantic Lobed-fin Dogfish	DD
RAYS		
Bathyraja albomaculata	White-dotted Skate	VU
Bathyraja brachyurops	Broadnose Skate	NT
Bathyraja griseocauda	Greytail Skate	EN
Bathyraja macloviana	Patagonian Skate	NT
Bathyraja multispinis	Multispine Skate	NT
Bathyraja scaphiops	Cuphead Skate	LC
Psammobatis normani	Shortfin Sandskate	LC
Psammobatis rudis	Smallthorn Sandskate	LC
Zearaja brevicaudata	Shorttail Yellownose Skate	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 Mar del Plata Canyon is an important reproductive area for four ray species.

Between 2009–2014, 49 Broadnose Skate eggs were collected during 18 hauls in the area and adjacent areas limited to the shelf waters ranging from 94–251 m in depth (Vazquez et al. 2016). The Broadnose Skate was the fourth most abundant species in the hauls across the broader region, with relative capsule densities ranging from 62–540 capsules/km^2 (Vazquez et al. 2016). Of the five hauls with the highest densities, one was within the area (Vazquez et al. 2016). Reproductive areas for this species are closely associated with the Argentine Shelf-break Front, where dense beds of Patagonian scallop *Zygochlamys patagonica*, one of its primary prey, are found (Lasta & Bremec 1998). Further information is needed to confirm the importance of the area for the reproduction of the species.

Egg cases in lower densities were also found in the area between 2009–2014 for the White-dotted Skate, Patagonian Skate, and Smallthorn Sandskate (Vázquez et al. 2016). Further information is needed to confirm the importance of the area for the reproduction of these species.

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