





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

CENTRAL SAN MATÍAS GULF ISRA

South American Atlantic Region

SUMMARY

Central San Matías Gulf is located in the Río Negro Province of Argentina. It encompasses the northwest and central part of the semi-enclosed San Matías Gulf. The area is characterised by a continental shelf with depths exceeding 200 m. The area is influenced by two gyres and a thermohaline front enhanced by tides and regional winds. Within the area there are: **threatened species**, **range-restricted species**, and **undefined aggregations** (La Plata Skate *Atlantoraja platana*).

CRITERIA

Criterion A – Vulnerability; Criterion B – Range Restricted; Sub-criterion C5 – Undefined Aggregations





DESCRIPTION OF HABITAT

Central San Matías Gulf is located in the Río Negro Province of Argentina. It encompasses the northwest and central part of the semi-enclosed San Matías Gulf. This is the second largest gulf in Argentina and covers 19,700 km² (Gagliardini & Rivas 2004). The area is characterised by a continental shelf with depths exceeding 200 m (Coller 2012). The area is influenced by two gyres: a cyclonic gyre in the north and an anticyclonic gyre in the south, which drive the inflow of cooler, less saline water from the south and the outflow of warmer, saltier water to the north (Piola & Rivas 1988). From October-March, enhanced by tides and regional winds, a thermohaline front divides the gulf into two areas, with the northern sector having higher salinity and temperature but lower primary productivity (Gagliardini & Rivas 2004).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 50-220 m based on the depth range of Qualifying Species and the bathymetry in 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 Endangered La Plata Skate (Pollom et al. 2020).

CRITERION B - RANGE RESTRICTED

Central San Matías Gulf holds the regular and predictable presence of the La Plata Skate as a resident range-restricted species.

Historical data indicate that La Plata Skate has a year-round presence in the area and was one of the most frequently landed skate species between 2007-2009 in the San Matías Gulf, accounting for 34.5% of the relative abundance in commercial landings for skates (Estalles et al. 2011). The species completes its entire life cycle within the San Matías Gulf, with all life stages documented (Coller 2012).

Additionally, La Plata Skate is reported from the area based on standardised bottom trawl surveys conducted in the Gulf of San Matías during 10-13 days per year in October, November, or December between 2006-2024 (CONDROS-CIMAS unpubl. data 2025). Sampling was carried out at 43 stations across the entire San Matías Gulf (CONDROS-CIMAS unpubl. data 2025). A bottom trawl net with a 20.5 m upper headline and an internal codend liner with a mesh size of less than 20 mm was used for 30-minute hauls. A total of 499 individuals (51.7%) were captured in the area, out of 965 in the broader region during the study period (CONDROS-CIMAS unpubl. data 2025). Annual captures in the area were documented in 2006 (n = 114 individuals), 2007 (n = 60), 2016 (n = 264), 2018 (n = 54), and 2024 (n = 7) (CONDROS-CIMAS unpubl. data 2025). The number of individuals per set ranged from 1-167 (mean = 19.9). Additionally, in 2022 and 2023, La Plata Skate was also recorded in shrimp fisheries in the area on eight occasions (CONDROS-CIMAS unpubl. data 2025).

La Plata Skate is distributed across the Patagonian Shelf and South Brazil Shelf Large Marine Ecosystems (LMEs). However, it is primarily encountered in the San Matías Gulf within the Patagonian Shelf LME (Estalles et al. 2011; Coller 2012; Sabadin 2018).

SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

Central San Matías Gulf is an important area for undefined aggregations of one ray species.

Skates are known to aggregate, with temporal changes in aggregations related to sex and life-stage segregations (Swain & Benoît 2006; Frisk 2010; Hoff 2010). Skate aggregations are usually related to high density areas where large catch quantities occur (Bizzarro et al. 2014).

Between 2006–2024, La Plata Skate was captured in aggregations during standardised bottom trawl surveys conducted in the Gulf of San Matías during 10–13 days per year in October, November, or December and monitored by scientific observers onboard the vessels (CONDROS-CIMAS unpubl. data 2025). Trawling surveys lasted 30 minutes using a bottom trawl net with a 20.5 m upper headline and an internal codend liner with a mesh size of less than 20 mm.

La Plata Skate was captured in 116 out of 191 recorded hauls (61%) across the San Matías Gulf, totalling 965 individuals. Most hauls containing La Plata Skate (74%) captured between one and nine individuals, while 30 hauls (26%) reported captures of 10-167 individuals across the entire Gulf. Of these, 13 hauls occurred within the area, that presented the highest aggregation density (based on kernel density analysis), accounting for 43% of hauls with more than ten individuals. From the 499 individuals captured within the area, 469 were recorded within aggregations (haul with more than ten individuals). A total of 13 aggregations were captured ranging from 10-167 individuals (mean= 36; SD= 35.7), in 2006 (n = 4 aggregations), 2007 (n = 2), 2016 (n = 5), and in 2018 (n = 2) (CONDROS-CIMAS unpubl. data 2025). Further information is needed to confirm the function and nature of these aggregations.

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QUALIFYING SPECIES

| Scientific Name | Common Name | IUCN Red List Category | Global Depth Range (m) | ISRA Criteria/Sub-criteria Met | | | | | | | | |
|---------------------|----------------|---------------------------|------------------------------|--------------------------------|---|----|----|----|----|----|----|----|
| | | | | Α | В | Cı | C2 | C3 | C4 | C5 | Dı | D2 |
| RAYS | | | | | | | | | | | | |
| Atlantoraja platana | La Plata Skate | EN | 0-320 | Х | Х | | | | | Х | | |



SUPPORTING SPECIES

| Scientific Name | Common Name | IUCN Red List Category | | | | | | |
|----------------------------|----------------------------|---------------------------|--|--|--|--|--|--|
| SHARKS | | | | | | | | |
| Galeorhinus galeus | Торе | CR | | | | | | |
| Mustelus schmitti | Narrownose Smoothhound | CR | | | | | | |
| Notorynchus cepedianus | Broadnose Sevengill Shark | VU | | | | | | |
| RAYS | - | | | | | | | |
| Atlantoraja castelnaui | Spotback Skate | CR | | | | | | |
| Atlantoraja cyclophora | Eyespot Skate | EN | | | | | | |
| Sympterygia bonapartii | Smallnose Fanskate | NT | | | | | | |
| Zearaja brevicaudata | Shorttail Yellownose Skate | VU | | | | | | |
| CHIMAERAS | | | | | | | | |
| Callorhinchus callorynchus | American Elephantfish | VU | | | | | | |

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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