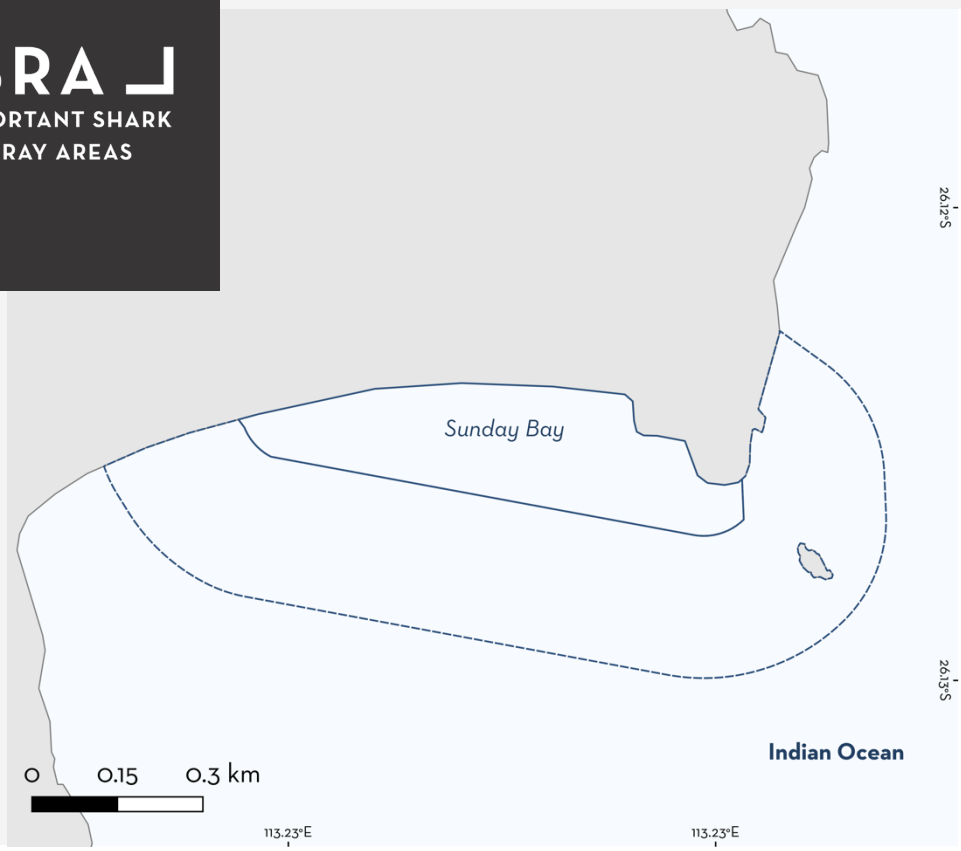
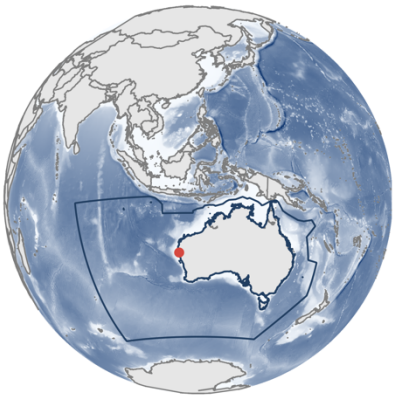
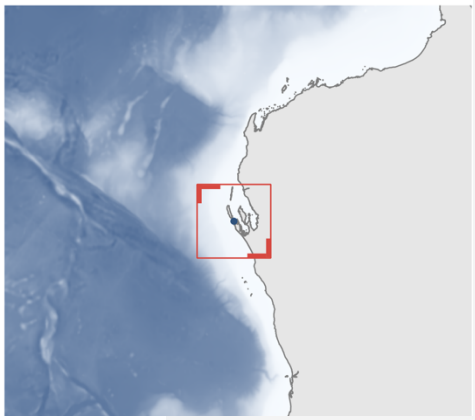
ISRA
IMPORTANT SHARK AND RAY AREAS







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

SUNDAY BAY ISRA

Australia and Southeast Indian Ocean Region

AUSTRALIA

0–10 metres

0.14 km²

SUMMARY

Sunday Bay is located in western Shark Bay, Western Australia, Australia. This area sits between South Passage and Denham Sound in a shallow bay characterised by an intertidal limestone platform covered with oysters and sea urchins. The climate is semi-arid and during the austral summer this area is protected from the prevailing southwest winds. Within this area there are: **undefined aggregations** (Nervous Shark *Carcharhinus cautus*).

CRITERIA

Sub-criterion C5 – Undefined Aggregations

DESCRIPTION OF HABITAT

Sunday Bay is located in western Shark Bay, Western Australia, Australia. This area sits between South Passage and Denham Sound within a deep, narrow, high-energy channel bordered by rugged limestone cliffs and rocky shores. The benthic sediment is composed of turf rubble (Sutton & Shaw 2020). South Passage serves as one of the main conduits for oceanic water exchange between the open Indian Ocean and the semi-enclosed Shark Bay (Sutton & Shaw 2020). This area is a shallow bay characterised by an intertidal limestone platform covered with oysters and a mix of echinoderm species (E Gosden pers. obs. 2025). It also includes a sandy beach and seagrass meadows.

This area has a semi-arid climate characterised by two main seasons: warm to hot austral summers (October–March) and mild winters (April–September). The bay's waters are warmer than adjacent oceanic waters in summer and cooler in winter (Nahas et al. 2005). Average sea surface temperatures are higher in summer (mean = 24.6 ± 1.0°C) than in winter (mean = 20.8 ± 1.7°C). The region experiences strong tidal currents and high-energy swell exposure. Water circulation is influenced by the Leeuwin Current, which brings warm, low-salinity tropical water southward, mixing with the bay's hypersaline inner waters. During the summer, this area is protected from the prevailing southwest winds whereas in winter it is exposed to the eastern winds (E Gosden pers. obs. 2025). This area is sheltered from the swell and currents.

This area overlaps with Shark Bay Marine Park (WA DBCA 2025).

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (0 m) to 10 m based on the bathymetry of the area.

ISRA CRITERIA

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

Sunday Bay is an important area for undefined aggregations of one shark species.

Between 2022–2024, shore-based and aerial (using drones) observations indicated that Nervous Sharks occur regularly and predictably in this area. Between October–April, this area was visited 4–7 days per week for tourism activities (E Gosden pers. obs. 2025; Shark Bay Eco Tours unpubl. data 2022–2024). There was an estimated 90% chance of observing Nervous Sharks from the shoreline. A total of 64 aggregations were recorded from this area involving 4–200 individuals (average = 25) (Shark Bay Eco Tours unpubl. data 2022–2024). The size of sharks were visually estimated ranging from 30–100 cm total length (TL) with most individuals between 40–80 cm TL. Nervous Shark size-at-birth is 35–40 cm TL (Ebert et al. 2021) and young-of-the-year (YOY) are estimated as <60 cm TL (White et al. 2002). Size-at-maturity is between 85–101 cm TL for females and 80–91 cm TL for males (Ebert et al. 2021). Therefore, individuals recorded are most likely neonates, YOY, and juveniles. When bait balls of small prey species (e.g., hardyheads belonging to the family Atherinidae) are observed, sharks are feeding on them. Additional information is required to understand the nature and function of these aggregations.

Acknowledgments

Emily Gosden (Shark Bay Eco Tours), Jake Mason (Shark Bay Eco Tours), and Adriana Gonzalez Pestana (IUCN SSC Shark Specialist Group – ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2025 ISRA Region 08 – Australia and Southeast Indian Ocean workshop for their contributions to this process.

We acknowledge the Traditional Owners of Country throughout Australia and recognise the continuing connection to land, waters, and culture. We pay our respects to Elders past, present, and emerging.

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

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Suggested citation

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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												
Carcharhinus cautus	Nervous Shark	LC	0–20							X		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Negaprion acutidens	Sharptooth Lemon Shark	EN
RAYS		
Aetobatus ocellatus	Spotted Eagle Ray	EN
Glaucostegus typus	Giant Guitarfish	CR
Himantura australis	Australian Whipray	LC

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.

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