

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

QUEIMADA GRANDE ISLAND ISRA

South American Atlantic Region

SUMMARY

Queimada Grande Island is located off the coastline of São Paulo State, southeastern Brazil. The area is characterised by having the southernmost Atlantic coral reef system. The habitat consists of a heterogeneous subtidal substrate which includes rocks, coral reefs, and rhodolite beds. Within this area there are: **threatened species** and **undefined aggregations** (Whitespotted Eagle Ray *Aetobatus narinari*).

CRITERIA

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

_	-
BRAZIL	
_	-
0–22 metre	es
-	-
2.88 km²	
-	-



DESCRIPTION OF HABITAT

Queimada Grande Island is located 32 km off the coastline of São Paulo State, southeastern Brazil. It has the southernmost Atlantic coral reef system (Pereira-Filho et al. 2019). The habitat consists of a heterogeneous subtidal substrate, including rocky reefs formed by boulders associated with fringing coral reefs, a coralline reef plateau covered by living corals, sponges, tunicates, and fleshy algae, and rhodolite beds (Pereira-Filho et al. 2019). The average sea surface temperature ranges from 21.2°C in the austral winter to 26.6°C in the summer (Grillo et al. 2021).

This Important Shark and Ray Area is benthic and pelagic delineated from surface waters (O m) to a depth of 22 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 Whitespotted Eagle Ray (Dulvy et al. 2021).

SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

Queimada Grande Island is an important area for undefined aggregations of one ray species.

Between 2018-2024, six aggregations of Whitespotted Eagle Rays, with the maximum of 45 individuals in a single group, were observed by divers in the area (LD Chelotti unpubl. data 2024). During 2023 and 2024, a citizen science program compiled shark and ray sightings through interviews with dive masters' and recreational divers visiting the area. To avoid double counting, each survey value corresponded to the maximum number of individuals per species reported by all divers on the same dive boat. During this period, 45 surveys were conducted in the area and Whitespotted Eagle Rays were reported in 43 (95.6%). Two aggregations were reported (n = 6 individuals in November 2023 and n = 10 in December 2023; LD Chelotti unpubl. data. 2024). During interviews, divers also reported four aggregations in the area from previous years (n = 45 individuals in July 2018, n = 7 in July 2020, n = 29 in November 2020, and n = 30 in July 2022). Queimada Grande Island has the most regular and largest aggregations of Whitespotted Eagle Ray on the south and central coast of São Paulo. Based on reports from the citizen science project, there has only been one record of an aggregation of this species outside this area (LD Chelotti unpubl. data 2024). Whitespotted Eagle Rays have been reported to swim in synchrony and engage in foraging activity when within these aggregations (LD Chelotti person. comm. 2024). Further information is required to determine the nature and function of these aggregations.



Acknowledgments

Luiza de David Chelotti (Universidade Estadual Paulista), Fabio dos Santos Motta (Universidade Federal de São Paulo), Otto Bismarck F Gadig (Universidade Estaudal Paulista), Ryan Charles (IUCN SSC Shark Specialist Group – ISRA Project), and Vanessa Bettcher Brito (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. Queimada Grande Island 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								
			-	Α	В	Cı	C2	C3	C4	C5	Dı	D2
RAYS												
Aetobatus narinari	Whitespotted Eagle Ray	EN	0-60	Х						Х		



SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category				
RAYS						
Bathytoshia centroura	Roughtail Stingray	VU				
Dasyatis hypostigma	Groovebelly Stingray	EN				
Gymnura altavela	Spiny Butterfly Ray	EN				
Hypanus berthalutzae	Lutz's Stingray	VU				
Myliobatis freminvillei	Bullnose Eagle Ray	VU				
Pseudobatos percellens	Chola Guitarfish	EN				

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



Dulvy NK, Carlson J, Charvet P, Ajemian MJ, Bassos-Hull K, Blanco-Parra MP, Chartrain E, Derrick D, Dia M, Diop M, et al. 2021. Aetobatus narinari (amended version of 2021 assessment). The IUCN Red List of Threatened Species 2021: e.T42564343A201613657. https://dx.doi.org/10.2305/IUCN.UK.2021-2.RLTS.T42564343A201613657.en

Grillo AC, Candido CF, Giglio VJ, Longo GO. 2021. Unusual high coral cover in a Southwestern Atlantic subtropical reef. *Marine Biodiversity* 51. https://doi.org/10.1007/s12526-021-01221-9

Pereira-Filho GH, Shintate GS, Kitahara MV, Moura RL, Amado-Filho GM, Bahia RG, Moraes FC, Neves LM, Francini CLB, Gibran FZ, et al. 2018. The southernmost Atlantic coral reef is off the subtropical island of Queimada Grande (24°S), Brazil. *Bulletin of Marine Science* 95: 277–287. https://doi.org/10.5343/bms.2018.0056