

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

NATADOLA BAY ISRA

New Zealand & Pacific Islands Region

SUMMARY

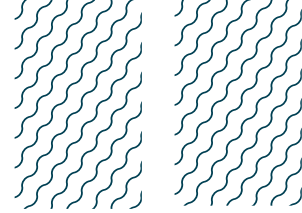
Natadola Bay is located on the southwest coast of Viti Levu Island in Fiji. The area includes a large gap in the coastal fringing reef, creating an environment sheltered from large waves. It is characterised by sandy substrates, coral reefs, seagrass beds, coastal beaches, and mangroves. Within this area there are: **threatened species** (Pink Whipray *Pateobatis fai*); **range-restricted species** (Oceania Fantail Ray *Taeniura lessoni*); and **undefined aggregations** (Pink Whipray).

CRITERIA

Criterion A - Vulnerability; Criterion B - Range Restricted; Sub-criterion C5 - Undefined Aggregations

—	—
FIJI	—
—	—
0-25 metres	—
—	—
2.71 km²	—
—	—





DESCRIPTION OF HABITAT

Natadola Bay is located on the southwestern coast of Viti Levu Island in Fiji. It is a large bay that creates a deep gap in the coastal fringing reef. Winds in Fiji are seasonally stronger during April–October and blow from the east and southeast (Kumar & Prasad 2010). The opening to the bay is ~1.2 km wide and faces southwest, meaning that the waters in the area are calm and not wavy. Water temperature fluctuates little, ranging between 25–28°C (R Macfarlane pers. obs. 2024). The habitat is characterised by sandy substrates, coral reefs, beds of Needle Seagrass *Halodule uninervis*, coastal beaches, and mangroves (McKenzie & Yoshida 2020).

This Important Shark and Ray Area is benthic and pelagic and is delineated from surface waters (0 m) to 25 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 Pink Whipray (Sherman et al. 2024).

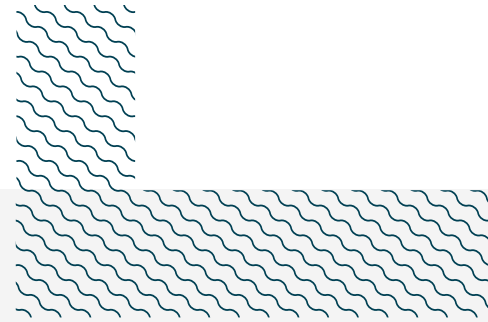
CRITERION B – RANGE RESTRICTED

This area holds the regular presence of the Oceania Fantail Ray as a resident range-restricted species. This species occurs year-round within Natadola Bay and has been regularly observed by divers since 2019 (I Ninio & A Cerrini pers. obs. 2024). Oceania Fantail Rays are seen in 10 out of 14 (71%) dive/snorkel trips undertaken in this area per week (R Macfarlane pers. obs. 2024). The species is not seen at dive sites immediately outside the area (R Macfarlane pers. obs. 2024), highlighting the importance of Natadola Bay for the species. The range of the Oceania Fantail Ray lies outside of Large Marine Ecosystems, but is small, including Fiji, the Solomon Islands, and Vanuatu (Last et al. 2016).

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

Natadola Bay is an important area for undefined aggregations of one ray species.

Local dive centre operators regularly see aggregations of 5–10 Pink Whiprays in the area (R Macfarlane pers. obs. 2024). Between 2019–2024, approximately 14 dives per week were conducted year-round in this area. Aggregations of Pink Whiprays were observed on an estimated ~15% of dives (R Macfarlane pers. obs. 2024). Additional information is required to determine 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									
				A	B	C1	C2	C3	C4	C5	D1	D2	
RAYS													
<i>Pateobatis fai</i>	Pink Whipray	VU	0-200	X							X		
<i>Taeniura lessoni</i>	Oceania Fantail Ray	DD	0-18		X								

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Stegostoma tigrinum</i>	Indo-Pacific Leopard Shark	EN
RAYS		
<i>Aetobatus ocellatus</i>	Spotted Eagle Ray	EN
<i>Rhynchobatus australiae</i>	Bottlenose Wedgefish	CR

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 Natadola Bay is important for undefined aggregations of Bottlenose Wedgefishes and distinctive behaviour of Spotted Eagle Rays.

Between 2019–2024, Bottlenose Wedgefish have been regularly observed during dives (R Macfarlane pers. obs. 2024). Bottlenose Wedgefish are sighted on an estimated ~30% of dives (R Macfarlane pers. obs. 2024). Aggregations of 2–3 Bottlenose Wedgefish (likely juveniles based on size estimates of <1.5 m total length [TL]) are observed approximately once per month (I Ninio pers. obs. 2024). The size-at-maturity for the species is 110–155 cm TL (Kyne et al. 2019). Additionally, local fishers from nearby villages sometimes capture wedgefishes in this area (R Macfarlane pers. obs. 2024). Further information is required to determine the regularity and predictability of the aggregations in the area.

Spotted Eagle Rays have been observed to visit a cleaning station in this area (R Macfarlane pers. obs. 2024). Single individuals cleaning at a particular site are reported once per week on average. The cleaning station is a large bommie at 25 m depth and the main cleaner fish species is the Bicolor Cleaner Wrasse *Labroides bicolor* (R Macfarlane pers. obs. 2024). This is the only known potential cleaning station for Spotted Eagle Rays in Fiji. More broadly, the species is not known for visiting cleaning stations (Berthe et al. 2016), highlighting the distinctive nature of this potential behaviour in this area. Further evidence is required to examine the regularity of this behaviour.



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