

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

NOUMÉA-ABORÉ ISRA

New Zealand & Pacific Islands Region

SUMMARY

Nouméa-Aboré is located on the southeastern side of the Grande Terre Island in New Caledonia. The area consists of a barrier reef with reef flats, forereefs, and a reef crest, and includes two passes, Dumbea Pass in the north and Boulari Pass in the south. It is characterised by live and dead coral substrates with sandy, rocky, and rubble patches. The area overlaps with the Grand Lagon Sud Marin Key Biodiversity Area and with the Grand récif Aboré et de la passe de Boulari Nature Reserve. Within this area there are: **threatened species** (e.g., Grey Reef Shark Carcharhinus amblyrhynchos); **reproductive areas** (Indo-Pacific Leopard Shark Stegostoma tigrinum); and **undefined aggregations** (e.g., Reef Manta Ray Mobula alfredi).

CRITERIA

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

- – NEW CALEDONIA – – 0-50 metres – –

54.05 km²



DESCRIPTION OF HABITAT

Nouméa-Aboré is located in the southeastern side of Grande Terre Island in New Caledonia. The area is ~20 km from the coast and ~3 km west of Amédée Island. The area consists of a barrier reef with reef flats, forereefs, and a reef crest that is occasionally exposed at low tides (Scopélites et al. 2007). The area includes two passes with strong currents that are found 24 km apart, Dumbea Pass in the north and Boulari Pass in the south. It is characterised by live and dead coral substrates with sandy, rocky, and rubble patches (Andréfouët & Torres-Pulliza 2004; Pelletier et al. 2020).

The area overlaps with the Grand Lagon Sud Marin Key Biodiversity Area (KBA 2024) and the Grand récif Aboré et de la passe de Boulari Nature Reserve (UNEP-WCMC & IUCN 2024).

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (O m) to 50 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A - VULNERABILITY

Three Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. These are the Endangered Grey Reef Shark (Simpfendorfer et al. 2020) and Indo-Pacific Leopard Shark (Rigby et al. 2024); and the Vulnerable Reef Manta Ray (Marshall et al. 2022).

SUB-CRITERION C1 - REPRODUCTIVE AREAS

Nouméa-Aboré is an important reproductive area for one shark species.

Visual surveys and citizen science have found courtship and mating behaviour for Indo-Pacific Leopard Shark (H Lassauce unpubl. data 2024). Between 2021- 2024, 88 days were surveyed in the area with a higher effort since 2023 when there were surveys year-round. Form these surveys, 37 individuals were photo identified of which 28 were resighted multiple times, including some resighted in multiple years. Indo-Pacific Leopard Sharks aggregate in the area from May-August (H Lassauce unpubl. data 2024). Few (<1 in average) or zero individuals were observed from September-April and an average of three individuals (maximum nine individuals) were recorded from May-August. Pictures and videos of snorkelers confirm this seasonality and this fidelity trend. During surveys, courtship and pre-mating behaviour (males trying to bite female's pectoral or caudal fin) are commonly observed and once mating was recorded. Courtship behaviour was observed six times in 2023 and four times in 2024. This is the only location in New Caledonia where this behaviour has been recorded and the area is close (~25 km) to a known egg-laying area for the species (Lemon Bay; H Lassauce unpubl. data 2024).

SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

Nouméa-Aboré is an important area for undefined aggregations of one shark and one ray species.

Aggregations of Grey Reef Sharks have been determined through baited remote underwater video system (BRUVS) surveys, visual censuses, and citizen science reports. BRUVS surveys conducted between 2012–2014 and distance-sampling visual censuses (50 m long by 10 m wide at ~15 m depth) conducted between 1986–2014 at 15 sites along New Caledonia's reefs revealed the regular presence

of Grey Reef Shark aggregations in this area (Juhel et al. 2017). Average abundances for Grey Reef Sharks in visual censuses and BRUVS were among the third largest in New Caledonia (3-4 individuals; Juhel et al. 2017). Additionally, aggregations of 20-30 Grey Reef Sharks have been regularly recorded by divers and published on social media since 2014. More information is needed to confirm the nature and function of these aggregations.

Between 2017-2020, photographs of Reef Manta Rays were collected from recreational divers, snorkellers, and during diving surveys across 11 sites in New Caledonia (Lassauce et al. 2024). Reef Manta Rays were photographed in Nouméa-Aboré on 370 days of sampling between 1993-2020, with most of the sightings (55.7%) concentrated between 2017-2020 (Lassauce et al. 2024). In Nouméa-Aboré, 851 sightings (average = 2.3 individuals sighted per day) were recorded at two aggregation sites that serve mainly as cleaning stations and occasionally for feeding, in the Boulari Pass and Dumbea Pass. Nouméa-Aboré held the largest number of sightings, 153 individuals were photo-identified with the majority (82.3%) found in Boulari Pass and with 14.4% of the individuals observed at both sites (Lassauce et al. 2024). In these sites, aggregations of 5-10 Reef Manta Rays have been regularly observed in Arboré Reef, with courtship behaviour reported (H Lassauce unpubl. data 2024), but more information is needed to confirm the reproductive importance of the area.

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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
SHARKS												
Carcharhinus amblyrhynchos	Grey Reef Shark	EN	0-280	Х						Х		
Stegostoma tigrinum	Indo-Pacific Leopard Shark	EN	0-90	Х		Х						
RAYS												
Mobula alfredi	Reef Manta Ray	VU	0-711	Х						Х		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category						
SHARKS								
Carcharhinus albimarginatus	Silvertip Shark	VU						
Carcharhinus melanopterus	Blacktip Reef Shark	VU						
Nebrius ferrugineus	Tawny Nurse Shark	VU						
Triaenodon obesus	Whitetip Reef Shark	VU						
RAYS								
Aetobatus ocellatus	Spotted Eagle Ray	EN						
Pateobatis fai	Pink Whipray	VÜ						

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.





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