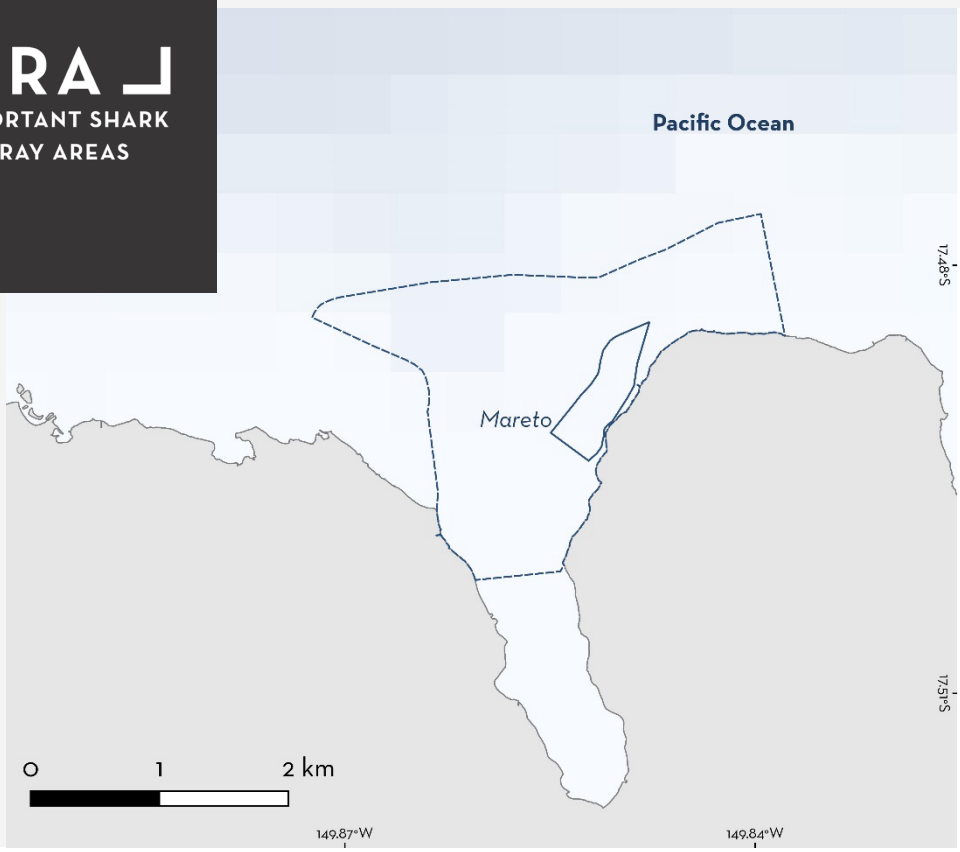
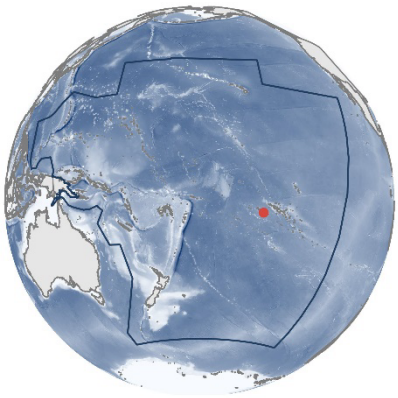
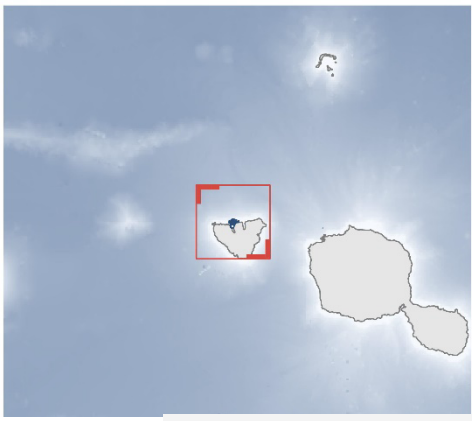
ISRA
IMPORTANT SHARK AND RAY AREAS







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

MARETO ISRA

New Zealand & Pacific Islands Region

FRENCH POLYNESIA

0–15 metres

0.31 km²

SUMMARY

Mareto is located on the east side of Opunohu Bay of Moorea Island in the Society Archipelago of French Polynesia. The area is located within the shallow inner waters of the lagoon and is characterised by sandflat areas adjacent to a channel and a fringing reef. The area is influenced by low tidal variation, and currents generally oriented from the crest towards the channel, largely induced by waves. This area overlaps with the Lagon de Moorea Wetland of International Importance and Tetiaroa, Moorea et Tahiti Marine Key Biodiversity Area. Within this area there are: **threatened species** and **feeding areas** (Spotted Eagle Ray *Aetobatus ocellatus*).

CRITERIA

Criterion A – Vulnerability; Sub-criterion C2 – Feeding Areas

DESCRIPTION OF HABITAT

Mareto is located on the east side of Opunohu Bay of Moorea Island in the Society Archipelago of French Polynesia. Opunohu Bay is 350 m long and 180 m wide, with depths ranging from 2–15 m and is located within the shallow inner waters of the lagoon. Mareto is characterised by sandflat areas adjacent to a channel and a fringing reef. The area is influenced by low tidal variation, with a tidal range of 0.4 m (Rieucau et al. 2018), and currents generally oriented from the crest towards the channel, largely induced by waves (Ramsar Convention 2008; Berthe et al. 2018).

This area overlaps with the Lagon de Moorea Wetland of International Importance (Ramsar Convention 2008) and the Key Biodiversity Area (KBA) Tetiaroa, Moorea et Tahiti Marine (KBA 2024).

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 15 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 Endangered Spotted Eagle Ray (Finucci et al. 2024).

SUB-CRITERION C2 – FEEDING AREAS

Mareto is an important feeding area for one ray species.

Juvenile Spotted Eagle Rays visit this area regularly and predictably to feed. Between 2012–2015, two studies were conducted in the area, recording a total of 162 sightings of Spotted Eagle Rays foraging (Berthe & Lecchini 2016; Berthe et al. 2018). From October 2012 to November 2013, 59 rays were observed foraging on the substrate during in water surveys using snorkel (Berthe & Lecchini 2016). Additionally, between September 2014 and October 2015, visual surveys in the area (n = 84) using photo-identification recorded 131 sightings of at least 47 identified Spotted Eagle Ray individuals (Berthe et al. 2018). Foraging behaviour, where the rays were observed searching the substrate for food, occurred in 79% (n = 103) of observations. Spotted Eagle Rays were predominantly juveniles (n = 107, 64% of individuals observed) with a disc width of less than 70 cm and without apparent claspers (Berthe & Lecchini 2016).

Compared to other areas on the north coast of Moorea Island where surveys were also conducted (but foraging behaviour was not observed), Mareto had a higher abundance of small benthic macroinvertebrates (density of 170 individuals/m^2) representing a group prey to juvenile rays (Berthe et al. 2018). Further analysis showed that juveniles were more abundant when there was no current and/or an east or west wind in the area. Results indicated no apparent seasonality in the abundance of rays between the dry (June–September) and wet (October–May) seasons, but higher abundances were reported during the afternoons (Berthe et al. 2018).

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Cécile Berthe (CRIOBE) 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
RAYS												
Aetobatus ocellatus	Spotted Eagle Ray	EN	0–40	X			X					

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Carcharhinus melanopterus	Blacktip Reef Shark	VU
RAYS		
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.

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