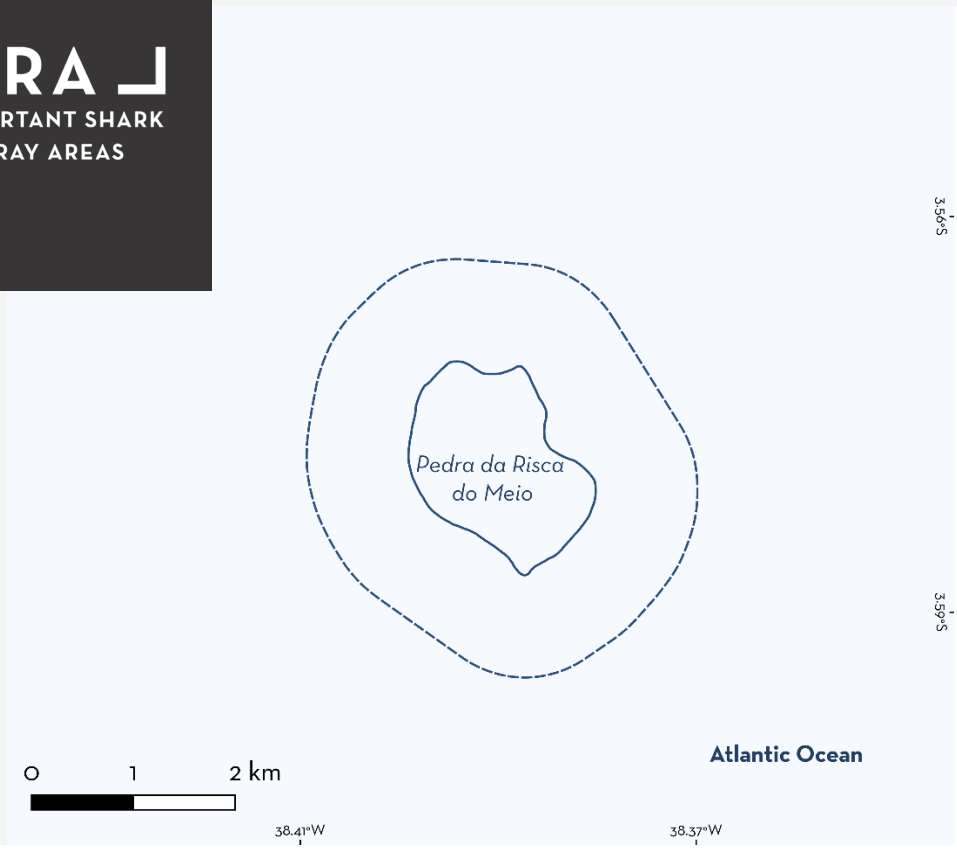
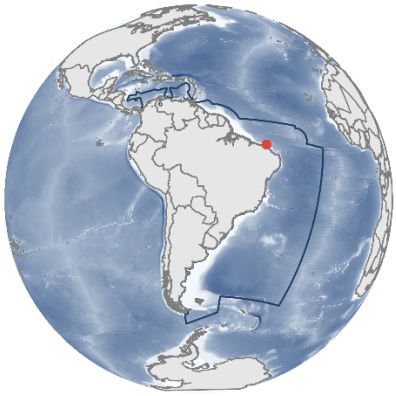
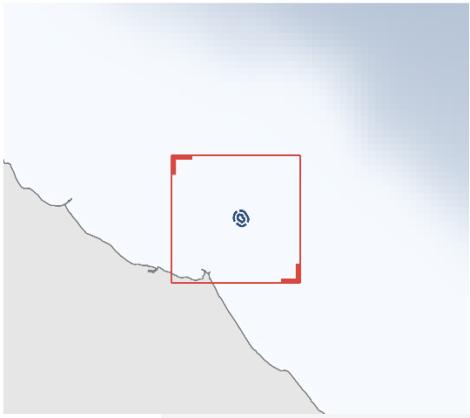
ISRA
IMPORTANT SHARK AND RAY AREAS







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

PEDRA DA RISCA DO MEIO ISRA

South American Atlantic Region

BRAZIL

0–30 metres

2.45 km²

SUMMARY

Pedra da Risca do Meio is located off Fortaleza, State of Ceará, northeastern Brazil. It is situated 18.5 km from the coastline and is characterised by sandy substrates, coral reefs, and rocky structures that produce overhangs. There is clear benthic variation with fleshy macroalgae in shallower depths and higher sponge and coral coverage at greater depths. Within this area there are: **threatened species** and **resting areas** (Atlantic Nurse Shark *Ginglymostoma cirratum*).

CRITERIA

Criterion A – Vulnerability; Sub-criterion C3 – Resting Areas

DESCRIPTION OF HABITAT

Pedra da Risca do Meio is located 18.5 km from the coastline of Fortaleza, State of Ceará, Northeastern Brazil. This area comprises part of the largest semi-continuous tropical reef system in the world, that stretches from French Guiana to the northeastern Brazilian coast. This reef complex has unusual environmental conditions for reef-building corals, such as high sedimentation inputs, periodic burials, and moderate water turbidity (Costa et al. 2024). The area is characterised by a seabed with high roughness, with reef structures inserted among patches of sand (Freitas et al. 2019). These characteristics lead to a high degree of spatial heterogeneity, with the benthic cover of fleshy macroalgae, algal turfs, sponges, crustose coralline algae, live coral, unconsolidated sediments, and a rocky substrate (Costa et al. 2024). These vary with depth; at ~17 m there is the shallow reef with macroalgae, with deeper reefs up to 27 m with high algal turf cover, corals, and sponges (Costa et al. 2024).

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and 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 Atlantic Nurse Shark (Carlson et al. 2021).

SUB-CRITERION C3 – RESTING AREAS

Pedra da Risca do Meio is an important resting area for one shark species.

Atlantic Nurse Sharks, particularly juveniles, predictably rest at specific reefs with overhangs and caves within this area during the day (A Pantalena & J Araújo pers. obs. 2025). Animals have been observed resting in groups of up to three individuals across multiple dives at sites within this area (A Pantalena & J Araújo pers. obs. 2025). Between 2015–2025, from December–June, recreational divers undertook up to two dives per week in this area (A Pantalena & J Araújo pers. obs. 2025). They reported Atlantic Nurse Sharks resting in this area in half of the dives undertaken. Animals were observed resting in all months that dives were undertaken (A Pantalena & J Araújo pers. obs. 2025). Further information is required to determine seasonality, if any, of resting behaviour. Atlantic Nurse Sharks have been observed resting in other areas (around shipwrecks) in Brazil, but the most regular and predictable reports of resting animals are made from this area where they are also commonly seen resting alone. The area has national importance as it is the only remaining known location in Brazil where Atlantic Nurse Sharks are known to rest independently of man-made structures (VV Faria pers. obs. 2025).

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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												
Ginglymostoma cirratum	Atlantic Nurse Shark	VU	0–130	X				X				

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
RAYS		
Aetobatus narinari	Whitespotted Eagle Ray	EN
Hypanus berthalutzae	Lutz's Stingray	VU
Hypanus guttatus	Longnose Stingray	NT
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.

SUPPORTING INFORMATION

There are additional indications that this area may be important for one range-restricted ray. The Large-eye Stingray is a resident range-restricted species and was reported by recreational divers within the area between 2015–2025. This species is found within two adjoining Large Marine Ecosystems (LME): the North Brazil Shelf LME and the East Brazil Shelf LME. Further information is required to determine the regularity and predictability of the observation of this species, and the importance of this area in comparison to other locations within its geographic distribution.

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