

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

MAUPITI ISRA

New Zealand & Pacific Islands Region

SUMMARY

Maupiti is located in the Society Islands of French Polynesia. The area encompasses shallow parts of the lagoon around Maupiti Island and the main channel connecting the lagoon with the open ocean. The area is characterised by coral reefs and seagrass beds, and influenced by nutrient-rich fronts, and occasional upwellings. Within the area there are: **threatened species** and **undefined aggregations** (Reef Manta Ray *Mobula alfredi*).

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

FRENCH POLYNESIA

0-250 metres

2.29 km²

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sharkrayareas.org

DESCRIPTION OF HABITAT

Maupiti is located in the western part of the Society Islands in French Polynesia. It is part of a volcanic island chain, characterised by a central island surrounded by a shallow lagoon enclosed by a barrier reef. Maupiti Island is the oldest of the volcanic islands created by the Society hot spot, dated at 4.21 \pm 0.04 Ma (Blais et al. 2002). The area has a unique combination of both static and dynamic habitat features, including coral reefs, seagrass beds, nutrient-rich fronts, and occasional upwellings (A Carpentier & V Poly pers. obs. 2024). The lagoon is relatively shallow, with depths ranging from a few meters at the edges to around 20–30 m in deeper sections. The area encompasses shallow parts of the lagoon and the only main channel, Onoiay Pass, and its entrance, connecting the lagoon with the open ocean.

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 250 m based on the bathymetry of the area.

ISRA CRITERIA

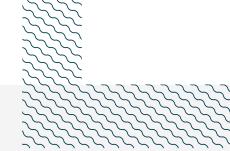
CRITERION A - VULNERABILITY

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 Reef Manta Ray (Marshall et al. 2022).

SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

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

This area is a cleaning station for Reef Manta Rays. Between 2014–2024, photo-identification surveys on snorkel and scuba were conducted in the area and recorded 1,246 sightings of 84 individuals (Carpentier et al. 2019; Carpentier 2023; French Polynesia Manta Project unpubl. data 2024). Cleaning behaviour was noted in 96.6% (n = 1,204) of the observations at two main cleaning station sites within the area. Aggregations of up to 11 individuals have been observed using cleaning stations in the area (T Gabrielsky & E Ah-Yun pers. comm. 2024). Aggregations of 4–5 individuals from July to November are commonly observed (T Gabrielsky & E Ah-Yun pers. comm. 2024). Of the 84 Reef Manta Rays identified, 98% (n = 82) have been re-sighted in the area between 2014–2024 at least once indicating high site fidelity. Furthermore, 63% (n = 53) of the identified individuals were observed exclusively in Maupiti (French Polynesia Manta Project unpubl. data 2024), highlighting the importance of the area to this species.



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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	C1	C2	C ₃	C ₄	C5	Dı	D2
RAYS									•	•		
Mobula alfredi	Reef Manta Ray	VU	O-771	Χ						Х		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category			
SHARKS					
Carcharhinus melanopterus	Blacktip Reef Shark	VU			
Galeocerdo cuvier	Tiger Shark	NT			
RAYS					
Aetobatus ocellatus	Spotted Eagle Ray	EN			
Pateobatis fai	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.





There are additional indications that this area is part of a movement corridor for Reef Manta Rays between Bora Bora and Maupiti.

Movements between Maupiti and Bora Bora (minimum linear distance of 50 km) have been recorded regularly and predictably between 2014–2024, with 31 distinct individuals identified through photo-identification observed travelling between these islands. This accounts for 36% (n = 84) of the identified individuals from Maupiti and 35% (n = 87) of those from Bora Bora, indicating the presence of a movement corridor between these locations and regular travel between the islands (French Polynesia Manta Project unpubl. data 2024). The reasons for these inter-island movements are not clearly identified; however, 45% (n = 14) of these individuals were female and 55% (n = 17) were male. The number of recorded movements between the islands varied among individuals, with a minimum of one way and a maximum of three roundtrips. Additional information is required to understand the migratory pathway that animals are using to connect Maupiti and Bora Bora.



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Carpentier A, Berthe C, Ender I, Jaine F, Mourier J, Stevens G, De Rosemont M, Clua E. 2019. Preliminary insights into the population characteristics and distribution of reef (*Mobula alfredi*) and oceanic (*M. birostris*) manta rays in French Polynesia. Coral Reefs 38(6): 1197–1210. https://doi.org/10.1007/s00338-019-01854-0

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Marshall A, Barreto R, Carlson J, Fernando D, Fordham S, Francis MP, Herman K, Jabado RW, Liu KM, Pacoureau N, et al. 2022. *Mobula alfredi* (amended version of 2019 assessment). *The IUCN Red List of Threatened Species* 2022: e.T195459A214395983. https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T195459A214395983.en