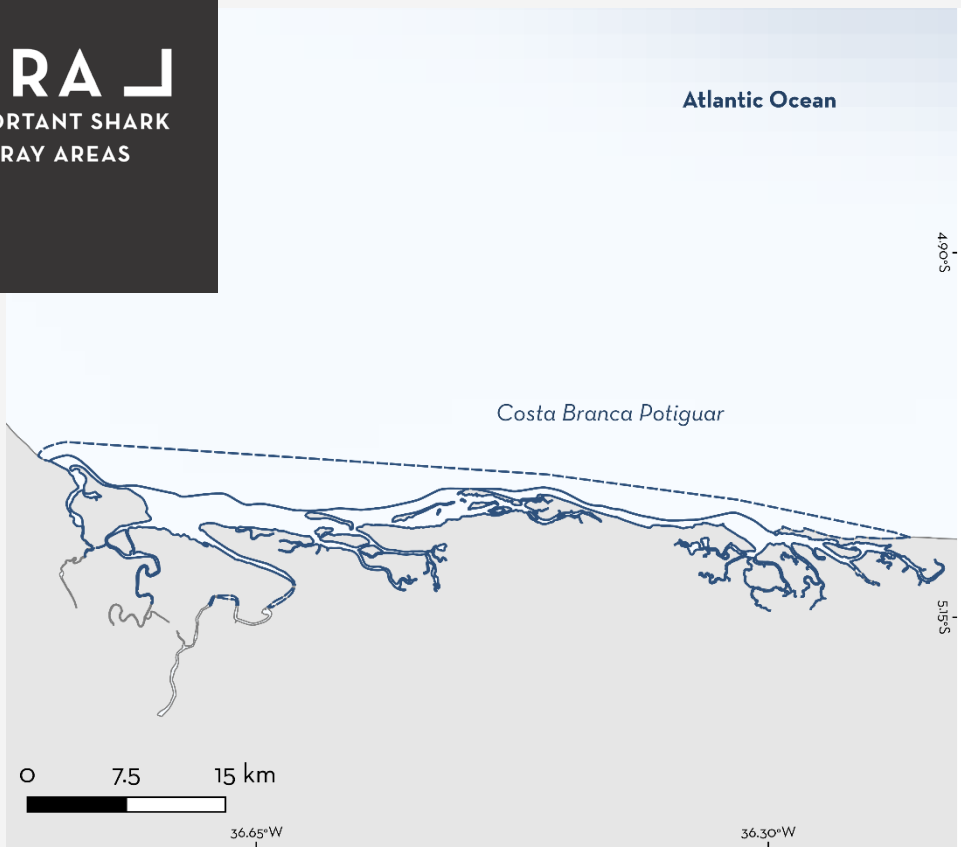
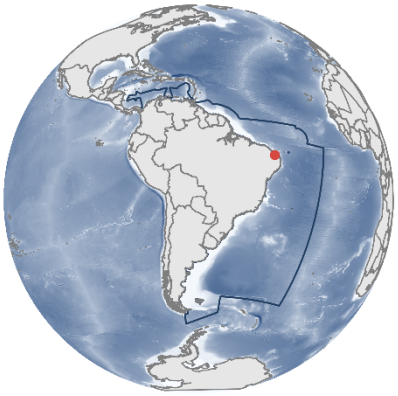
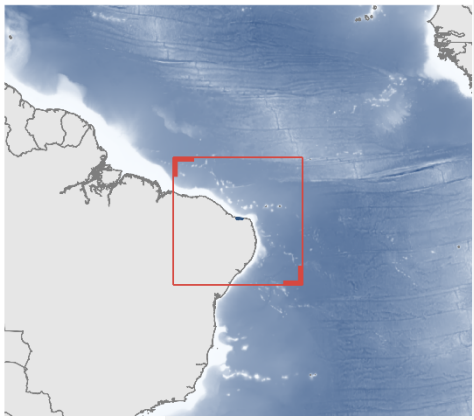
ISRA
IMPORTANT SHARK AND RAY AREAS







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

COSTA BRANCA POTIGUAR ISRA

South American Atlantic Region

BRAZIL

0-60 metres

102.3 km²

SUMMARY

Costa Branca Potiguar is located in Rio Grande do Norte State, northeast Brazil. This area is characterised by tidal flats, estuaries, mangroves, and sandy substrates and is influenced by dunes and strong winds. Tidal currents penetrate the channels over long distances from the mouth, making the estuary water hypersaline. Within this area there are: **threatened species** and **undefined aggregations** (American Cownose Ray *Rhinoptera bonasus*).

CRITERIA

Criterion A – Vulnerability; Sub-criterion C5 – Undefined Aggregations

DESCRIPTION OF HABITAT

Costa Branca Potiguar is located in Rio Grande do Norte State, northeast Brazil. This area is characterised by tidal flats, estuaries, mangroves, and sandy substrates and is influenced by dunes and strong winds (Da Silva Costa et al. 2022). The area experiences semidiurnal and mesotidal regimes. Freshwater input into the estuary occurs mainly during the rainy season, from March–July, but low precipitation, high temperature, and high evaporation rates result in a negative water balance. Thus, tidal currents penetrate the channels over long distances from the mouth, making the estuary water hypersaline (Da Silva Costa et al. 2022).

This Important Shark and Ray Area is benthic and pelagic and is delineated from surface waters (0 m) to 60 m based on the global depth range of the Qualifying Species globally.

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 American Cownose Ray (Carlson et al. 2020).

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

Costa Branca Potiguar is an important area for undefined aggregations of one ray species.

Aggregations of *Rhinoptera* spp. (measuring an average of ~80 cm disc width [DW]) are reported by fishers to occur regularly within the area between February–May, with animals usually swimming in schools within the Tubarão River (L Werner pers. obs. 2018–2024). Between 2023–2024, opportunistic monitoring of artisanal fishery landings occurred twice in the area. In February 2023, one aggregation of ~800 *Rhinoptera* spp. with animals averaging 76 cm DW was landed from gillnet fisheries. Of those, 68 individuals were analysed, and all confirmed as American Cownose Rays (L Werner unpubl. data 2023). In March 2024, an aggregation of ~250 *Rhinoptera* spp. was observed. Of these, 40 animals were taxonomically assessed as American Cownose Rays (L Werner unpubl. data 2024). Between 2023–2024, an additional three aggregations of 2,000–4,000 kg (no counts available) were captured by fishers, but individuals could not be identified to the species level (L Werner unpubl. data 2024). In April 2024, an additional aggregation of >300 individuals within a river in this area was recorded and shared on social media. While the American Cownose Ray and Brazilian Cownose Ray overlap in their distribution in this area, these can only be distinguished by counting the series of toothplates (Last et al. 2016). Despite the limited species-specific information available from fisher observations, across all landing site sampling events, only American Cownose Rays have been reported from this area. Furthermore, Costa Branca Potiguar is a more important area for undefined aggregations of American Cownose Rays than adjacent areas. Landings of artisanal fisheries operating at Caiçara do Norte, east of this area, were monitored monthly between September 2003–August 2004, and January 2008–July 2009. Only 14 American Cownose Rays were recorded, and no Brazilian Cownose Rays were recorded (Yokota & Lessa 2006; Lessa et al. 2015). Further information is required to determine the nature and function 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								
				A	B	C1	C2	C3	C4	C5	D1	D2
RAYS												
Rhinoptera bonasus	American Cownose Ray	VU	0–60	X						X		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Rhizoprionodon porosus	Caribbean Sharpnose Shark	VU
RAYS		
Aetobatus narinari	Whitespotted Eagle Ray	EN
Hypanus berthalutzae	Lutz's Stingray	VU
Hypanus guttatus	Longnose Stingray	NT
Pseudobatos percellens	Chola Guitarfish	EN

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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