

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

GIZO LAGOON ISRA

New Zealand & Pacific Islands Region

SUMMARY

Gizo Lagoon is located in the New Georgia Islands of the Western Province of the Solomon Islands. This area is situated on the eastern side of Mbambanga Island bordered by the reef and the islands of Tingetange, Olasana, Kerukeu, Kennedy, and Leorava. The habitat is characterised by shallow fringing reefs and pinnacle reefs. Within this area there are **threatened species** and **undefined aggregations** (Blacktip Reef Shark *Carcharhinus melanopterus*).

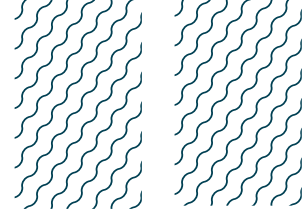
CRITERIA

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

SOLOMON ISLANDS

0-25 metres

15.47 km²



DESCRIPTION OF HABITAT

Gizo Lagoon is located in the New Georgia Islands of the Western Province of the Solomon Islands. This area is situated on the eastern side of Mbambanga Island bordered by the reef and the islands of Tingetange, Olasana, Kerukeu, Kennedy, and Leorava. The area borders the deepest and easternmost part of a semi-lagoon sheltered from large wave exposure. The habitat is characterised by shallow fringing reefs and pinnacle reefs. The reefs in this area host a high average coral cover of 30–45% (Kere 2009). However, after an earthquake and tsunami in 2007, these reefs were damaged. Currently, there is low live coral cover with the reefs being dominated by turf algae and crustose coralline algae (Carlton et al. 2020).

This Important Shark and Ray Area is delineated from surface waters (0 m) to 25 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 C5 – UNDEFINED AGGREGATIONS

Gizo Lagoon is an important area for undefined aggregations of one shark species.

Regular and predictable aggregations of Blacktip Reef Sharks in this area are supported by citizen science reports and surveys using Baited Remote Underwater Video Station (BRUVS) surveys.

Much of the area is uninhabited but Blacktip Reef Sharks are commonly recorded in shallow waters, close to the resorts scattered along the coastline. Aggregations of 3–7 Blacktip Reef Sharks visually estimated ranging in size from 30–150 cm total length (TL) are reported weekly throughout the year, especially through social media channels (Imagination Island Resort & Fatboys Resort pers. comm. 2024). Size-at-birth for this species is 30–50 cm TL (Mourier et al. 2013) and maturity is reached between 90–112 cm TL (Ebert et al. 2021), indicating that animals sighted are neonates, young-of-the-year (YOY), and juveniles. Provisioning of fish scraps sometimes occurs at the jetties of Imagination Island (northernmost of the area) and in the southwest of the area (during the night). During provisioning times, aggregations can increase to 15 individuals. However, small aggregations of 3–5 individuals are present every day even when there is no provisioning (Imagination Island Resort & Fatboys Resort pers. comm. 2024). Further, aggregations are observed along the whole island area and were recorded between 2020–2022 when no provisioning occurred in the area (Imagination Island Resort pers. comm. 2024). Blacktip Reef Sharks have also been recorded chasing bait balls at Imagination Island. In addition, there are records of mating behaviour northwest of the area, along with a record of a neonate visually estimated at 35 cm TL in the northeast. Neonates and YOY at Imagination Island visually estimated from 30–60 cm TL have been observed since 2010, but observations have become regular in aggregations of ~5 individuals since 2023 (Imagination Island Resort pers. comm. 2010–2024). Neonates and YOY are not recorded near the jetties where aggregations are formed mostly by juveniles (100–150 cm TL). This is the only area in the Solomon Islands where observations of Blacktip Reef Sharks 30–40 cm TL were found.

BRUVS surveys were conducted in October and November 2015 to quantify reef shark abundance in four regions across the Western Province of the Solomon Islands (Goetze et al. 2018). BRUVS were deployed at 160 sites across the Western Province, of which 23 were within this area (Goetze et al. 2018). Blacktip Reef Sharks ranging in size from 67–91 cm fork length were recorded on four of the nine deployments within Gizo Lagoon (Goetze et al. 2018) confirming the regular occurrence of juveniles in similar habitat types of non-inhabited islands within the area. Further information is required to determine the function and nature of these aggregations.

Acknowledgments

Emmanuel Kweku Twumasi (Imagination Island Coral Reef Resort) and Vanessa Bettcher Brito (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.

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

This project was funded by the Shark Conservation Fund, a philanthropic collaborative pooling expertise and resources to meet the threats facing the world’s sharks and rays. The Shark Conservation Fund is a project of Rockefeller Philanthropy Advisors.

Suggested citation

IUCN SSC Shark Specialist Group. 2024. Gizo Lagoon ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

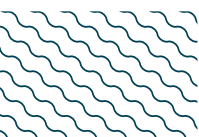
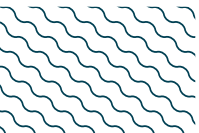
QUALIFYING SPECIES

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		

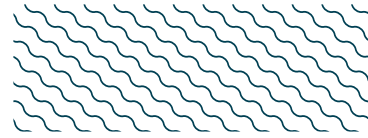
SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Carcharhinus amblyrhynchos</i>	Grey Reef Shark	EN
<i>Triaenodon obesus</i>	Whitetip Reef Shark	VU
RAYS		
<i>Aetobatus ocellatus</i>	Spotted Eagle Ray	EN
<i>Mobula kuhlii</i>	Shorthorned Pygmy Devil Ray	EN
<i>Neotrygon kuhlii</i>	Kuhl's Maskray	DD
<i>Taeniura lessoni</i>	Oceania Fantail Ray	DD

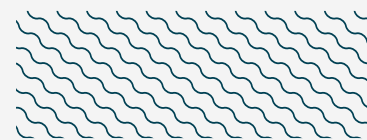
IUCN Red List of Threatened Species Categories are available by searching species names at www.iucnredlist.org. Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.



SUPPORTING INFORMATION



There are additional indications that Gizo Lagoon is an important area for undefined aggregations of one ray species. Aggregations of Spotted Eagle Rays are reported in the area (Always Dive 2024, Imagination Island 2024), and records are available on social media. Spotted Eagle Rays were only recorded by BRUVS at sites in the north of Western Province (Gizo, Parara, Kolombangara). Four of nine deployments that recorded Spotted Eagle Rays were within Gizo Lagoon. The two highest MaxN (maximum number of individuals of a species observed in a single frame) of Spotted Eagle Rays were also within Gizo Lagoon (MaxN = 3; MaxN = 2) while the MaxN for the seven remaining deployments was one (Goetze et al. 2018). Historical information suggests that the aggregation of Spotted Eagle Rays is related to reproduction (PCRF 2002). However, more information is needed to understand the function and regularity of these aggregations.



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