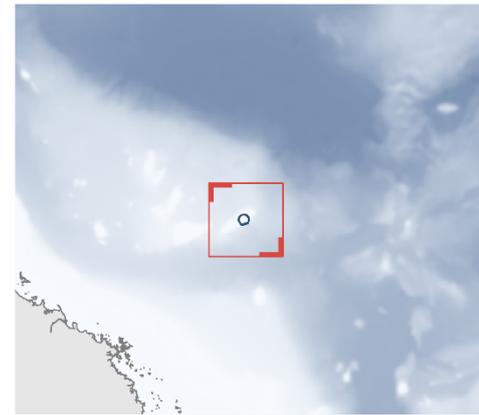
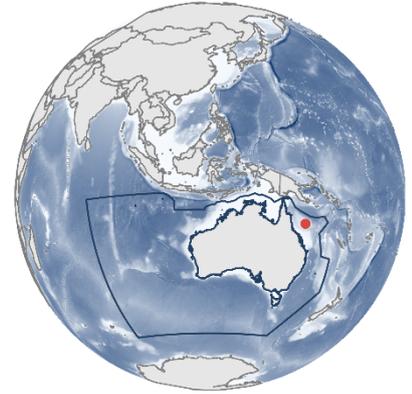


151.76°E 152.01°E

Coral Sea



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

## LIHOU REEF ISRA

### Australia and Southeast Indian Ocean Region

#### SUMMARY

Lihou Reef is located in the Coral Sea, off Queensland, Australia. The area is located ~600 km east of Townsville and encompasses part of the deep reef lagoon. The area is characterised by a mix of hard and soft corals, macroalgae, soft sediment, and coral bommies. The area is influenced by the westward-flowing South Equatorial Current and characterised by oligotrophic, clear ocean waters. The area overlaps with the Coral Sea Marine Park. Within this area there are: **threatened species** and **undefined aggregations** (Grey Reef Shark *Carcharhinus amblyrhynchos*).

— AUSTRALIA —

— 0-60 metres —

— 492.6 km<sup>2</sup> —

#### CRITERIA

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





## DESCRIPTION OF HABITAT

Lihou Reef is located in the Coral Sea, off Queensland, Australia. The area is located ~600 km east of Townsville and encompasses part of a 100 km long deep reef lagoon, a series of coral bommies rising from 60 m depth, and part of the east reef ring. The area is characterised by a mix of hard and soft corals, macroalgae, soft sediment, and coral bommies (Galbraith et al. 2022).

The area is influenced by the westward-flowing South Equatorial Current and characterised by oligotrophic, clear ocean waters that allow light to penetrate into deeper water. As a result, coral reef habitats on these reefs are known to extend beyond 100 m (Galbraith et al. 2024).

Lihou Reef overlaps with the Coral Sea Marine Park - National Park Zone (Parks Australia 2025).

This Important Shark and Ray Area is benthic and pelagic and is delineated from inshore and surface waters (0 m) to 60 m based on the bathymetry of the area.

## ISRA CRITERIA

### CRITERION A - VULNERABILITY

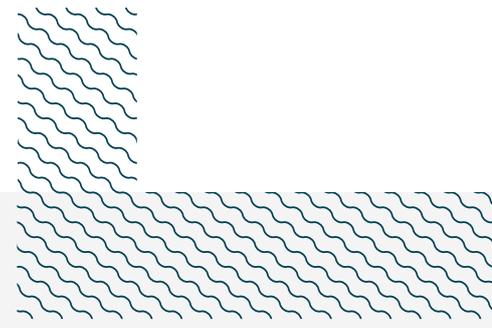
One Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occurs in the area. This is the Endangered Grey Reef Shark (Simpfendorfer et al. 2020).

### SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

Lihou Reef is an important aggregation area for one shark species.

Grey Reef Sharks have been observed aggregating in the reef lagoon around coral bommies within the area. Between 2020-2023, aggregations of up to 20 individuals were opportunistically recorded by scientists and recreational divers (Cruising the Edge 2023; A Hoey & E McClure unpubl. data 2025). Between 2018-2023, diver-based underwater visual census (UVC), Remotely Operated Vehicle (ROV), and Baited Remote Underwater Video Station (BRUVS) surveys were conducted in the area and other reefs of the Coral Sea (Hoey 2020; Galbraith et al. 2022; Hoey et al. 2024). Two aggregations of 5-10 juvenile Grey Reef Sharks ranging in size between 130-140 cm total length (TL) obtained through visual estimations, were reported in the area in 2020 from UVC (A Hoey & E McClure unpubl. data 2025). Size-at-birth for the species is 45-64 cm TL and size-at-maturity is 160-200 cm TL (Ebert et al. 2021). Additionally, travel blogs from recreational divers in 2023 reported aggregations of up to 20 sharks, mainly large Grey Reef Sharks, while diving around the coral bommies within the area (Cruising the Edge 2023).

Grey Reef Sharks have shown high residency and site fidelity in similar reefs in the Coral Sea and the Great Barrier Reef, highlighting the individual importance of the reefs such as this area (Espinoza et al. 2015). Due to the remoteness of the area, observations are opportunistic, but the large numbers of individuals and predictability of aggregations reported across different years highlight the importance of this area. Further information is required to confirm the nature and function of these aggregations.



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Andrew Hoey (James Cook University), Eva McClure (James Cook University), Adrianna Pisarczyk (James Cook University), 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 2025 ISRA Region 08 - Australia and Southeast Indian Ocean workshop for their contributions to this process.

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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	
<b>SHARKS</b>													
<i>Carcharhinus amblyrhynchos</i>	Grey Reef Shark	EN	0-280	X							X		

## SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
<b>SHARKS</b>		
<i>Carcharhinus albimarginatus</i>	Silvertip Shark	VU
<i>Triaenodon obesus</i>	Whitetip Reef Shark	VU

*IUCN Red List of Threatened Species Categories are available by searching species names at [www.iucnredlist.org](http://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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