

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

BLUE LAGOON-RANGIROA ISRA
New Zealand & Pacific Islands Region

SUMMARY

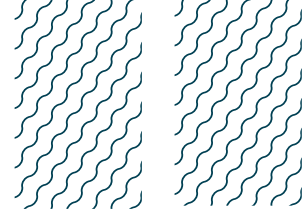
Blue Lagoon-Rangiroa is located on the western side of Rangiroa Atoll in the Tuamotu Archipelago of French Polynesia. The area encompasses an inner lagoon, within the larger Rangiroa Atoll lagoon, and its encircling ring of coral reefs and small islets. Blue Lagoon-Rangiroa is characterised by sandy substrates with patches of coral reefs, seagrass beds, and shallow sandbars. Within this area there are: **threatened species** and **reproductive areas** (Blacktip Reef Shark *Carcharhinus melanopterus*).

CRITERIA

Criterion A - Vulnerability; Sub-criterion C1 - Reproductive Areas

— —
FRENCH POLYNESIA
 — —
0-3 metres
 — —
3.1 km²
 — —





DESCRIPTION OF HABITAT

Blue Lagoon-Rangiroa is situated on the western side of Rangiroa Atoll in the Tuamotu Archipelago of French Polynesia. The area encompasses an inner lagoon with crystal clear waters ranging between 0–3 meters, within the larger Rangiroa Atoll lagoon, and its encircling ring of coral reefs and small islets. Blue Lagoon-Rangiroa is characterised by sandy substrates with patches of coral reefs, seagrass beds, and shallow sandbars. The islets surrounding the lagoon are covered in coconut palms and coastal shrubs. The tides in the area are semi-diurnal, with two tidal cycles per day of unequal range (mean tidal range = 0.52 m) (Kumar et al. 2019). The region is influenced by the Island Mass Effect and the easterly trade winds, experiencing two relatively distinct seasons, a wet season from December–March and a dry season from July–October (Kumar et al. 2019; Vollbrecht et al. 2021).

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 3 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A – VULNERABILITY

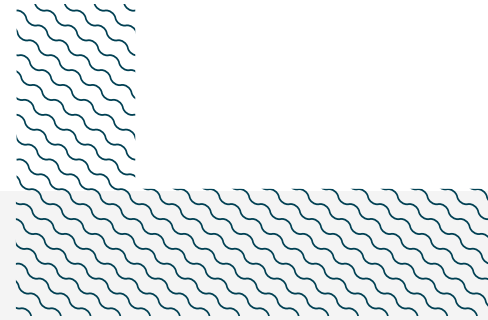
One Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occurs in the area. This is the Vulnerable Blacktip Reef Shark (Simpfendorfer et al. 2020).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Blue Lagoon-Rangiroa is an important reproductive area for one shark species.

Blacktip Reef Sharks neonates are regularly seen in this area (K Burkhardt pers. obs. 2024). Between 2011–2024, photograph and video records from tourists have documented the area as an important aggregation site for neonate and young-of-the-year (YOY) Blacktip Reef Sharks. Small Blacktip Reef Sharks are seen year-round in the shallow lagoon swimming and resting with their dorsal fins out of the water (K Burkhardt pers. obs. 2024). Aggregations of an average of ~20–40 neonates and YOY are regularly observed in this area, with visual size estimates indicating individuals as small as 35 cm in total length (TL) (K Burkhardt pers. obs. 2024). The size at birth for this species is 30–52 cm TL (Ebert et al. 2021).

Blue Lagoon-Rangiroa has been used by locals as a tourism spot for >50 years, offering daily, year-round excursions to observe neonates and YOY Blacktip Reef Sharks from the beach (K Burkhardt pers. obs. 2024), confirming the importance of the area across multiple decades. Due to the shallow and sheltered characteristics of the area, Blue Lagoon-Rangiroa provides a protected environment against predators for the early life stages of Blacktip Reef Sharks.



Acknowledgments

Kori Burkhardt (Ma'o Mana Foundation with Direction de l'Environnement Polynésie Française) and Marta D Palacios (IUCN SSC Shark Specialist Group - ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2024 ISRA Region 10 - New Zealand and Pacific Islands workshop for their contributions to this process.

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Suggested citation

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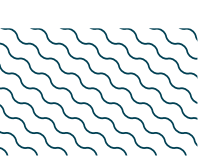
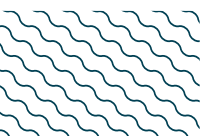
QUALIFYING SPECIES

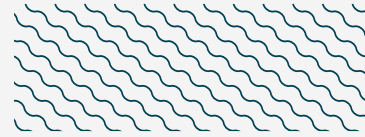
Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met									
				A	B	C1	C2	C3	C4	C5	D1	D2	
SHARKS													
<i>Carcharhinus melanopterus</i>	Blacktip Reef Shark	VU	0-100	X		X							

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Negaprion acutidens</i>	Sharptooth Lemon Shark	EN
RAYS		
<i>Pateobatus fai</i>	Pink Whipray	VU

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

Ebert DA, Dando M, Fowler S. 2021. *Sharks of the world: A complete guide*. Princeton: Princeton University Press.

Kumar S, Kruger J, Begg Z, Handerson E, Alvis M. 2013. Multibeam bathymetry survey Rangiroa, French Polynesia. Suva: SPC Applied Geoscience and Technology Division (SOPAC).

Simpfendorfer C, Yuneni RR, Tanay D, Seyha L, Haque AB, Fahmi, Bin Ali A, Dharmadi, Bineesh KK, Gautama DA, et al. 2020. *Carcharhinus melanopterus*. *The IUCN Red List of Threatened Species 2020*: e.T39375A58303674. <https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T39375A58303674.en>

Vollbrecht C, Moehlenkamp P, Gove JM, Neuheimer AB, McManus MA. 2021. Long-Term Presence of the Island Mass Effect at Rangiroa Atoll, French Polynesia. *Frontiers in Marine Science* 7: 595294. <https://doi.org/10.3389/fmars.2020.595294>