



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

DAYMANIYAT ISLANDS ISRA

Western Indian Ocean Region

SUMMARY

Daymaniyat Islands is an archipelago located in the Muscat Governorate, Oman. This area is composed of nine islands and is characterised by hard and soft corals and rocky and sandy areas. Fish spawning events occur in the summer when upwelling produces phytoplankton blooms. The area overlaps one protected area, one Key Biodiversity Area, and one Ecologically or Biologically Significant Marine Area. Within the area there are: **threatened species** and **undefined aggregations** (Whale Shark *Rhincodon typus*).

CRITERIA

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

OMAN

0-60 metres

114.81 km²

DESCRIPTION OF HABITAT

Daymaniyat Islands is an archipelago located in the Muscat Governorate, Oman. This archipelago is composed of nine islands and lies ~18 km off the coast of Barka and ~70 km west of Muscat (Sheppard & Salm 1988). The area is highly productive and host to a dense coverage and diversity of hard and soft corals, especially in areas >10 m depth that host seasonal fish spawning events during the boreal summer (Sheppard & Salm 1988). In addition to coral reefs, the area is characterised by rocky and sandy areas. Cool water advected to the area in summer produces upwelling events and phytoplankton blooms (McIlwain et al. 2011). Maximum sea surface temperatures (~32°C) occur in May, while minimum (~22°C) occur in February (AlBusaidi & Al-Hashmi 2023).

The area overlaps with the Daymaniyat Islands Nature Reserve, the Daymaniyat Islands Key Biodiversity Area (KBA 2023), and the Daymaniyat Islands Ecologically or Biologically Significant Marine Area (EBSA; CBD 2023).

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

ISRA CRITERIA

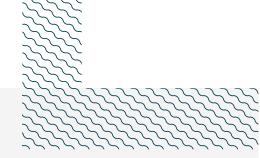
CRITERION A - VULNERABILITY

The one Qualifying Species within the area is considered threatened with extinction according to the IUCN Red List of Threatened Species[™]. The Whale Shark is assessed as Endangered (Pierce & Norman 2016).

SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

Daymaniyat Islands is an important area for undefined aggregations of one shark species.

From records starting in 2004 (direct observations and citizen science), 137 individual Whale Sharks were identified in the Daymaniyat Islands. Aggregations of up to 40 individuals occur regularly and predictably between April and November, with a peak in September (Robinson et al. 2016; D Robinson unpubl. data. 2023). Most sightings were recorded at the 'Junn' and 'Aquarium' dive sites (19 encounters), followed by 'Sira' (9 encounters; Robinson et al. 2016). Kernel Density Analysis of satellite tracked Whale Sharks tagged off Qatar indicated the Daymaniyat Islands were the third-most used area in the Persian/Arabian Gulf and Gulf of Oman area (Robinson et al. 2016). Aggregations of this species may be related to feeding on seasonal fish spawn during summer, but more evidence is needed to fully understand the nature and function of these aggregations.



Acknowledgments

David Robinson (Sundive Research), Oliver Taylor (Five Oceans Environmental Services), Jenny R. Bortoluzzi (IUCN SSC Shark Specialist Group – ISRA Project), and Emiliano García-Rodríguez (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. Daymaniyat Islands 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								
				Α	В	C1	C2	C3	C4	C ₅	Dı	D2
SHARKS												
Rhincodon typus	Whale Shark	EN	O-1,928	Χ						Χ		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category		
SHARKS				
Carcharhinus leucas	Bull Shark	VU		
Carcharhinus melanopterus	Blacktip Reef Shark	VU		
Negaprion acutidens	Sharptooth Lemon Shark	EN		
Stegostoma tigrinum	Indo-Pacific Leopard Shark	EN		
RAYS				
Neotrygon caeruleopunctata	Bluespotted Maskray	LC		
Pastinachus sephen	Cowtail Ray	NT		
Rhina ancylostomus	Bowmouth Guitarfish	CR		
Taeniurops meyeni	Blotched Fantail Ray	VU		
Torpedo sinuspersici	Gulf Torpedo	DD		

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 suggesting that Daymaniyat Islands is potentially an important area for undefined aggregations of one shark species. Based on diver logbooks between 2018–2020, Indo-Pacific Leopard Sharks were observed on almost every dive in the Daymaniyat Islands year-round at depths <40 m. Animals were commonly seen in pairs and in larger groups of 5–6 individuals (Oman Aggressor 2020). Courtship behaviour has been observed, however, more information is required to determine the nature and function of these aggregations.

REFERENCES

AlBusaidi S, Al-Hashmi K. 2023. Seasonal biomass and composition of mesozooplankton communities in Sea of Oman and Arabian Sea. *Marine Biology Research* 19: 94-107. https://doi.org/10.1080/17451000.2023.2206138

Convention on Biological Diversity (CBD). 2023. Daymaniyat Islands. Ecologically or Biologically Significant Areas (EBSAs). Available at: https://chm.cbd.int/database/record?documentID=237824 Accessed September 2023.

Key Biodiversity Areas (KBA). 2023. Key Biodiversity Areas factsheet: Daymaniyat Islands. Available at: https://www.keybiodiversityareas.org/site/factsheet/8221 Accessed September 2023.

McIlwain JL, Harvey ES, Grove S, Shiell G, Al Oufi H, Al Jardani N. 2011. Seasonal changes in a deepwater fish assemblage in response to monsoon-generated upwelling events. *Fisheries Oceanography* 20: 497–516. https://doi.org/10.1111/j.1365-2419.2011.00598.x

Oman Aggressor. 2020. Diving logbooks 2018–2020. Available at: https://www.aggressor.com Accessed August 2023.

Pierce SJ, Norman B. 2016. Rhincodon typus. The IUCN Red List of Threatened Species 2016: e.T19488A291. https://dx.doi.org/10.2305/IUCN.UK.2016-1.RLTS.T19488A2365291.en

Robinson DP, Jaidah MY, Bach S, Lee K, Jabado RW, Rohner CA, March A, Caprodossi S, Henderson AC, Mair JM, et al. 2016. Population structure, abundance and movement of whale sharks in the Arabian Gulf and the Gulf of Oman. *PLoS ONE* 11(6): e0158593. https://doi.org/10.1371/journal.pone.0158593

Sheppard CRC, Salm RV. 1988. Reef and coral communities of Oman, with a description of a new coral species (order Scleractinia, genus Acanthastrea). Journal of Natural History 22: 263–279. https://doi.org/10.1080/00222938800770201