

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

#### **CHARAPOANA PASSAGE ISRA**

#### **New Zealand & Pacific Islands Region**

#### SUMMARY

Charapoana Passage is located in the New Georgia Islands of the Western Province of the Solomon Islands. The area is a channel, situated between the barrier reef islands of Uepi and Charapoana, that connects the Marovo Lagoon with the Solomon Sea. Marovo Lagoon is the largest double-barrier enclosed lagoon in the world. This area is primarily influenced by tidal currents due to the narrowness of the channel and its connection to the surrounding lagoon and open sea. Within this area there are: **threatened species** (e.g., Blacktip Reef Shark Carcharhinus melanopterus) and **undefined aggregations** (e.g., Reef Manta Ray Mobula alfredi).

#### **CRITERIA**

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

# SOLOMON ISLANDS

#### 0-50 metres

2.04 km<sup>2</sup>

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sharkrayareas.org

#### **DESCRIPTION OF HABITAT**

Charapoana Passage is located in the New Georgia Islands of the Western Province of the Solomon Islands. This area is a channel, between Uepi Island and Charapoana Island, that connects the Marovo Lagoon with the Solomon Sea. This area plays a crucial role in the marine environment around Uepi Island and Charapoana Island, allowing ocean water to flow into the lagoon (Diveplanit Travel 2024). Marovo Lagoon is the largest (700 km²) double-barrier enclosed lagoon in the world (UNESCO 2024). Inside the lagoon there are pinnacle reefs dominated by branching corals (Carlton et al. 2020). Uepi and Charapoana are barrier reef islands located between the Marovo Lagoon and the New Georgia Sound, also known as 'The Slot', a deep marine abyss that reaches depths of 1,800 m. The islands are outlined by fringing reefs, sheltered coral gardens, ledges, sandy beaches, and steep walls that drop into The Slot (Diveplanit Travel 2024). This area is primarily influenced by tidal currents, which can be strong and variable due to the narrowness of the channel and its connection to the surrounding lagoon and open sea. Tidal movements between these two water bodies can create strong currents that can flow in either direction, depending on the tidal phase.

Most of Solomon Islands is located within the West Pacific Warm Pool and is influenced by the South Pacific Convergence Zone, Intertropical Convergence Zone, and the West Pacific Monsoon (Jupiter et al. 2019). Its oceanographic setting is dominated during austral winter months (June-August) by prevailing southeasterly trade winds that drive major ocean currents to northwest along the southern part of the chain and to the west in the northern part of the archipelago (Salinger et al. 1995). During summer months (December-March), the directionality of ocean currents is more variable (Jupiter et al. 2019).

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 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. 2020a); and the Vulnerable Blacktip Reef Shark (Simpfendorfer et al. 2020b) and Reef Manta Ray (Marshall et al. 2022).

#### SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

Charapoana Passage is an important area for undefined aggregations of two shark and one ray species.

Photos and videos from divers or snorkellers on social media channels in 2015, 2017, and 2018 (n = 5) demonstrate aggregations of Grey Reef Sharks within this area. Generally, 2-6 individuals (average = 4.4) are reported regularly swimming (in slow and fast speed) in the area. Grey Reef Sharks with mating scars have also been reported by divers. However, further information is needed to understand the nature and function of these aggregations.

Photos and videos from divers or snorkellers on social media channels in 2012, 2015, and 2024 (n = 5) demonstrate aggregations of Blacktip Reef Sharks within the area. Between 3–10 individuals (average = 5.6) in the area. Small Blacktip Reef Sharks, likely neonates and young-of-the-year, have been reported from the shallow sandy waters. These life-stages are suggested due to visual estimation of two individuals (50–70 cm total length [TL]), and the size-at-birth of this species is 30–52 cm TL (Ebert et al. 2021). However, further information is needed to understand the nature and function of these aggregations.

Photos and videos from divers or snorkellers on social media channels in 2017, 2018, 2023 and 2024 (n = 6) demonstrate aggregations of Reef Manta Rays within the area. Between 3-5 individuals (average = 4) are regularly seen cruising or feeding in the area. Reef Manta Rays are predictably observed attending a cleaning station in this area, with these sightings forming a tourist attraction to local divers (Reef Builders 2019).

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## QUALIFYING SPECIES

Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met								
		,		A	В	Cı	C2	C3	C4	C <sub>5</sub>	Dı	D2
SHARKS												
Carcharhinus amblyrhynchos	Grey Reef Shark	EN	0-280	Х						Χ		
Carcharhinus melanopterus	Blacktip Reef Shark	VU	0-100	Х						Х		
RAYS												
Mobula alfredi	Reef Manta Ray	VU	0-711	Х						Χ		

### SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		L
Sphyrna lewini	Scalloped Hammerhead	CR
Triaenodon obesus	Whitetip Reef Shark	VU
RAYS	1	
Aetobatus ocellatus	Spotted Eagle Ray	EN
Mobula kuhlii	Shorthorned Pygmy Devil Ray	EN
Taeniura lessoni	Oceania Fantail Ray	DD

IUCN Red List of Threatened Species Categories are available by searching species names at <a href="https://www.iucnredlist.org">www.iucnredlist.org</a> Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.





Carlton R, Dempsey A, Lubarsky K, Akao I, Faisal M, Purkis, S. 2020. Global reef expedition: Solomon Islands. Final Report. Annapolis: Khaled bin Sultan Living Oceans Foundation.

**Dive Adventures. 2024.** Marovo Lagoon. Available at: https://diveadventures.com.au/region/solomon-islands-uepi-island/ Accessed September 2024

**Diveplanit Travel. 2024.** Uepi. Available at: https://www.diveplanit.com/solomon-islands/uepi Accessed September 2024

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

Jupiter S, McCarter J, Albert S, Hughes A, Grinham A. 2019. Solomon Islands: Coastal and marine ecosystems. In: Sheppard C, ed. World seas: an environmental evaluation, Second Edition. Oxford: Academic Press, 855–874.

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

**Reef Builders. 2019.** Snorkeling with manta rays at Uepi Island Resort Solomon Islands. Available at: https://reefbuilders.com/2019/09/06/snorkeling-with-manta-rays-uepi-island-solomon-islands/Accessed September 2024.

Salinger MJ, Basher RE, Fitzharris BB, Hay JE, Jones PD, Macveigh JP, Schmidely-Leleu I. 1995. Climate trends in the South-west Pacific. *International Journal of Climatology* 15(3): 285–302. https://doi.org/10.1002/joc.3370150305

Simpfendorfer C, Fahmi, Bin Ali A, Dharmadi, Utzurrum JAT, Seyha L, Maung A, Bineesh KK, Yuneni RR, Sianipar A, et al. 2020a. Carcharhinus amblyrhynchos. The IUCN Red List of Threatened Species 2020: e.T39365A173433550. https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T39365A173433550.en

Simpfendorfer C, Yuneni RR, Tanay D, Seyha L, Haque AB, Fahmi, Bin Ali A, Dharmadi, Bineesh KK, Gautama DA, et al. 2020b. 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

United Nations Educational, Scientific and Cultural Organization (UNESCO). 2024. Marovo - Tetepare Complex. Available at: https://whc.unesco.org/en/tentativelists/5414/ Accessed September 2024.