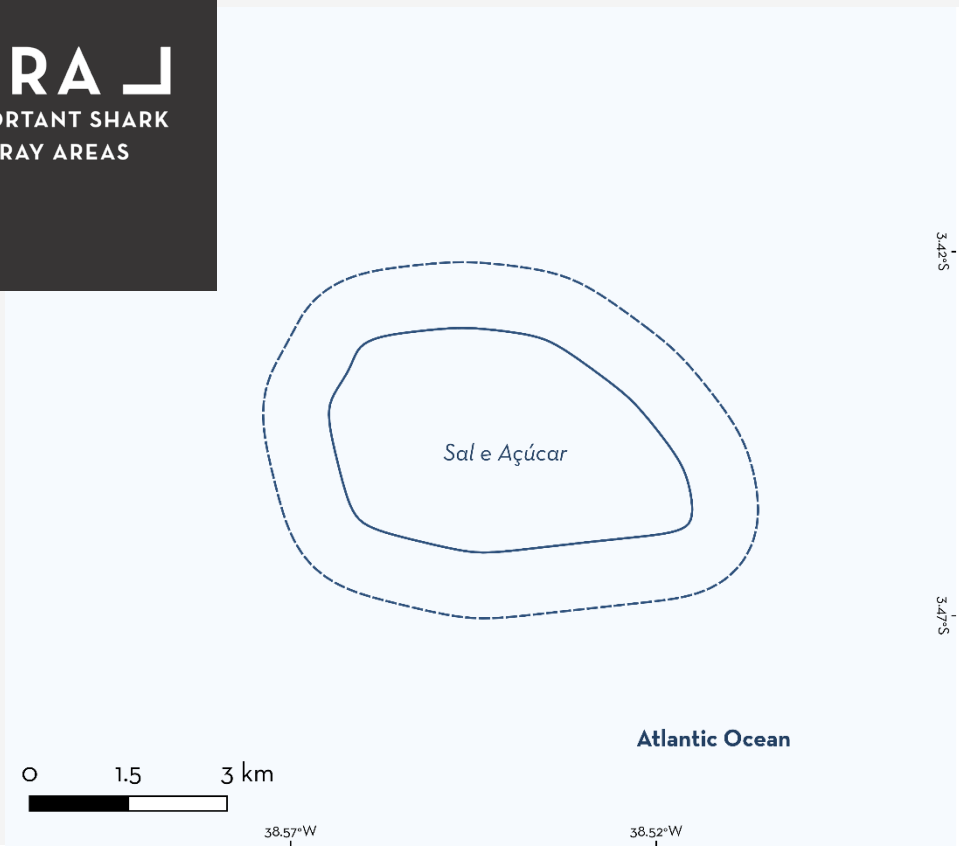
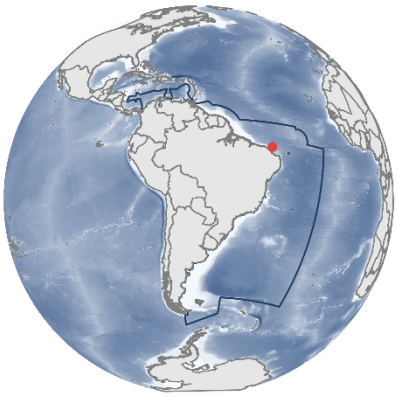
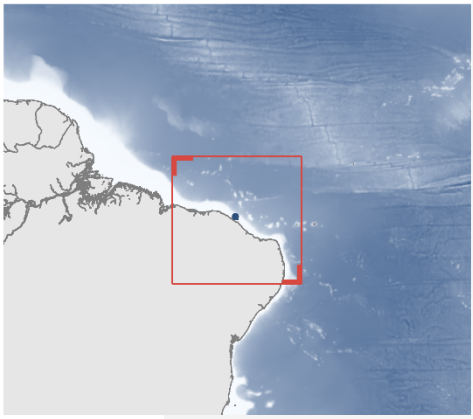
ISRA
IMPORTANT SHARK AND RAY AREAS







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

SAL E AÇÚCAR ISRA

South American Atlantic Region

BRAZIL

0–30 metres

14.64 km²

SUMMARY

Sal e Açúcar is located in the Ceará state of Brazil. The area is situated on the continental shelf and the habitat is characterised by a sandy substrate. It is influenced by sediment transportation from wind intensity and the rainy season. Within this area there are: **threatened species** and **range-restricted species** (Lutz's Stingray *Hypanus berthalutzae*).

CRITERIA

Criterion A – Vulnerability; Criterion B – Range Restricted

DESCRIPTION OF HABITAT

Sal e Açúcar is located in the Ceará state of Brazil. The area is situated on the continental shelf and the habitat is characterised by sandy substrate and the presence of two shipwrecks located 900 m apart from each other. During the first half of the year (austral summer), coastal hydrodynamics are more stable, characterised by weaker longshore drift, reduced aeolian sediment transport due to lower wind intensity, and increased moisture retention in sandy substrates, leading to increased underwater visibility (Pantalena 2017; Pantalena et al. 2020). In contrast, in the second half of the year, the dry season is marked by decreased precipitation and intensified trade winds, which enhance sediment resuspension and transport, reducing water clarity (Pantalena 2017; Pantalena et al. 2020).

This Important Shark and Ray Area is benthic and pelagic and is delineated from surface waters (0 m) to 30 m based on the bathymetry of 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 Vulnerable Lutz's Stingray (Charvet et al. 2020).

CRITERION B – RANGE RESTRICTED

This area holds the regular presence of the Lutz's Stingray as a resident range-restricted species. Lutz's Stingrays are regularly and predictably observed year-round in this area. Between 2012–2024, between 3–20 individuals were observed per dive in all recreational dives conducted twice a year in this area. Lutz's Stingrays have been observed resting in this area mainly on the sandy substrate and on top of or near the shipwrecks. Individuals are observed solitary, in pairs, or in aggregations of up to ~10. This area is where Lutz's Stingrays are observed most frequently and in the highest numbers among the dive sites within the Ceará region (JAM Araújo pers. obs. 2024), highlighting its importance for this range-restricted species. Additional citizen science records available through social media support the occurrence of this species in this area in 2022 (at least twelve individuals resting together), and in 2024 (~15 individuals in one dive). Considering the species' behaviour (buried in sandy substrates) and preferred diving locations, the only individuals regularly seen by divers are the ones near wrecks found in the area. However, the records of animals away from the wrecks indicate that this area might shelter a larger number of individuals on the sandy substrates. The species occurs in the South Brazil Large Marine Ecosystem (LME), the East Brazil LME, and only marginally in the North Brazil LME.

Acknowledgments

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This factsheet has undergone review by the ISRA Independent Review Panel prior to its publication.

This project was funded by the Shark Conservation Fund, a philanthropic collaborative pooling expertise and resources to meet the threats facing the world's sharks and rays. The Shark Conservation Fund is a project of Rockefeller Philanthropy Advisors.

Suggested citation

IUCN SSC Shark Specialist Group. 2025. Sal e Açúcar ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

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												
Hypanus berthalutzae	Lutz's Stingray	VU	0–100	X	X							

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
RAYS		
Hypanus marianae	Large-eye Stingray	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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