

Area Size

340 km²

Qualifying Species and Criteria

Irrawaddy dolphin – *Orcaella brevirostris*

Criterion A; B (1)

Other Marine Mammal Species

Documented

Dugong dugon, *Globicephala macrorhynchus*,
Grampus griseus, *Kogia sima*, *Pseudorca
 crassidens*, *Stenella attenuata*, *Tursiops aduncus*

Summary

The Iloilo and Guimaras Straits are shallow bodies of water connecting the Sulu and Visayan Seas in the Central Philippines. This area hosts one of two Critically Endangered subpopulations of Irrawaddy dolphins (*Orcaella brevirostris*) in the Philippines. Estimated to number fewer than 30 individuals, this resident population is decreasing as a result of fisheries bycatch and vessel strikes. Sightings of Irrawaddy dolphins in this IMMA are concentrated in areas with freshwater inputs from rivers on the islands of Panay, Guimaras and Bago-Pulupandan, Negros.

Iloilo and Guimaras Straits IMMA

Description

The Iloilo and Guimaras Straits are shallow bodies of water, which separate Panay, Guimaras, and Negros Islands in Central Philippines. Water depth in Iloilo Strait ranges from 1 to 60m while Guimaras Strait is relatively shallower with depth ranges between 0.5 to 45m. Water turbidity ranges from 1.2 to 58.6 NTU and salinity between 28–29 ppt. Sightings of Irrawaddy dolphins occurred in shallow estuaries, in water depths less than 10m, with turbidity between 15 to 35 NTU. Historically, both areas appear to have been adjacent to dense mangroves, but mangrove cover has been reduced drastically and has been replaced by aquaculture farms and human settlement. Other notable structures adjacent to the habitat include a coal-fired power plant, alcohol distillery plants, and sea ports.

Criterion A: Species or Population Vulnerability

The Irrawaddy dolphin, *Orcaella brevirostris*, is an endangered marine mammal found only in the Indo-Pacific region. Small isolated populations are often centred near estuaries and in semi-enclosed, protected bodies of water with freshwater inputs, such as bays, lagoons, and river systems (Arnold, 2002; Reeves et al., 2008). Until recently, the Malampaya Sound population of Irrawaddy dolphin in Palawan, declared by the IUCN as Critically Endangered (Minton et al., 2017), was the only population known in Philippine waters (Dolar et al., 2009). A second population was found in the Visayas in 2007, more than 300 km from the island of Palawan (de la Paz et al., 2017, 2020). The population exists in an estuary and very close to human fishing

grounds, making the dolphins vulnerable to boat strikes and fishing gear entanglement. In 2010 one calf stranded on the Guimaras coast and in 2011 two animals (mother and calf) stranded on Negros (Dolar, 2012). This constitutes 4% mortality for 2010, and 8% for 2011 (Dolar, 2012). This is above the 1-2% threshold considered sustainable for cetaceans. One mortality every year indicates that the population decline is unsustainable. Identified threats include possible net entanglement, boat collisions, pollution from industrial plants, habitat destruction, prey depletion, and the Philippine government's plan to construct a bridge to connect the 3 islands, which will cut directly across the Irrawaddy dolphins' habitat. Interviews across the Irrawaddy dolphins' habitat. Interviews with elderly fishers and residents conducted at that time suggested that the dolphins' habitat has shrunk considerably and their numbers have declined dramatically in the last 15-20 years.



Figure 1: Pilot breach. Photo: Jozette Hisu-an

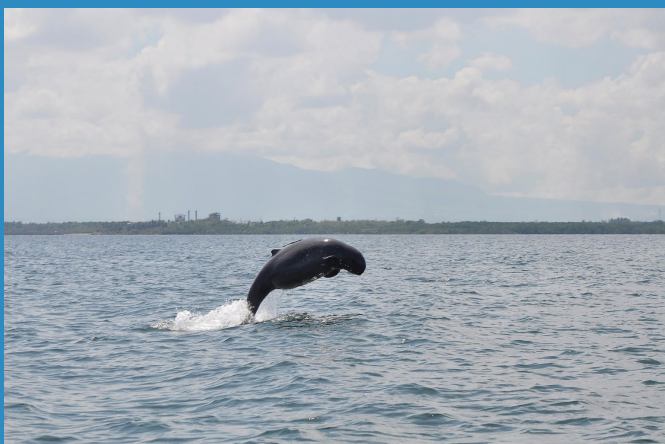


Figure 2: TN breach. Photo: Kaila Ledesma-Trebol

Criterion B: Distribution and Abundance

Sub-criterion B1: Small and Resident Populations

Only a very small population of Irrawaddy dolphins occurs in this area. The first population estimate using recapture and photo-ID techniques made in 2010-2012 was 23 dolphins (CV = 23.6%, 95% CI of 15-36 dolphins) (Dolar, 2012). The second estimate using the same method made in 2013-2014 was 21 dolphins (CV = 25.5%, 95% CI 10-31 dolphins) (SU-IEMS Report, 2014), and the most recent report is 13 individuals (CV = 20.89%; 95% CI = 9-19 dolphins) (de la Paz et al., 2017).



Figure 3: Putol and calf. Photo: Manuel Eduardo L. de la Paz

Supporting Information

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Acknowledgements

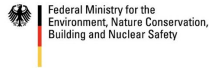
We would like to thank the participants of the 2018 IMMA Regional Expert Workshop for the identification of IMMAs in the Northeast Indian Ocean and Southeast Asian Seas region. Funding for the identification of this IMMA was provided by the Global Ocean Biodiversity Initiative funded by the German government's International Climate Initiative (IKI). 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



Suggested Citation: IUCN-MMPATF (2022) Iloilo and Guimaras Straits IMMA Factsheet. IUCN Joint SSC/WCPA Marine Mammal Protected Areas Task Force, 2022.

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