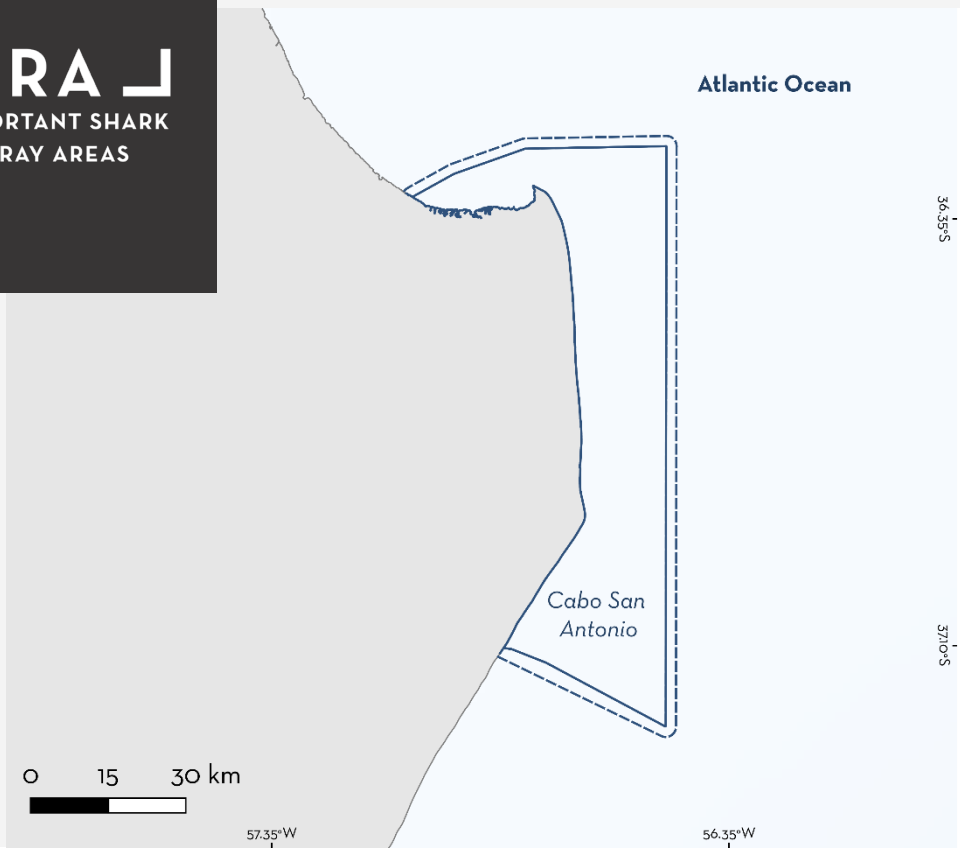
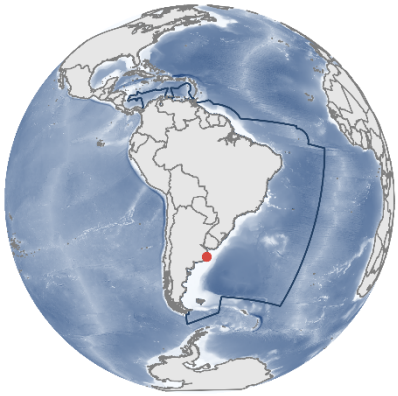
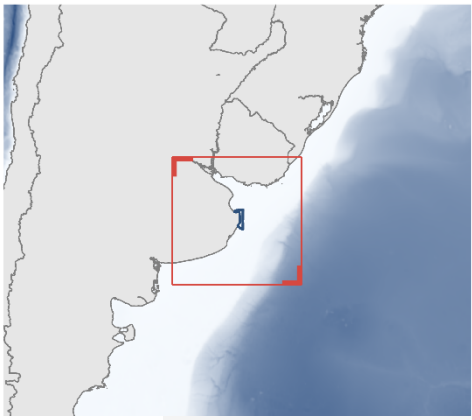
ISRA
IMPORTANT SHARK AND RAY AREAS







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

CABO SAN ANTONIO ISRA

South American Atlantic Region

ARGENTINA
URUGUAY

0–25 metres

2,381.8 km²

SUMMARY

Cabo San Antonio is located in the Joint Regime Area of Argentina and Uruguay. It is situated at the southern limit of Río de La Plata. The area is characterised by turbid waters and underwater dunes. It is influenced by neighbouring estuarine and marine systems such as the Río de la Plata Plume. This area overlaps with the Bahía de Samborombón and Punta Rasa Key Biodiversity Area. Within the area there are: **threatened species** (e.g., Angular Angelshark *Squatina guggenheim*); **range-restricted species** (e.g., Narrownose Smoothhound *Mustelus schmitti*); and **reproductive areas** (e.g., Broadnose Sevengill Shark *Notorynchus cepedianus*).

CRITERIA

Criterion A – Vulnerability; Criterion B – Range Restricted;
Sub-criterion C1 – Reproductive Areas

DESCRIPTION OF HABITAT

Cabo San Antonio is located in the Joint Regime Area of Argentina and Uruguay. It is situated at the southern limit of Río de La Plata (Flanders Marine Institute 2023). The area stretches along the shorefront from Faro San Antonio to Pinamar. It is characterised by turbid waters and substrates with underwater dunes (Guerrero et al. 2010). The area is influenced by seasonal differences, with warmer and fresher water during the warm months (16.6 ± 2.7 ºC, 28.04 ± 2.69 ups) compared to the colder and saltier waters during the cold months (10.1 ± 2.1 ºC, 32.37 ± 2.72 ups) (Guerrero et al. 2010; Jaureguizar et al. 2015). Other environmental conditions, such as salinity and turbidity are highly influenced by neighbouring estuarine and marine systems (Jaureguizar et al. 2016). The location of the Río de la Plata plume (i.e., freshwater with high turbidity) across the South Atlantic Coastal System exhibits significant seasonal and inter-annual variation. This variation is associated not only with the interaction between the shelf water masses and the discharge pattern of the plume but is also highly influenced by wind seasonality (Jaureguizar et al. 2023). The minimum southward extension of the plume occurs near Las Toninas when outflow wind stress from northwest to northeast direction is weak (~6.5 m/s) and freshwater discharge is low (~19 000 m^3/s) (Jaureguizar et al. 2015).

This area overlaps with the Bahía de Samborombón y Punta Rasa Key Biodiversity Area (KBA 2025).

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (0 m) to 25 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERÍON A – VULNERABILITY

Three Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. These are the Critically Endangered Narrownose Smoothhound (Pollom et al. 2020), the Endangered Angular Angelshark (Oddone et al. 2019), and the Vulnerable Broadnose Sevengill Shark (Finucci et al. 2020).

CRITERÍON B – RANGE RESTRICTED

Cabo San Antonio holds the regular and predictable presence of the Narrownose Smoothhound and Angular Angelshark as resident range-restricted species. These species have been reported from the area in monitoring surveys of the small-scale gillnet fishery undertaken between 2008–2014 (Jaureguizar et al. 2015, 2024) and bottom trawl sets from research cruises in 2024 (Belleggia 2024). Records of the two species from this area and El Rincón to the south are highest compared to other areas along the Argentinian coast highlighting its importance.

Between 2008–2014, catch data were collected through a monthly monitoring program of landings, conducted from September–February, with surveys spanning eight days each month from a small-scale fishery using gillnets (2 m high and 90 mm stretched mesh with lengths between 375–691.6 m) in the area (n = 592 fishing trips) (Jaureguizar et al. 2015, 2024). During the surveys, sharks were counted, their total length (TL) recorded, and fishers were interviewed to gather information on net characteristics, fishing effort, and fishing locations (Jaureguizar et al. 2015, 2024). The catch-per-unit-effort (CPUE) was calculated as the number of individuals landed per gillnet, standardised to a 100 m net length and a 24-hour soak time.

Between 2008–2014, 26,540 Narrownose Smoothhound were recorded (85% of the shark and ray catch in 592 fishing trips). This was one of the four most landed fish (across all 38 recorded species; Jaureguizar et al. 2015, 2024). Additionally, this area had the highest captures of this species (up to 98.6 tons of annual catch in a spatial resolution of 0.25 degrees) in the north of Argentina in coastal fisheries (vessels measuring between 18–25 m long) between 2016–2023 (Colonello et al. 2024). The Narrownose Smoothound is only found within the Patagonian Shelf Large Marine Ecosystem (LME) and South Brazil Shelf LME.

Between 2008–2014, 1,327 Angular Angelshark were recorded in this area (~5% of the shark and ray catch in 592 fishing trips). This was also one of the four most recorded fish species (Jaureguizar et al. 2015, 2024). Additionally, during a research campaign in March 2024, trawling was conducted for 15 minutes at an average speed of four knots, covering approximately one nautical mile in this area and adjacent waters. The catch of each collected species was recorded in kilograms and expressed as relative abundance per haul (t/nm^2). This area exhibited the highest abundances of Angular Angelshark during the survey, with two of the three hauls showing the highest densities, reaching 875.3 kg/km^2 (Belleggia 2024). The Angular Angelshark is only found within the Patagonian Shelf and South Brazil Shelf LMEs.

SUB-CRITERÍON C1 – REPRODUCTIVE AREAS

Cabo San Antonio is an important reproductive area for two shark and one ray species.

Between 2008–2014, catch data for the Broadnose Sevengill Shark, Angular Angel Shark, and Smallnose Fanskate were collected through a monthly monitoring program (conducted from September–February, with surveys spanning eight days each month) of landings from a small-scale fishery using gillnets (2 m high and 90 mm stretched mesh with lengths between 375–691.6 m) in the area (n = 592 fishing trips) (Jaureguizar et al. 2022 2023). During the surveys, sharks were counted, their total length (TL) recorded, and fishers were interviewed to gather information on net characteristics, fishing effort, and fishing locations (Jaureguizar et al. 2022, 2023). The CPUE was calculated as the number of individuals landed per gillnet, standardised to a 100 m net length and a 24-hour soak time.

Between 2008–2014, a total of 379 (94%) out of 403 Broadnose Sevengill Sharks captured in the area were identified as neonates or young-of-the-year (YOY) (Jaureguizar et al. 2023). These animals measured between 35–99 cm TL. Size-at-birth for the species in the region is ~40.73 cm TL, and maturity is reached at ~170–190 cm TL for males and females respectively (Irigoyen et al. 2018; Jaureguizar et al. 2022). This indicates that the size distribution was dominated by YOY (Jaureguizar et al. 2022, 2023). Broadnose Sevengill Shark YOY were recorded in 2008–2009 (n = 33), 2009–2010 (n = 41), 2010–2011 (n = 48), 2011–2012 (n = 218), 2012–2013 (n = 31), and 2013–2014 (n = 8) (Jaureguizar et al. 2023). CPUE varied from 0.056 ± 0.122 ind/100 m net * 24 h in 2013–2014, to 0.637 ± 2.489 ind/100 m net * 24 h in 2008–2009, with the highest CPUE occurring in April (mean CPUE: 0.28 ind/100 m net * 24 h) and December (mean CPUE: 0.23 ind/100 m net * 24 h) (Jaureguizar et al. 2023). In addition, between 2010–2022, 2,588 reports of Broadnose Sevengill Sharks along the coast of Argentina were compiled from published and unpublished research literature, social media, biodiversity repositories, commercial fishing, and research campaigns (De Wysiecki 2024). Only records with date, TL, and capture location coordinates (n = 1,981) were used to determine the distribution of neonates (n = 405) measuring 34–50 cm TL (De Wysiecki 2024; De Wysiecki et al. 2025). There were at least 200 reports of neonate Broadnose Sevengill Sharks from this area, reported from October–April. This area was highlighted as a nursery for the species based on the three criteria used to define nursery areas (Heupel et al. 2007; Jaureguizar et al. 2023). Parturition

followed a seasonal pattern, with neonates recorded annually from September–May and exhibited a higher abundance of neonates compared to adjacent areas, highlighting its role as a nursery ground (Jaureguizar et al. 2023).

Between 2011–2013, a total of 30 neonate and 60 YOY (6.3% of total individuals) Angular Angel Sharks were captured in the area in the same artisanal fishery with animals measuring between 22.5–36 cm TL (Milessi et al. 2019; AJ Jaureguizar unpubl. data 2025). They were classified as neonate/YOY based on the presence of a yolk-sac wound, open for neonates and closed for YOY (Milessi et al. 2019). In this region, size-at-birth for the species ranges from 20–26.5 cm TL, while size-at-maturity is 70 cm TL (Colonello et al. 2007; Awruch et al. 2008). Juvenile and adult females and males were also captured in large numbers (n = 1,347 individuals) in the area although pregnancy was not actively recorded between 2011–2013 (AJ Jaureguizar unpubl. data 2025). Neonates and YOY (n = 64 stomachs contents) feed in the area mostly on crustaceans based on the 68.7% Index of Relative Importance (IRI) used to assess the relative importance of different prey items in a predator's diet (Milessi et al. 2019). This area has the highest recorded number of neonates and YOY in the southern part of the Río de La Plata.

Between 2011–2013, a total of 17 neonate and 61 YOY Smallnose Fanskates were captured in the area, measuring between 20.1–29 cm TL. They were classified as neonate/YOY based on the presence of a yolk-sac wound, open for neonates and closed for YOY (Milessi et al. 2019). Size of neonates are 13–13.4 cm TL (Jañez et al. 2018), while size-at-maturity is 51–74 cm TL for females and 50–69 cm TL for males (Pollom et al. 2020). Additionally, during a research campaign in March 2024, trawling was conducted with hauls lasting 15 minutes at an average speed of four knots, covering approximately one nautical mile in the area and adjacent waters. The catch of each collected species was recorded in kg and expressed as relative abundance per haul (t/nm^2). Of the 83 individuals captured, 77 were neonates. YOY measured 20–35 cm disc width (DW). More than 75% of the hauls contained individuals from this area (Belleggia 2024). Although neonates, YOY, and juveniles comprised the 83.1% of 104 individuals captured, during this period, adult individuals (16.9%) were also captured reaching 52.2 cm DW (Belleggia 2024). This area has the highest recorded number of neonates and YOY in the southern part of the Río de La Plata.

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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												
Mustelus schmitti	Narrownose Smoothhound	CR	2–195	X	X							
Notorynchus cepedianus	Broadnose Sevengill Shark	VU	0–570	X		X						
Squatina guggenheim	Angular Angelshark	EN	7–150	X	X	X						
RAYS												
Sympterygia bonapartii	Smallnose Fanskate	NT	0–500			X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Carcharhinus brachyurus	Copper Shark	VU
Carcharias taurus	Sandtiger Shark	CR
Galeorhinus galeus	Tope	CR
Schroederichthys bivius	Narrowmouth Catshark	LC
Sphyrna lewini	Scalloped Hammerhead	CR
Sphyrna zygaena	Smooth Hammerhead	VU
Squalus acanthias	Spiny Dogfish	VU
Squatina occulta	Hidden Angelshark	CR
RAYS		
Atlantoraja castelnaui	Spotback Skate	CR
Atlantoraja cyclophora	Eyespot skate	EN
Discopyge tschudii	Apron Numbfish	LC
Myliobatis freminvillei	Bullnose Eagle Ray	VU
Myliobatis goodei	Southern Eagle Ray	VU
Myliobatis ridens	Shortnose Eagle Ray	CR
Psammobatis bergi	Blotched Sandskate	LC
Psammobatis extenta	Zipper Sandskate	LC
Pseudobatos horkelii	Brazilian Guitarfish	CR
Rioraja agassizii	Rio Skate	VU
Sympterygia acuta	Bignose Fanskate	CR
Zapteryx brevirostris	Shortnose Guitarfish	EN
CHIMAERAS		
Callorhinchus callorynchus	American Elephantfish	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 Cabo San Antonio is an important area for undefined aggregations of one shark species.

In September 2013, a single fishing event using a 500 m long bottom gillnet in this area captured 97 juvenile Broadnose Sevengill Sharks. This catch comprised 65 females measuring 105–201 cm TL and 32 males measuring 112–190 cm TL (De Wysiecki et al. 2018). Additionally, local ecological knowledge highlights higher abundances of Broadnose Sevengill shark in nearshore waters within the area during the start of the spring (De Wysiecki et al. 2018). Further information is required to determine the importance of the area for undefined aggregations of the species.

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