



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

PERNAMBUCO ISRA

South American Atlantic Region

SUMMARY

Pernambuco is located in northeastern Brazil. The area encompasses a relatively flat portion of continental shelf which is characterised by sandy and muddy substrates with calcareous algae. The area is influenced by relatively weak currents. Within this area there are: **threatened species**, **range-restricted species**, and **reproductive areas** (Smalleyed Round Ray *Urotrygon microphthalmum*).

-	-			
BRAZIL				
-	-			
0–55 metres				
-	-			
2,154 km ²				
-	-			

CRITERIA

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





DESCRIPTION OF HABITAT

Pernambuco is located in northeastern Brazil. The area encompasses a relatively flat portion of continental shelf from Jaboatão dos Guararapes to Barra de Sirinhaém. It is characterised by sandy and muddy substrates with calcareous algae (Kempf 1970). The shelf is mostly influenced by tropical water, with coastal water near the inner shelf around this area. The area is also influenced by weak currents without direction in austral summer, which strengthen and become stronger towards the north in winter. The salinity levels and mean temperature are relatively similar between summer and winter (Domingues et al. 2017).

This Important Shark and Ray Area is benthic and pelagic and delineated from inshore waters (O m) to a depth of 55 m based on the global depth range of the Qualifying Species.

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 Critically Endangered Smalleye Round Ray (Pollom et al. 2019).

CRITERION B - RANGE RESTRICTED

This area holds the regular presence of Smalleye Round Ray as a resident range-restricted species. Smalleye Round Ray have been recorded in the area as incidental catch from shrimp trawl fisheries between February 2010–January 2014 (Santander-Neto et al. 2016; J Santander-Neto unpubl. data 2025). Individuals of multiple life stages (including neonates, pregnant females, and post-partum animals) are regularly and predictably reported from this area. This is the only known area in Brazil where this species is regularly and predictably observed. This species occurs only in the North Brazil Shelf Large Marine Ecosystem (LME), the East Brazil Coast LME, and marginally in the Caribbean Sea LME.

SUB-CRITERION C1 - REPRODUCTIVE AREAS

Pernambuco is an important reproductive area for one ray species.

Between February 2010 and January 2014, 361 Smalleye Round Rays were captured in this area as incidental catch from shrimp trawl fisheries (Santander-Neto et al. 2016), measuring between 4.7-15.4 cm disc width (DW) (J Santander-Neto unpubl. data 2025). Of these, 41 animals (11.6%) were considered neonates measuring <8.2 cm DW. The size-at-birth for this species is 8 cm DW (Last et al. 2016). Neonate Smalleye Round Rays were caught in 2010 (n = 21), 2011 (n = 10), and 2014 (n = 1), and the year-of-capture was not recorded for nine animals. This area is important for reproductive purposes year-round, as neonate/YOY animals were caught in all months (J Santander-Neto unpubl. data. 2025). Additionally, 59 pregnant females were caught across 2010, 2012, and 2013. Throughout the entire survey period, 59 animals were in the post-partum stage (J Santander-Neto unpubl. data. 2025). This is the only known area in Brazil with regular observations of this species at these life stages.



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QUALIFYING SPECIES

Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met								
		87		Α	В	Cı	C2	C3	C4	C5	Dı	D2
RAYS												
Urotrygon microphthalmum	Smalleye Round Ray	CR	0-55	Х	Х	Х						



SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category				
SHARKS						
Carcharhinus leucas	Bull Shark	VU				
Galeocerdo cuvier	Tiger Shark	NT				
Ginglymostoma cirratum	Atlantic Nurse Shark	VU				
RAYS						
Hypanus berthalutzae	Lutz's Stingray	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.



REFERENCES



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