

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

AGIG-RAS KASAR ISRA

Western Indian Ocean Region

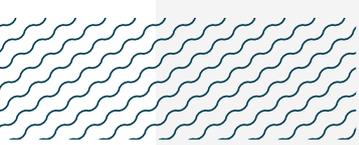
SUMMARY

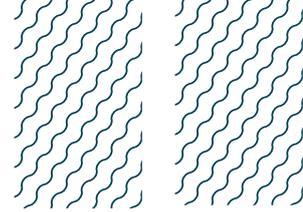
Agig-Ras Kasar is located on the border of Sudan and Eritrea in the Red Sea. It is characterised by mangrove forests, mudflats, reefs, and is influenced by seasonal flooding from the Baraka River. It partially overlaps with Suakin-Gulf of Agig Ramsar Site (Wetland of International Importance). Within this area there are: **threatened species** (e.g., Scalloped Hammerhead *Sphyrna lewini*); and **reproductive areas** (e.g., Green Sawfish *Pristis zijsron*).

CRITERIA

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

—	—
ERITREA	—
SUDAN	—
—	—
0-100 metres	—
—	—
1,649.64 km²	—
—	—





DESCRIPTION OF HABITAT

Agig-Ras Kasar lies 160 km to the southeast of Port Sudan on the border of Sudan and Eritrea. Agig Bay has a maximum length of 13 km, and a maximum width of 20 km. It receives water runoff from the seasonal Baraka River through streams during the flood. During flood season, *khors* (riverbeds) from the Baraka River bring the rain waters through Tokar Delta to Agig Bay (I Elhassan pers. obs. 2023). The area is characterised by lagoons, sandy shores, sand flats, and coral reefs (Osman et al. 2019). Ras Kasar is a headland marking the northernmost point of Eritrea. It is shallow, with sparse vegetation, and extensive mangrove, mud flat, seagrass, and seaweed habitats. The coast in Ras Kasar is fringed with reefs (I Elhassan pers. obs. 2023).

This area partially overlaps with the Suakin-Gulf of Agig Ramsar Site (Wetland of International Importance) (Ramsar 2023).

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 100 m based on the maximum depth used by the Qualifying Species.

ISRA CRITERIA

CRITERION A – VULNERABILITY

Four Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species™ regularly occur in the area. These are the Critically Endangered Green Sawfish (Harry et al. 2019) and Scalloped Hammerhead (Rigby et al. 2019), and the Vulnerable Blacktip Shark (Rigby et al. 2021) and Blacktip Reef Shark (Simpfendorfer et al. 2020).

SUB-CRITERION C1 – REPRODUCTIVE AREAS

Agig-Ras Kasar is an important reproductive area for three shark and one ray species.

Available information on Blacktip Sharks, Blacktip Reef Sharks, and Scalloped Hammerheads is from surveys regularly undertaken at a landing site in this area for over a decade. This is an important site as landings from fisheries operating in the area are centralised to this location (Elhassan 2002; I Elhassan unpubl. data 2023). Although there are limited year and length data available, the data below provide a snapshot into the habitat-use of sharks in this area.

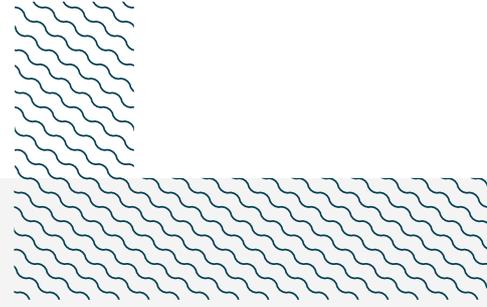
Catch data are available for Blacktip Sharks from 2013–2014. During this period, 924 Blacktip Sharks were recorded from the area. From these, 555 were considered neonates or young-of-the-year (YOY) based on their body size. These specimens measured ~50 cm TL which overlaps with their size-at-birth of 45–60 cm TL (Ebert et al. 2021). The catch also reflects how the area supports Blacktip Sharks at other lifecycle stages with 83 adults and 286 immature individuals recorded. Blacktip Shark neonates and pregnant females are caught in February each year. This area is particularly important in the Red Sea as it is the only location with sufficient information on the regular and predictable use of an area for reproductive purposes by Blacktip Sharks.

Catch data are available for Blacktip Reef Sharks from 2014. During that year, 3,354 Blacktip Reef Sharks were recorded from the area. From these, 196 were considered neonates or YOY based on their body size. These catches are made from July until August when they peak. Measurements are available for 21 adult females (197–276 cm TL) that were caught in 2014, which aborted 135 near-term embryos (73 males and 62 females). The litter size ranged between 2–10, and embryos measured 24–71 cm TL which overlaps with their size-at-birth of 38–72 cm TL (Ebert et al. 2021). This area is

particularly important in the Red Sea as it is the only location with sufficient information on the regular and predictable use of an area for reproductive purposes by Blacktip Reef Sharks.

Catch data are available for Scalloped Hammerheads from 2013. During that year, 193 Scalloped Hammerheads were recorded from the area. From these, 83 were considered neonates based on their body size. These specimens measured ~50 cm TL which overlaps with their size-at-birth of 42-55 cm TL (Ebert et al. 2021). The catch also reflects how the area supports Scalloped Hammerheads at other lifecycle stages with 31 adults and 79 immature individuals recorded. Scalloped Hammerhead neonates and pregnant females are caught from this area from December to March.

There are at least 28 contemporary records (since 2011) of Green Sawfish in Agig-Ras Kasar. This is the largest clustering of contemporary Green Sawfish records in the Western Indian Ocean. Green Sawfish regularly occur in the area (Elhassan 2018), with records as recent as the years 2021-2022 (I Elhassan unpubl. data 2023). Green Sawfish is the only sawfish species currently found in the Sudanese Red Sea (Elhassan 2018), and one of two remaining in the Western Indian Ocean (alongside Largetooth Sawfish *Pristis pristis*). In April 2021, 10 Green Sawfish were caught in Agig Bay with four of these classified as pups based on the body size and slightly healed umbilical scars. In December 2021, one gravid female Green Sawfish was caught. Between April and August 2022, at least 11 Green Sawfish were observed around Agig Bay. Between April and May 2022, fishers in Ras Kasar caught six Green Sawfish (including 4 pups) in shallow muddy areas close to mangrove habitat. In addition to these records, fishers responded to a campaign to document the presence of juvenile Green Sawfish in Kalafia in August 2022. Here, one live Green Sawfish was observed resting on a sandy substrate with sparse stone (I Elhassan unpubl. data 2023). The timing of these observations infers that the breeding season for Green Sawfish in this area begins in January and peaks in March. These observations are consistent with known habitat preferences (Elhassan 2018), further inferring that Agig-Ras Kasar is an important reproductive area for Green Sawfish.



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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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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 limbatus</i>	Blacktip Shark	VU	0-140	X		X							
<i>Carcharhinus melanopterus</i>	Blacktip Reef Shark	VU	0-75	X		X							
<i>Sphyrna lewini</i>	Scalloped Hammerhead	CR	0-1,043	X		X							
RAYS													
<i>Pristis zijsron</i>	Green Sawfish	CR	0-100	X		X							

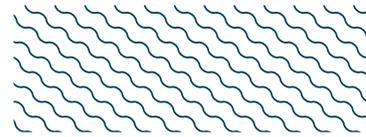
SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Carcharhinus albimarginatus</i>	Silvertip Shark	VU
<i>Carcharhinus amblyrhynchos</i>	Grey Reef Shark	EN
<i>Carcharhinus brevipinna</i>	Spinner Shark	VU
<i>Carcharhinus falciformis</i>	Silky Shark	VU
<i>Carcharhinus sorrah</i>	Spottail Shark	NT
<i>Galeocerdo cuvier</i>	Tiger Shark	NT
<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
RAYS		
<i>Glaucostegus halavi</i>	Halavi Guitarfish	CR
<i>Rhynchobatus djiddensis</i>	Whitespotted Wedgefish	CR

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.



SUPPORTING INFORMATION



There are additional indications that Agig Ras Kasar is an important reproductive area for Grey Reef Shark, Spinner Shark, Silky Shark, Spottail Shark, Great Hammerhead, and Halavi Guitarfish (Elhassan 2002; I Elhassan unpubl. data 2023) but further supporting evidence is required to demonstrate the regular and predictable observations of neonates/YOY individuals.

Catch data are available for Grey Reef Sharks from 2013-2014. During this period, 793 Grey Reef Sharks were recorded from this area. From these, 448 were considered neonates or YOY based on their body size. The catch also indicates that the area supports Grey Reef Sharks at other lifecycle stages with records of 120 adults, 64 sub-adults, and 161 juveniles. Grey Reef Shark neonates/YOY and pregnant females are caught from December to March, and from July to August.

Catch data are available for Spinner Sharks from 2013-2014. During this period, 76 Spinner Sharks were recorded from this area. From these, 30 were considered neonates or YOY based on their body size. The catch also indicates that the area supports Spinner Sharks at other lifecycle stages with records of 15 adults (14 females and one male) and 31 juveniles.

Catch data are available for Silky Sharks from 2013. During that year, 86 Silky Sharks were recorded from this area. From these, 17 were considered neonates or YOY based on their body size although it is noted that fishers sometimes discard these size classes. The catch also reflects how the area supports Silky Sharks at other lifecycle stages with records of 24 adults, 14 sub-adults, and 31 juveniles. The breeding season for Silky Sharks in this area is from May to June.

Catch data are available for Spottail Sharks from 2014. During that year, 323 Spottail Sharks were recorded from this area. From these, 171 were considered neonates and YOY based on their body size. The catch also reflects how the area supports Spottail Sharks at other lifecycle stages with records of 92 adults, 42 sub-adults, and 15 juveniles.

Catch data are available for Great Hammerheads from 2013. Throughout that year, 43 Great Hammerheads were recorded from this area. From these, 16 were considered neonates or YOY based on their body size. The catch also indicates that this area supports Great Hammerheads for other lifecycle stages with records of 13 adults, 7 sub-adults, and 7 juveniles. Great Hammerhead neonates/YOY and pregnant females are caught from this area from December to March.

For Halavi Guitarfish, there are no catch data available other than five individuals that were caught which can be classified as neonates/YOY due to measuring ~50 cm TL.



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