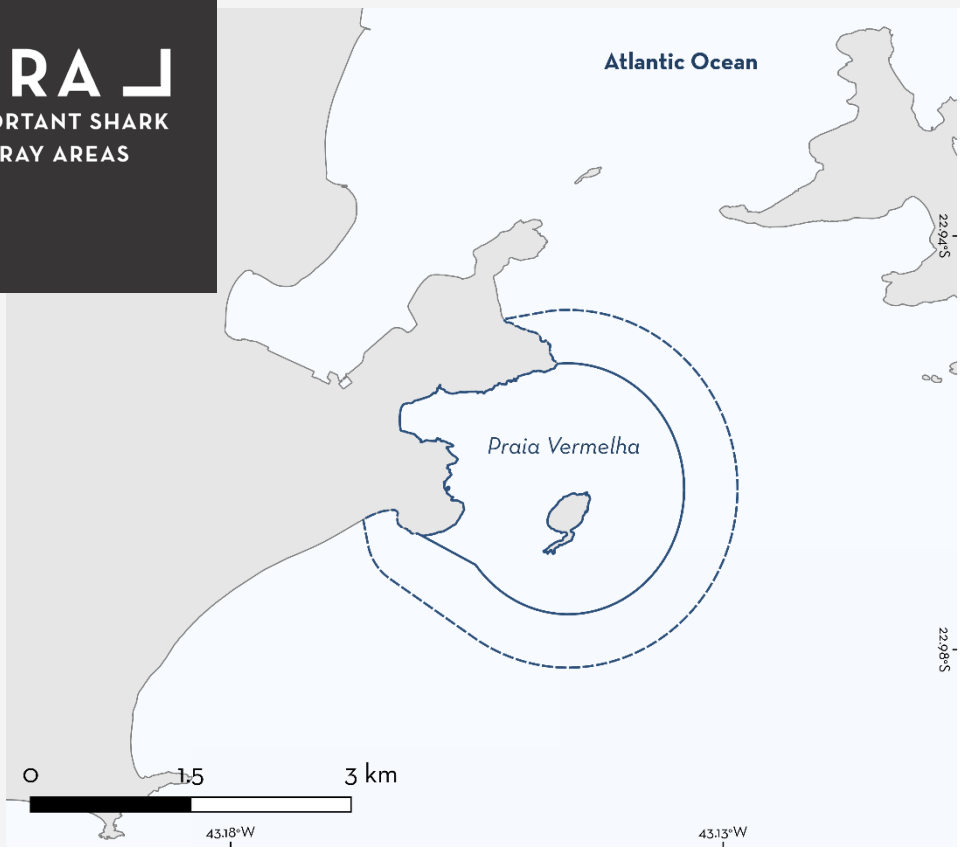
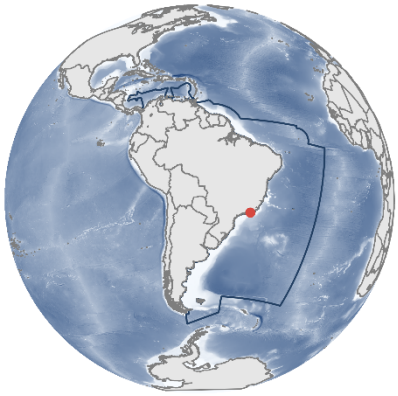
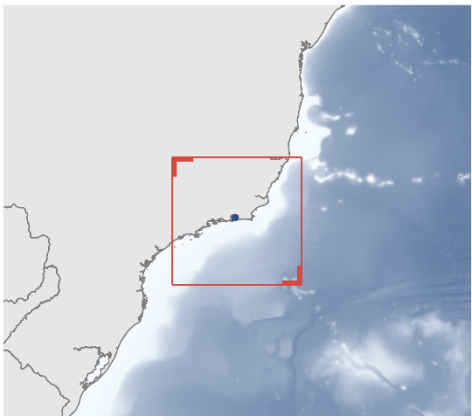
ISRA
IMPORTANT SHARK AND RAY AREAS







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

PRAIA VERMELHA ISRA

South American Atlantic Region

BRAZIL

0–30 metres

4.26 km²

SUMMARY

Praia Vermelha is located in southeast Brazil. The area sits in a transitional zone between the Atlantic Ocean and Guanabara Bay and supports high primary productivity. It is characterised by a sandy substrate interspersed with rocky outcropping. Within this area there are: **threatened species** and **range-restricted species** (Groovebelly Stingray *Dasyatis hypostigma*).

CRITERIA

Criterion A – Vulnerability; Criterion B – Range Restricted

DESCRIPTION OF HABITAT

Praia Vermelha is located in southeast Brazil, in Rio de Janeiro state. The area sits in a transitional zone between the Atlantic Ocean and Guanabara Bay. This positioning results in a significant inflow of organic matter, which supports high primary productivity (Chaves et al. 2018). The area is characterised by a sandy substrate interspersed with rocky outcroppings, providing structural habitat diversity. These static features, combined with dynamic environmental conditions such as tidal currents and upwelling events, can create a productive ecosystem (Silva et al. 2022). The interaction between oceanic waters and organic inputs from the bay shapes the ecological dynamics of the area (Franco & dos Santos 2018).

This Important Shark and Ray Area is benthic and is delineated from the surface (0 m) to 30 m based on the depth range of the Qualifying Species in 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 Endangered Groovebelly Stingray (Pollom et al. 2020).

CRITERION B – RANGE RESTRICTED

This area holds the regular presence of Groovebelly Stingray as a resident range-restricted species. This species has been recorded regularly from artisanal fisheries operating in the area and by divers between 2012–2025 (Amorim & Monteiro-Neto 2016; Araujo et al. 2020; N Araujo & R Gomes pers. obs. 2017–2024). From June 2012 to May 2013, artisanal fisheries operating in 15 locations in the Rio de Janeiro area were monitored, including nearby islands (Amorim & Monteiro-Neto 2016). Groovebelly Stingrays were recorded only in coastal locations including three locations inside Prai Vermelha. Between 2016–2019, fishing activities were monitored at Praia Vermelha, Itaipu (~7 km from the area), and Cabo Frío (~120 km from the area; Araujo et al. 2020). Of 54 surveys conducted, the Groovebelly Stingray was recorded in 26.6% of the fish landings observed at Praia Vermelha with 1–3 individuals recorded per landing event (Araujo 2021; NLF Araujo unpubl. data 2021). Of 35 individuals recorded in the three locations, 33 were observed in this area. Individuals were observed year-round with a higher presence between July–November (Araujo et al. 2020). Additionally, recreational divers report sightings of Groovebelly Stingrays at least once every three dives, with an approximate appearance rate of 33% during night dives (D Araujo, A Macau & M Rebouças pers. comm. 2022–2024). Sightings typically involve a single individual, with a maximum of 10 individuals recorded during a single dive (D Araujo pers. comm. 2024). This species occurs primarily in the South Brazil Large Marine Ecosystem (LME) and marginally in the East Brazil Shelf LME and the Patagonian Shelf LME.

Acknowledgments

Nathan LF Araujo (Instituto Mar Urbano, Universidade Federal do Estado do Rio de Janeiro), Luciano N dos Santos (Universidade Federal do Estado do Rio de Janeiro), Ricardo A Gomes (Instituto Mar Urbano), Manasi da Silva Rebouças (Instituto Mar Urbano, Colônia de Pescadores Z-13), Andrew Macau de Lima (Macau Dive), Diogo de Araujo Silva (Profissão Mergulho), and Emiliano García-Rodríguez (IUCN SSC Shark Specialist Group – ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2025 ISRA Region 05 – South American Atlantic workshop for their contributions to this process.

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. Praia Vermelha 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
SHARKS												
Dasyatis hypostigma	Groovebelly Stingray	EN	0–80	X	X							

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Carcharhinus brevipinna	Spinner Shark	VU
Sphyrna lewini	Scalloped Hammerhead	CR
RAYS		
Gymnura altavela	Spiny Butterfly Ray	EN
Hypanus berthalutzae	Lutz's Stingray	VU
Narcine brasiliensis	Lesser Numbfish	NT
Pseudobatos horkelii	Brazilian Guitarfish	CR
Pseudobatos percellens	Chola Guitarfish	EN
Zapteryx brevirostris	Shortnose 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.

REFERENCES

Amorim RB, Monteiro-Neto C. 2016. Área marinha protegida e a distribuição espacial da pescaria de rede de emalhe em Copacabana, Rio de Janeiro, RJ, Brasil. *Brazilian Journal of Biology* 76: 1–9. https://doi.org/10.1590/1519-6984.06614

Araujo AFL. 2021. Status de conservação e distribuição espacial de elasmobrânquios capturados pela pesca artesanal do Município do Rio de Janeiro. Unpublished Bachelor Thesis, Universidade Federal do Estado do Rio De Janeiro, Rio de Janeiro.

Araujo NLF, Lopes CA, Brito VB, Santos LN dos, Barbosa-Filho MLV, Amaral CRL do, Siciliano S, Hauser-Davis RA. 2020. Artisanally landed elasmobranchs along the coast of Rio De Janeiro, Brazil. *Boletim do Laboratório de Hidrobiologia* 30: 33–53. https://doi.org/10.18764/1981-6421e2020.4

Chaves MCNR, Franco ACS, Seixas LB, Rodrigues da Cruz L, dos Santos LN. 2018. Testing the ecocline concept for fish assemblages along the marine-estuarine gradient in a highly-eutrophic estuary Guanabara Bay, Brazil). *Estuarine, Coastal and Shelf Science* 211: 118–126. https://doi.org/10.1016/j.ecss.2018.02.004

Franco ACS, Santos LN dos. 2018. Habitat-dependent responses of tropical fish assemblages to environmental variables in a marine-estuarine transitional system. *Estuarine, Coastal and Shelf Science* 211: 110–117. https://doi.org/10.1016/j.ecss.2018.02.003

Pollom R, Barreto R, Charvet P, Chiaramonte GE, Cuevas JM, Faria V, Herman K, Montealegre-Quijano S, Motta F, Paesch L, et al. 2020. *Dasyatis hypostigma. The IUCN Red List of Threatened Species* 2020: e.T60154A3090027. https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T60154A3090027.en

Silva ES, De Oliveira DD, Dos Santos FMA, Lins GA. 2022. Correlação entre salinidade, temperatura e pH na área de influência do Porto da Cidade do Rio de Janeiro (Brasil) entre 2016 a 2018. *Revista Sustinere* 10: 218–237. https://doi.org/10.12957/sustinere.2022.56684