

# Miani Hor IMMA

## Description

Miani Hor, a lagoon located along the Balochistan coast of Pakistan (northern Arabian Sea), is 60 km long and 4 to 5 km wide. Two ephemeral rivers, Porali and Windor, enter the bay in the centre and near its mouth respectively. Most of the lagoon is surrounded by sand dunes. The lagoon has deep water (25-30 m) as well as vast mudflats. Three species of mangroves, *Avicennia marina*, *Rhizophora mucronata* and *Ceriops tagal*, occur naturally in this lagoon. Important fisheries of the lagoon include shrimp, finfish and jellyfish, and these are managed by coastal communities. A resident population of Indian Ocean humpback dolphin (*Sousa plumbea*; Figs. 1 and 3) exists in the lagoon (Gore *et al.*, 2012; Kiani, 2014; Kiani and Van Waerebeek, 1995; Siddiqui, *et al.*, 2008). Miani Hor was declared a Ramsar Site in 2001 due to its biological diversity.

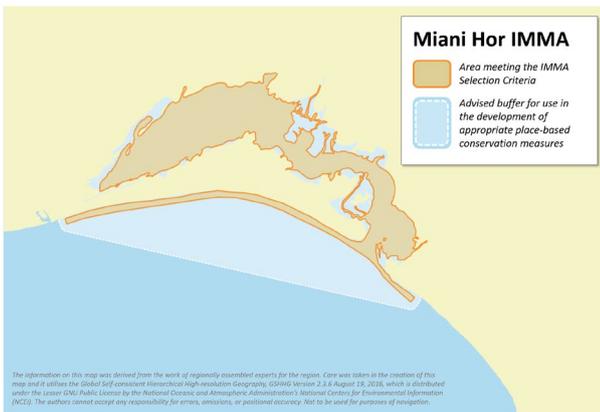
During the last 5 years, dolphin-watching tourism started in Miani Hor and is considered an alternate source of livelihood for coastal communities, yet it is still poorly organized and regulated.

## Criterion A: Species or Population Vulnerability

The IUCN status of the two cetacean species in the area is considered threatened, with the Indian Ocean humpback dolphin being classed as Endangered (EN) and Indo-Pacific finless porpoise



Figure 1: Indian Ocean humpback dolphins observed in Miani Hor lagoon. Photo: Moazzam Khan.



## Area Size

402 km<sup>2</sup>

## Qualifying Species and Criteria

Indian Ocean humpback dolphin – *Sousa plumbea*

Criterion A, B1

Indo-Pacific finless porpoise –

*Neophocaena phocaenoides*

Criterion A

## Marine Mammal Diversity

*Sousa plumbea*, *Tursiops aduncus*, *Neophocaena phocaenoides*

## Summary

Miani Hor is a coastal lagoon on the Balochistan coast of Pakistan in the northern Arabian Sea. This lagoon includes deep (25-30 m) channels near the lagoon's entrance to the sea as well as vast mudflats and mangrove forests. The lagoon hosts a resident population of Endangered Indian Ocean humpback dolphins (*Sousa plumbea*). A survey carried out in 2012 estimated the population to number between 60 and 80 individuals. Vulnerable Indo-Pacific finless porpoises (*Neophocaena phocaenoides*) are also occasionally seen in Miani Hor, but further research is required to understand their population status and whether or not they are resident in the lagoon. Both species are affected by the threats of fisheries bycatch and habitat degradation through mangrove cutting, pollutants, and increased vessel traffic among other impacts.



Figure 2: Distribution of Indian Ocean humpback dolphin, *Sousa plumbea*, sightings made during nine boat surveys in Miani Hor lagoon, July 2011 and June 2012. From: Kiani and van Waerebeek, 1995

assessed as Vulnerable (VU). The population is threatened mainly because of anthropogenic activity, including entanglements in gillnets, degradation of habitat (mangrove denudation) and infrastructure development (construction of harbours). A few strandings of dolphins were noticed in the lagoon during the studies carried out during July 2011 to June 2012 and in almost all cases these dolphins died due to entanglement in gillnets. There are no major human population centres around the lagoon and fishermen of three nearby settlements consider the dolphins and porpoises as sacred animals; therefore, there are no recent records of any deliberate killing of a dolphin. In previous decades, fishermen used to kill about two to three dolphins annually for extracting their fats, which was believed locally to have some medicinal properties. However, this practice is no longer performed in these areas.

## Criterion B: Distribution and Abundance

### Sub-criterion B1: Small and Resident Populations

Miani Hor is known for having a small resident population of humpback dolphins. A single event that could significantly alter the long-term survival of the population. A total of 36 Indian Ocean humpback dolphin (*Sousa plumbea*) sightings were recorded in waters 3–13 m deep at Miani Hor during nine survey days from July 2011 to June 2012 as conducted by the SDO (Fig. 2). The mean group size was 11.89 to 13.59 animals and the largest group, estimated at 68 animals, was encountered in 6 m deep water on 12 November 2010. More recently a survey carried out by a community-based organization revealed that the total number of dolphins in the area is only between 60 and 80.



Figure 3: Mother and calf Indian Ocean humpback dolphins (*Sousa plumbea*), observed in Miani Hor lagoon. From: SDO, 2012.

## Supporting Information

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## Acknowledgements

We would like to thank the participants of the 2019 IMMA Regional Expert Workshop held in Salalah, Oman for the identification of IMMAs in the Western Indian Ocean and Arabian Seas. Funding for the identification of this IMMA was provided to the Global Ocean Biodiversity Initiative by the International Climate Initiative (IKI). The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) supports this initiative on the basis of a decision adopted by the German Bundestag. Support was also provided by Whale and Dolphin Conservation and the Tethys Research Institute.



**MARINE MAMMAL  
PROTECTED AREAS  
TASK FORCE**



Supported by:



Federal Ministry for the  
Environment, Nature Conservation,  
Building and Nuclear Safety



based on a decision of the German Bundestag



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CONSERVATION

Suggested Citation: IUCN-Marine Mammal Protected Areas Task Force, 2021. Miani Hor IMMA Factsheet. <https://www.marinemammalhabitat.org/wp-content/uploads/imma-factsheets/WesternIndianOcean/miani-hor-WesternIndianOcean.pdf>. Downloaded on (day month year).

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