

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

DAUGO ISLAND & HIRI CHIEF REEFS ISRA

New Zealand & Pacific Islands Region

SUMMARY

Daugo Island & Hiri Chief Reefs is located off Port Moresby on the southern coast of Papua New Guinea. The area encompasses the waters around a flat, rectangular island surrounded by a fringing coral reef. It is characterised by corals, leeward sand flats, seaweeds, and algae, along with scattered coral bommies. Within this area there are: **threatened species** and **range-restricted species** (Papuan Epaulette Shark *Hemiscyllium hallstromi*).

CRITERIA

Criterion A - Vulnerability; Criterion B - Range Restricted

PAPUA NEW
 GUINEA

0-30 metres

64.73 km²





DESCRIPTION OF HABITAT

Daugo Island & Hiri Chief Reefs is located off the southern coast of Papua New Guinea. The area includes the waters around Daugo Island, which spans 4.7 km and is surrounded by the Sinavi Reef, a 16 km long and 2.7 km wide reef with a steep forereef slope that drops sharply into the deep waters of the Papuan Gulf (Weber 1973). To the southeast, Nateara Reef extends 6 km eastward as a submerged barrier reef, with depths ranging from 4–6 m. The reef tops are notably flat and large areas which are exposed during low spring tides, reaching a maximum range of 1.7 m (Weber 1973). Nateara Reef is separated from Daugo Island by the narrow Basilisk Passage, which is 50–60 m deep, has strong tidal currents flow, and is not included within the area. The area is characterised by corals, leeward sand flats, including intertidal zones, tidal pools, seagrass and algae beds, and a complex three-dimensional coral structure with numerous crevices (Weber 1973; JA Blakeway pers. obs. 2024).

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 30 m depth based on the global depth range of the Qualifying Species.

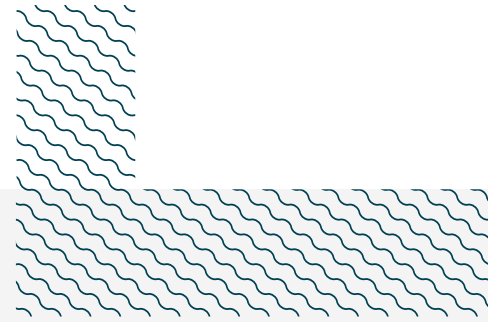
ISRA CRITERIA

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 Papuan Epaulette Shark (Dudgeon et al. 2016).

CRITERION B - RANGE RESTRICTED

Daugo Island & Hiri Chief Reefs holds the regular and predictable presence of the Papuan Epaulette Shark as a resident range-restricted species. This species is reported from the area based on local dive group observations diving in the area several times (>2) per month throughout the year (Port Moresby Sub Aqua Club [POMSAC] 2024). Photographic records (n = 16) from 2011–2024 confirm the regular presence of the species, observed between 4–20 m depth during diurnal and night dives and snorkelling activities (POMSAC 2024). Additionally, divers have observed two individuals engaged in mating behaviour, with the male biting the female's pectoral fin (POMSAC 2024). This suggests that the area may be a potentially important site for mating. The Papuan Epaulette Shark does not occur in any Large Marine Ecosystem; however, its range is small, extending along the southern coastline of Papua New Guinea from the Gulf of Papua to the western border of Milne Bay, and potentially into the Torres Strait (Dudgeon et al. 2020). Daugo Island & Hiri Chief Reefs is only one of a few primary areas where Papuan Epaulette Shark are regularly encountered in Papua New Guinea.



Acknowledgments

Jessica-Anne Blakeway (The University of the Sunshine Coast), Christine Dudgeon (The University of the Sunshine Coast), 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. 2024. Daugo Island & Hiri Chief Reefs ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

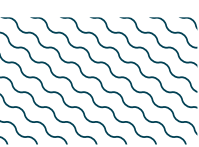
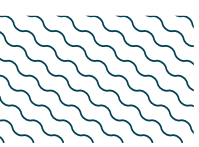
QUALIFYING SPECIES

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>Hemiscyllium hallstromi</i>	Papuan Epaulette Shark	VU	0-30	X	X								

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Nebrius ferrugineus</i>	Tawny Nurse shark	VU
<i>Stegostoma tigrinum</i>	Indo-Pacific Leopard Shark	EN
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.





REFERENCES

Dudgeon CL, Corrigan S, Yang L, Allen GR, Erdmann MV, Fahmi, Sugeha HY, White WT, Naylor GJP. 2020. Walking, swimming or hitching a ride? Phylogenetics and biogeography of the walking shark genus *Hemiscyllium*. *Marine and Freshwater Research* 71(9): 1107-1117. <https://doi.org/10.1071/MF19163>

Dudgeon CL, Heupel MR, Kyne PM, Allen G. 2016. *Hemiscyllium hallstromi*. *The IUCN Red List of Threatened Species* 2016: e.T41875A70709453. <https://dx.doi.org/10.2305/IUCN.UK.2016-1.RLTS.T41875A70709453.en>

Port Moresby Sub Aqua Club (POMSAC). 2024. <https://www.facebook.com/POMSAC/> Accessed September 2024

Weber JN. 1973. Reef corals and coral reefs in the vicinity of Port Moresby, south coast of Papua New Guinea. *Pacific Science* 27(4): 377-390.