

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

TOWARTIT REEF ISRA

Western Indian Ocean Region

SUMMARY

Towartit Reef lies ~9.5 km to the south of Port Sudan in the Red Sea. The area is characterised by high algal growth, and hard coral reefs with steep slopes and shallow depressions. Within this area there are: **threatened species** (e.g., Scalloped Hammerhead *Sphyrna lewini*) and **reproductive areas** (e.g., Grey Reef Shark *Carcharhinus amblyrhynchos*).

CRITERIA

Criterion A - Vulnerability; Sub-criterion C1 - Reproductive Areas

—	—
SUDAN	—
—	—
0-80 metres	—
—	—
81.4 km²	—
—	—





DESCRIPTION OF HABITAT

Towartit Reef lies ~9.5 km to the south of Port Sudan in the Red Sea. The area is characterised by coral reefs, a bay, and a headland. There are two reefs to the west and south, and one long reef to the east. Maximum depths in the area reach 80 m on the outside of the reef, and 22 m on the inside (Seawolf Safari 2023). These represent steep and closed depressed margins, respectively (Braithwaite 1982). Towartit Reef has by high algal growth and poor hard coral growth (Vine & Vine 1980). However, the substrate of the offshore part of this area is characterised by a higher density of hard coral (Nasr et al. 2015).

This Important Shark and Ray Area is pelagic and is delineated from inshore and surface waters (0 m) to 80 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A - VULNERABILITY

Two Qualifying Species within this area are considered threatened with extinction according to the IUCN Red List of Threatened Species™. These are the Critically Endangered Scalloped Hammerhead (Rigby et al. 2019) and the Endangered Grey Reef Shark (Simpfendorfer et al. 2020).

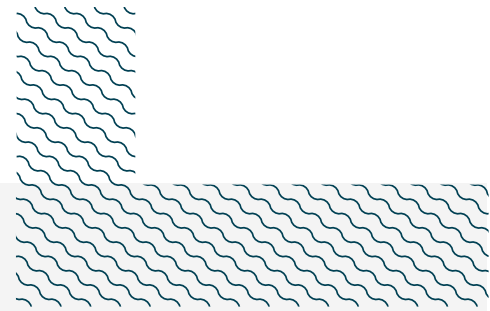
SUB-CRITERION C1 - REPRODUCTIVE AREAS

Towartit Reef is an important reproductive area for two shark species.

Data were collected from surveys regularly undertaken at a landing site in this area for over a decade (I Elhassan unpubl. data 2023). Although there are limited year and length data available, the information below provides a snapshot into the habitat-use of sharks in this area.

Landings data are available from surveys undertaken between 2013–2015 for Grey Reef Sharks (I Elhassan unpubl. data 2023). During this period, 255 animals of both sexes were captured by small-scale fisheries operating in the area. Of these, 178 (69.8% of animals) were considered neonates or young-of-the-year (YoY) based on their body size (48–66 cm total length [TL]) with these sizes similar to their size-at-birth of 45–60 cm TL (Ebert et al. 2021). Landings also reflect how the area supports Grey Reef Sharks at other lifecycle stages with 77 adults landed (113–154 cm TL) between 2013 and 2015 including pregnant females. The observed litter size of this species was 2–4 embryos (I Elhassan unpubl. data 2023). This area is the only known location in the Red Sea with evidence of reproduction of Grey Reef Sharks.

Landings data are available from surveys undertaken in 2013 for Scalloped Hammerheads (I Elhassan unpubl. data 2023) with further opportunistic surveys undertaken for over a decade supporting these data. In 2013, at least 164 Scalloped Hammerheads were captured in this area. These were considered neonates or YOY based on their body size, measuring 24–48 cm TL which is similar to the reported size-at-birth of 42–55 cm TL (Ebert et al. 2021). Scalloped Hammerhead neonate/YOY and pregnant females are landed in this area from December to March (Elhassan 2002; I Elhassan unpubl. data 2023). This area is one of the few remaining known locations in the Red Sea with enough information to show it is used for reproductive purposes by Scalloped Hammerheads.



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Igbal Elhassan (University of Bahri) and Ryan Charles (IUCN SSC Shark Specialist Group - ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2023 ISRA Region 7 - Western Indian Ocean workshop for their contributions to this process.

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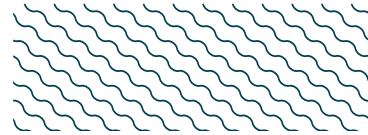
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QUALIFYING SPECIES

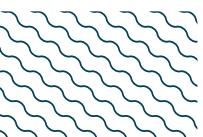
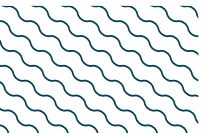
Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met								
				A	B	C1	C2	C3	C4	C5	D1	D2
SHARKS												
<i>Carcharhinus amblyrhynchos</i>	Grey Reef Shark	EN	0-280	X		X						
<i>Sphyrna lewini</i>	Scalloped Hammerhead	CR	0-1,043	X		X						

SUPPORTING SPECIES



Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Carcharhinus albimarginatus</i>	Silvertip Shark	VU
<i>Carcharhinus brevipinna</i>	Spinner Shark	VU
<i>Carcharhinus falciformis</i>	Silky Shark	VU
<i>Carcharhinus limbatus</i>	Blacktip Shark	VU
<i>Carcharhinus melanopterus</i>	Blacktip Reef Shark	VU
<i>Loxodon macrorhinus</i>	Sliteye Shark	NT
<i>Rhizoprionodon acutus</i>	Milk Shark	VU
<i>Sphyrna mokarran</i>	Great Hammerhead	CR
<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 Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.





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