

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

AL SAADIYAT ISRA

Western Indian Ocean Region

SUMMARY

Al Saadiyat is located in the southern Arabian/Persian Gulf (hereafter 'the Gulf'), United Arab Emirates. It is a shallow coastal area composed of semi-enclosed bays and lagoons, that are connected to Gulf waters through deeper channels. This area partly overlaps with the Saadiyat Marine National Park. Within this area there are: **threatened species** (e.g., Halavi Guitarfish *Glaucostegus halavi*); **range-restricted species** (Pakistan Whipray *Maculabatis arabica*); and **reproductive areas** (Halavi Guitarfish).

CRITERIA

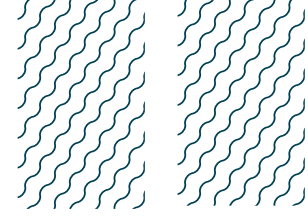
Criterion A - Vulnerability; Criterion B - Range Restricted; Sub-criterion C1 - Reproductive Areas

— —
UNITED ARAB EMIRATES
 — —

0-6 metres
 — —

207.75 km²
 — —





DESCRIPTION OF HABITAT

Al Saadiyat is located in the southern Arabian/Persian Gulf (hereafter ‘the Gulf’), United Arab Emirates (UAE). It is a shallow coastal area composed of semi-enclosed bays and lagoons, that are connected to the open Gulf through several deeper channels. The substrate is mostly sandy or rocky with patches of coral rubble.

Localised peak winds (known as ‘shamals’) cause variations in water current speed and direction in this area, which induces significant variations in sea-bottom salinity and temperature (Cavalcante et al. 2016). Short-term shamal winds influence oceanographic processes along the coastline, resulting in the formation of large-scale eddies extending across the entire Gulf. Surface water currents form an anticlockwise gyre across the Gulf (Abdelrahman & Ahmad 1995).

The waters of the area are subject to high annual temperature ranges (range: ~15–35°C; mean: 27–28°C), high salinity (41–43‰), and relatively high turbidity (Riegl & Purkis 2012). Each summer, the Gulf is the world’s hottest sea (Riegl et al. 2011). Due to its shallow depth (mean depth = 37 m), restricted water exchange with the Indian Ocean, and the hyper-arid nature of its surrounding environment, summer Sea Surface Temperatures in the Gulf may exceed 35°C (Sheppard et al. 1992; Coles 2003), with temperatures >33°C occurring for several months (Riegl et al. 2012).

This Important Shark and Ray Area is delineated from inshore and surface waters (0 m) to 6 m depth based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A – VULNERABILITY

Two 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 Halavi Guitarfish (Kyne & Jabado 2019) and Pakistan Whipray (Dulvy et al. 2017).

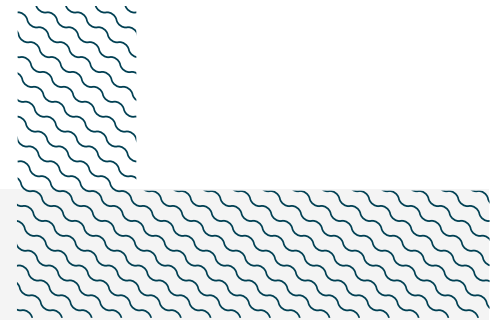
CRITERION B – RANGE RESTRICTED

This area holds the regular presence of Pakistan Whipray as a resident range-restricted species. This species occurs in the boreal autumn and winter in the area and is regularly encountered and caught in longline surveys (Al Hameli 2021). To determine the occurrence and distribution of sharks in the area, longline and drumline surveys were conducted opportunistically on a weekly basis from September 2019 to March 2021 (Al Hameli 2021). Over the course of the surveys, a total of 28 Pakistan Whiprays were caught (representing 39% of the total catch of sharks and rays in the area). All individuals were female measuring 30–70 cm disc width (DW; Al Hameli 2021). This species is documented in waters of Iraq and Iran, however, it has not previously been recorded in waters adjacent to the area, including in national trawl surveys of UAE waters and bi-weekly landing site surveys in Abu Dhabi from 2010–2014 (SM Al Hameli unpubl. data 2023; RW Jabado unpubl. data 2023). This species occurs primarily in the Arabian Sea Large Marine Ecosystem.

SUB-CRITERION C₁ – REPRODUCTIVE AREAS

Al Saadiyat is important for the reproduction of one ray species.

Frequent repeated sightings of neonate (~30–40 cm total length [TL]) Halavi Guitarfish are made on the sand banks of the area, every year, from October to May (SM Al Hameli unpubl. data 2023; including regular citizen science reports since 2010 [Elasmo Project unpubl. data 2010–2023]). The size-at-birth for this species is 29 cm TL and size-at-maturity of both males and females is 83 cm TL (Gohar & Mazhar 1964; Moore & Peirce 2013; Last et al. 2016). The season where neonates are recorded also corresponds to the time of year where adult females are highly abundant in the area (October to May), while adult males are more abundant during the rest of the year (SM Al Hameli unpubl. data 2023).



Acknowledgments

Shamsa Al Hameli (Environment Agency – Abu Dhabi; United Arab Emirates University), Aaron C. Henderson (United Arab Emirates University), Stephan Bruns (United Arab Emirates University), and Théophile L. Mouton (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.

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. 2023. Al Saadiyat ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

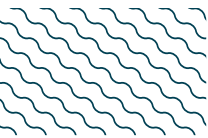
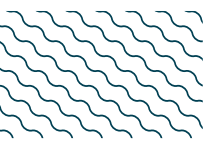
QUALIFYING SPECIES

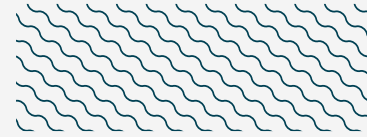
Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met								
				A	B	C1	C2	C3	C4	C5	D1	D2
RAYS												
<i>Glaucostegus halavi</i>	Halavi Guitarfish	CR	0-100	X		X						
<i>Maculabatis arabica</i>	Pakistan Whipray	CR	0-37	X	X							

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Chiloscyllium arabicum</i>	Arabian Carpetshark	NT
RAYS		
<i>Aetobatus ocellatus</i>	Spotted Eagle Ray	EN
<i>Himantura uarnak</i>	Coach Whipray	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.





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