

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

# MONTÃO DE TRIGO ISLAND ISRA

#### South American Atlantic Region

#### SUMMARY

Montão de Trigo Island is located in São Paulo state, Brazil. It is situated ~13 km off the coast. The area is characterised by a rocky reef and coarse silty substrate. The area is influenced by offshore displacement of coastal and tropical water currents at the surface in austral summer months. Within this area there are: **threatened species** (e.g., Groovebelly Stingray *Dasyatis hypostigma*); **reproductive areas** (Spiny Butterfly Ray *Gymnura altavela*); and **undefined aggregations** (e.g., Longnose Stingray *Hypanus guttatus*).

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BRAZIL	
-	-
0-25 metre	es
-	-
<b>3.16 km</b> <sup>2</sup>	
-	-

### CRITERIA

Criterion A – Vulnerability; Sub-criterion C1 – Reproductive Areas; Sub-criterion C5 – Undefined Aggregations

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# DESCRIPTION OF HABITAT

Montão de Trigo Island is located in São Paulo state, Brazil. It is situated ~13 km off the coast. The area is characterised by a rocky reef and coarse silty substrate (Neto & Alcántara-Carrió 2024). The wind regime along the São Paulo coast varies seasonally: during austral spring and summer, winds primarily come from the east and north, whereas in autumn and winter, they shift to the southwest and west-southwest. This seasonality induces a bidirectional coastal current, flowing northeast in winter and southwest in summer, shaping the local distribution of water masses (Cerda & Castro 2014). In summer, offshore displacement of coastal and tropical water currents occurs at the surface, while South Atlantic Central Water moves onshore at deeper layers (De Castro Filho et al. 1987).

This Important Shark and Ray Area is benthic and pelagic and is delineated from surface waters (O m) to a depth of 25 m based on the depth range of the habitat in the area.

### **ISRA CRITERIA**

#### **CRITERION A - VULNERABILITY**

Two Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. These are the Endangered Groovebelly Stingray (Pollom et al. 2020) and Spiny Butterfly Ray (Dulvy et al. 2021).

### SUB-CRITERION C1 - REPRODUCTIVE AREAS

Montão de Trigo Island is an important reproductive area for one ray species.

Based on weekly recreational dives conducted year-round between 2022-2025 in the area, pregnant Spiny Butterfly Rays, sometimes occurring as assemblages with Groovebelly Stingrays and Longnose Stingrays, regularly occur within this area (RM Ferreira pers. obs. 2022-2025).

Aggregations of 5-100 Spiny Butterfly Rays were recorded during ~80% of weekly dives (RM Ferreira pers. obs. 2022-2025). Between March-August, aggregations were more frequent (100%) and larger (ranging 20-100 individuals, usually ~50). No neonates/YOY were recorded, but females with mating scars and males with swollen claspers were observed mostly during these months. Pregnant females (assumed from visual observation of extended abdomens) were also recorded predominantly between November-April and represented ~30% of aggregation size (RM Ferreira pers. obs. 2022-2025).

## SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

Montão de Trigo Island is an important area for undefined aggregations of two ray species.

Based on weekly recreational dives conducted year-round between 2022-2025 in the area, assemblages of Groovebelly Stingrays, Spiny Butterfly Rays, and Longnose Stingrays regularly occur within this area (RM Ferreira pers. obs. 2022-2025).

Aggregations of 10-200 Groovebelly Stingrays were recorded in ~70% of weekly dives (RM Ferreira pers. obs. 2022-2025). Between March-August, aggregations were more frequent (100% of dives) and larger (range of 100-200 individuals, usually ~100). No neonates/YOY were recorded, but pregnant females (assumed from visual observation of extended abdomens) were recorded

predominantly between November-April. Pregnant females represented ~20% of the aggregation size suggesting a reproductive purpose for their aggregation within this area (RM Ferreira pers. obs. 2022-2025). However, further information is needed to understand the nature and function of these aggregations.

Aggregations of 5-30 Longnose Stingrays were recorded in half of the weekly dives conducted yearround between 2022-2025 (RM Ferreira pers. obs. 2022-2025). Between March-August, aggregations were more frequent (reported from 80% of dives) and larger (ranging 20-30 individuals, usually ~20) (RM Ferreira pers. obs. 2022-2025). Further information is needed to understand the nature and function of these aggregations.

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# 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												
Dasyatis hypostigma	Groovebelly Stingray	EN	5-80	Х						Х		
Gymnura altavela	Spiny Butterfly Ray	EN	0-150	Х		Х						
Hypanus guttatus	Longnose Stingray	NT	0-70							Х		

# SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category				
RAYS						
Aetobatus narinari	Whitespotted Eagle Ray	EN				
Hypanus berthalutzae	Lutz's Stingray	VU				
Mobula birostris	Oceanic Manta Ray	EN				
Mobula hypostoma	Atlantic Pygmy Devil Ray	EN				
Mobula mobular	Spinetail Devil Ray	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



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