

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

SALOMON ATOLL ISRA

Western Indian Ocean Region

SUMMARY

Salomon Atoll is located in the Chagos Archipelago. This area has 11 islands distributed around its rim, an enclosed lagoon, and a single shallow channel on its northern side. Habitats include fringing and patch reefs, and seagrass beds. This area is under the influence of the Indian Ocean monsoon seasons. Salomon Atoll sits within the British Indian Ocean Territory Marine Protected Area. Within this area there are: **threatened species** and **feeding areas** (Reef Manta Ray *Mobula alfredi*).

CRITERIA

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

CHAGOS
 ARCHIPELAGO

0-250 metres

132.24 km²





DESCRIPTION OF HABITAT

Salomon Atoll is located in the Chagos Archipelago. It lies ~35 km north from the Great Chagos Bank. The Chagos Archipelago is one of the most remote coral reef ecosystems on the planet. Its climate is tropical and moderated by trade winds (Eisenhauer et al. 1999). This area is exposed to strong persistent distant-source swells during the southeast monsoon (April to November). The northwest monsoon (December to March) is dominated by light north-westerly winds, higher rainfall, and warmer temperatures. The islands of the Chagos Archipelago are low lying (only 2-5 m above sea level) and are typically coral cays constructed of limestone with underlying freshwater lenses sustained by rainfall (Sheppard 2007; Graham et al. 2009; Purkis et al. 2016). Salomon Atoll is located east of Peros Banhos Atoll and has 11 islands distributed around its rim. Habitat across the atoll consists of fringing reef, lagoon, patch reef, and seagrass habitats. The Salomon lagoon is largely enclosed and has a single, ~1.2 km long, shallow channel on its northern side (Rayner & Drew 1984).

The area sits within the British Indian Ocean Territory Marine Protected Area.

This Important Shark and Ray Area is pelagic and is delineated from surface waters to a depth of 250 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A - VULNERABILITY

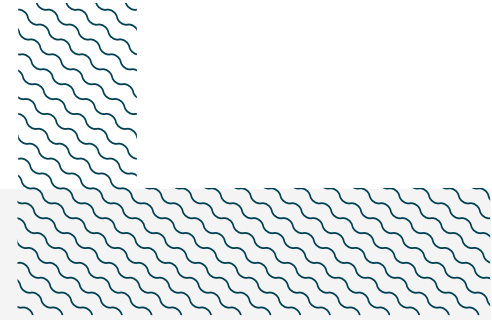
The one Qualifying Species within the area is considered threatened with extinction according to the IUCN Red List of Threatened Species™. The Reef Manta Ray is assessed as Vulnerable (Marshall et al. 2020).

SUB-CRITERION C2 - FEEDING AREAS

Salomon Atoll is an important feeding area for one ray species.

From February 2013 to April 2016, Reef Manta Rays were tagged in Egmont Atoll (n = 18) and Salomon Atoll (n = 8) by free-divers with acoustic tags (n = 21; Andrzejaczek et al. 2020). An array of 52 acoustic receivers were deployed between 2014 and 2016 at nine sites and were typically placed on the fore reefs of atolls at depths of 15-20 m. Of these, 13 were deployed among the southern atolls and banks of the archipelago (Egmont Atoll, South Great Chagos Bank, Schwartz seamount) and 39 were deployed among the northern atolls (Peros Banhos and Salomon Atolls, Speakers, North Great Chagos, Victory Bank, and Colvocoresses Reef).

Based on frequency of detections of tagged Reef Manta Rays downloaded from the receiver array in July 2019, the area of highest activity was Salomon Atoll (Andrzejaczek et al. 2020). Given that the receiver within the lagoon at Salomon Atoll is located next to the channel that feeds a strong current from outside at high tide, and that several Reef Manta Rays have been observed feeding at the channel mouth (R Schallert pers. comm. 2023), this site represents an important foraging ground for Reef Manta Rays in the Chagos Archipelago, attracting aggregations of individuals when conditions are suitable.



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This factsheet has undergone review by the ISRA Independent Review Panel prior to its publication.

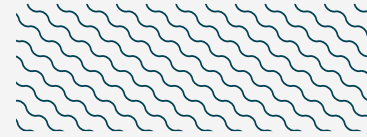
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QUALIFYING SPECIES

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>Mobula alfredi</i>	Reef Manta Ray	VU	0-711	X			X						



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