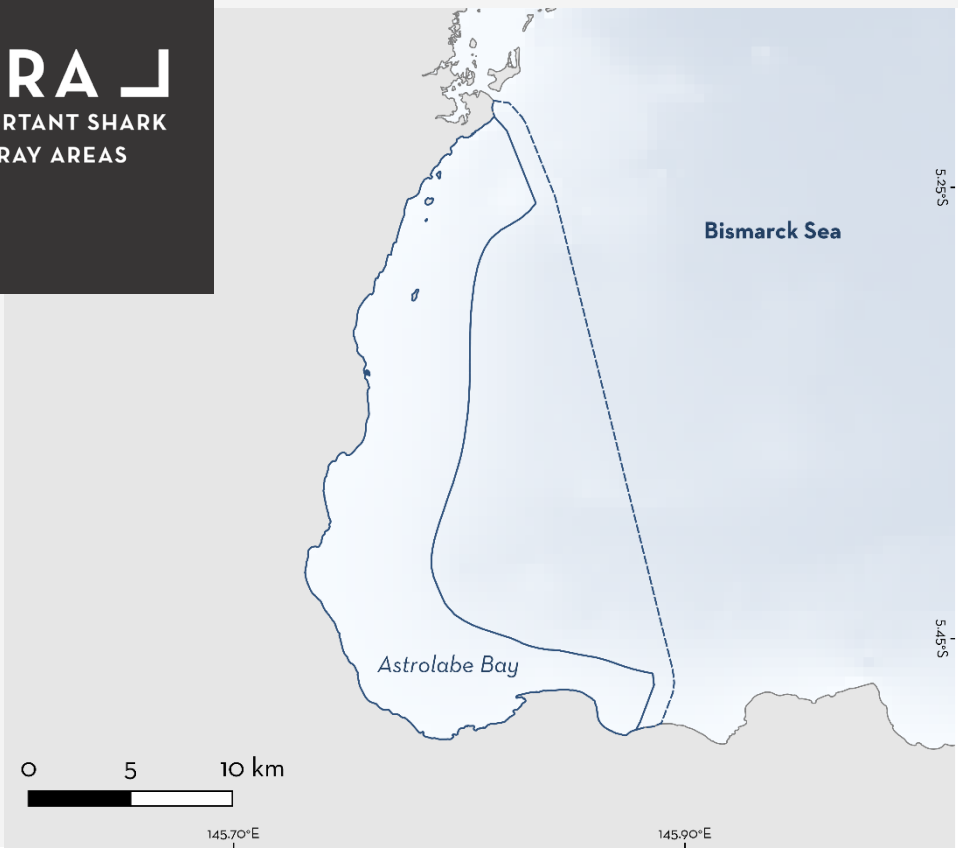
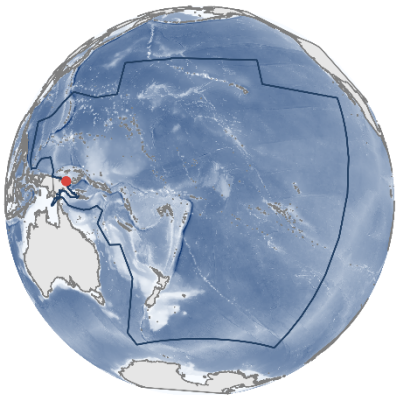
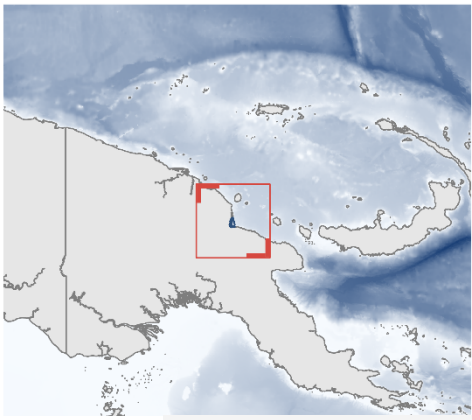
ISRA
IMPORTANT SHARK AND RAY AREAS







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

ASTROLABE BAY ISRA

New Zealand & Pacific Islands Region

PAPUA NEW GUINEA

0–300 metres

183.5 km²

SUMMARY

Astrolabe Bay is located on the north coast of Madang Province, Papua New Guinea. It encompasses the waters along the coast from Madang south to Songun within Astrolabe Bay. The area is characterised by nearshore canyons and inter-canyon platforms, mangroves, and estuaries. The area is influenced by river discharge into the bay, the New Guinea Under Current, and the northwestern monsoon. Within this area there are: **range-restricted species** (Sailback Houndshark *Gogolia filewoodi*).

CRITERIA

Criterion B – Range Restricted

DESCRIPTION OF HABITAT

Astrolabe Bay is located on the north coast of Madang Province, Papua New Guinea. It encompasses the waters along the coast from Madang south to Songun within Astrolabe Bay. The area is characterised by nearshore canyons and inter-canyon platforms, mangroves, and estuaries including the Gogal River mouth (Sagumai et al. 2025).

The area is influenced by river discharge into the bay, the New Guinea Under Current, the northwestern monsoon (December to March) which coincides with seasonal upwelling, and a rainy season extending from October to April (Shearman et al. 2001).

This Important Shark and Ray Area is benthic and pelagic, and is delineated from inshore and surface waters (0 m) to 300 m depth based on the bathymetry of the area.

ISRA CRITERIA

CRITERION B – RANGE RESTRICTED

Astrolabe Bay holds the regular and predictable presence of Sailback Houndshark as a resident range-restricted species. The type specimen for the species was originally collected from this area in 1970 (Compagno 1973). Between 2020–2022, this species was reported from the area as incidental catch during handline fishing for croakers (Sciaenidae) by fishers. Animals were reported from near the Gogol River mouth within the area at depths of 80–200 m (Sagumai et al. 2025). Landing and market surveys indicate that Sailback Houndsharks are occasionally caught in this fishery, particularly between March–July and the dry season from August–November (Sagumai et al. 2025). A total of five females ranging in size 59–76 cm total length (TL) were captured on two consecutive days in March 2020, and an additional male was captured in September 2022 measuring 73 cm TL (Sagumai et al. 2025). This area appears to be the only known habitat for the species, suggesting possible micro-endemism (Sagumai et al. 2025). Such restricted distribution highlights the importance of the area for Sailback Houndsharks, as being the only place globally where it has been reported. Sailback Houndsharks are restricted to this small area in Papua New Guinea which is outside of any Large Marine Ecosystems.

Acknowledgments

Michael Grant (James Cook University; Hasanuddin University; Piku Biodiversity Network), Yolarnie Amepou (Piku Biodiversity Network), Jack Sagumai (WWF Pacific), 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.

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. 2025. Astrolabe Bay 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												
Gogolia filewoodi	Sailback Houndshark	DD	73–200		X							

REFERENCES

Compagno LJV. 1973. *Gogolia filewoodi*, a new genus and species of shark from New Guinea (Carcharhiniformes: Triakidae), with a redefinition of the family Triakidae and a key to triakid genera. *Proceedings of the California Academy of Sciences* 4(39): 383–410.

Sagumai J, Samuel RH, White WT, Grant MI. 2025. Rediscovery of one of the world's rarest sharks, the sailback houndshark *Gogolia filewoodi*, in Papua New Guinea. *Journal of Fish Biology*. https://doi.org/10.1111/jfb.70196

Shearman P, Luick JL, Brunskill GJ, Sheaves M. 2001. A review of risks presented by the Ramu Nickel Project to the ecology of Astrolabe Bay in Papua New Guinea. Mineral Policy Institute.