

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

GILMAN ISRA

New Zealand & Pacific Islands Region

SUMMARY

Gilman is located on the southern tip of the island of Yap in the Federated States of Micronesia. The area is characterised by large coral heads surrounded by sandy substrates, particularly in shallow areas. Gilman experiences currents that flow along both sides of the outer reefs, converging to form an eddy in the area off the tip of the island. Within this area there are: **threatened species** and **undefined aggregations** (Mangrove Whipray *Urogymnus granulatus*).

CRITERIA

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

FEDERATED
 STATES OF
 MICRONESIA

0-40 metres

7.83 km²





DESCRIPTION OF HABITAT

Gilman is located on the southern tip of the island of Yap in the Federated States of Micronesia. A large reef flat extends beyond the coast in the area. The area is characterised by large coral heads surrounded by sandy substrates, particularly in shallow areas. The area encompasses four local dive sites: 'Eagle's Nest', 'Lionfish Wall', 'Yap Caverns', and 'Gilmaan Wall' (Manta Ray Bay Resort 2024). The trade wind season in the Federated States of Micronesia extends from December–April, while the rainy and typhoon season spans from May–November (J Hartup pers. obs. 2024). The area experiences currents that flow along both sides of the outer reefs, converging to form an eddy in the area off the tip of the island.

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (0 m) to 40 m based on the bathymetry of the area.

ISRA CRITERIA

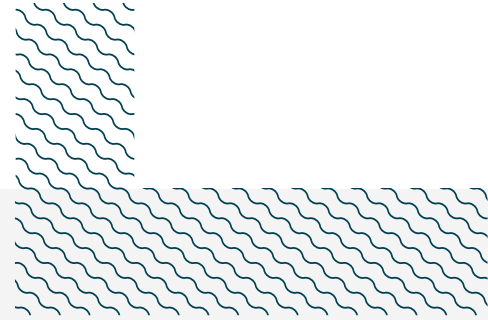
CRITERION A – VULNERABILITY

One Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. This is the Endangered Mangrove Whipray (Sherman et al. 2024).

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

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

Between 2014–2024, recreational dive surveys were conducted in the area (~20 per year between 2014–2019, ~35–40 per year between 2019–2024; J Hartup pers. obs. 2024). Mangrove Whiprays were observed during 75% of dives (range = 1–3 individuals, average = 2). Observations were year-round, however survey effort was highest between May–September. Mangrove Whiprays were always seen resting on the sandy substrate, and this is the only location around Yap where this species is observed. More information is needed to confirm the nature and function of this aggregation.



Acknowledgments

Julie Hartup (Micronesian Conservation Coalition; Manta Trust), Anthony Yalon (Division Chief Department of Resources and Development - Marine Resources Management Division and Council of Tamol), Tazmin Falon (Micronesia BMP Coordinator), and Asia O Armstrong (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

IUCN SSC Shark Specialist Group. 2024. Gilman ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

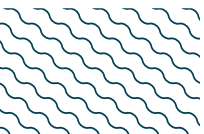
QUALIFYING SPECIES

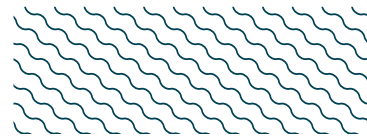
| Scientific Name | Common Name | IUCN Red List Category | Global Depth Range (m) | ISRA Criteria/Sub-criteria Met | | | | | | | | | |
|-----------------------------|------------------|------------------------|------------------------|--------------------------------|---|----|----|----|----|----|----|----|--|
| | | | | A | B | C1 | C2 | C3 | C4 | C5 | D1 | D2 | |
| RAYs | | | | | | | | | | | | | |
| <i>Urogymnus granulatus</i> | Mangrove Whipray | EN | 0-85 | X | | | | | | | X | | |

SUPPORTING SPECIES

| Scientific Name | Common Name | IUCN Red List Category |
|-----------------------------------|---------------------|------------------------|
| SHARKS | | |
| <i>Carcharhinus amblyrhynchos</i> | Grey Reef Shark | EN |
| <i>Carcharhinus melanopterus</i> | Blacktip Reef Shark | VU |
| <i>Triaenodon obesus</i> | Whitetip Reef Shark | VU |
| RAYS | | |
| <i>Aetobatus ocellatus</i> | Spotted Eagle Ray | EN |

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.





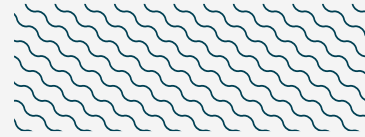
SUPPORTING INFORMATION

There are additional indications that this area is important for undefined aggregations of one shark and one ray species.

Between 2014-2024, recreational dive surveys were conducted in the area and reported aggregations of Grey Reef Sharks and Spotted Eagle Rays (~20 per year between 2014-2019, ~35-40 per year between 2019-2024; J Hartup pers. obs. 2024). Observations of both species were year-round, however, survey effort is highest between May and September.

Grey Reef Sharks were observed during 50% of dives in the area, and were always seen attending a cleaning station in the area. Observations coincide with mild currents in the area, with no observations of Grey Reef Sharks during slack or strong currents. Mild currents are thought to facilitate the sharks staying stationary above the cleaning station. An average of 1-2 individuals are observed attending the cleaning station at a time.

Spotted Eagle Rays are observed on every dive when the currents are strong in the area (J Hartup pers. obs. 2024). Between 1-10 individuals have been observed at a time, with an average of 3-4 rays observed gliding in the current. It is possible the currents in the area provide group resting opportunities for Spotted Eagle Rays (Jacoby et al. 2012), however more information is required to determine the nature and function of their aggregation.



REFERENCES

Manta Ray Bay Resort 2024. Dive Sites. Available at: <https://mantaray.com/sites/> Accessed October 2024.

Jacoby DMP, Croft DP, Sims DW. 2012. Social behaviour in sharks and rays: analysis, patterns and implications for conservation. *Fish and Fisheries* 13: 399-417. <https://doi.org/10.1111/j.1467-2979.2011.00436.x>

Sherman CS, Bennett R, Charles R, Fahmi, Haque AB, Jabado RW, Van Beuningen D. 2024. *Urogymnus granulatus*. *The IUCN Red List of Threatened Species 2024*: e.T161431A124484009.