

Bazaruto Archipelago & Inhambane Bay IMMA

Description

Archipelago and Inhambane Bay are on the East coast of Central Mozambique from the Save River in the north (20° 54' 15.01" S, 35° 03' 45.91" E) to Tofino (23.8569° S, 35.5480° E) in the south. Both bays have extensive shallow waters, with large tidal ranges and extensive seagrass beds. Inhambane Bay was known in the past to host substantial numbers of dugongs, though few, if any, remain. Some 250 to 300 dugongs remain in the Bazaruto Archipelago and population viability modelling suggests this population is viable, given zero mortality through anthropogenic causes. Numerous other cetacean species are resident, or visit the area.

The result of the past three decades of research in the Western Indian Ocean led to a comprehensive research project on the numbers and distribution of dugongs along the East African coast (Cockcroft et al., 2018). Dugong 'hotspots' in Kenya, Tanzania and Mozambique were identified through historical knowledge, fisher questionnaires and satellite telemetry. At 'hotspots' further questionnaire and focal group surveys were undertaken, as well as aerial surveys, including unpublished aerial surveys between 2007 and 2018 (see Table 1). Overall the results for this research indicate that dugongs are all but extirpated from the East African region, other than in the Bazaruto Archipelago area (Findlay et al., 2011). Consequently, this is believed to be the last and only viable dugong population left off East Africa (Cockcroft, et al., 2018).

Criterion A – Species or Population Vulnerability

Dugong dugon (Muller, 1776) has been assessed as a Vulnerable species on the IUCN Red List since 1982. The results of all recent research in the Western Indian Ocean indicate that the only viable population of dugongs that remain in the entire region are in the Bazaruto Archipelago area in Mozambique (Findlay et al., 2011).



Area Size

16,280 km²

Qualifying Species and Criteria

Dugong

Dugong dugon

Criterion A; B2

Other Marine Mammal Species Documented

Balaenoptera acutorostrata, *Delphinus delphis*,
Feresa attenuata, *Lagenodelphis hosei*, *Megaptera
novaeangliae*, *Orcinus orca*, *Pseudorca crassidens*,
Sousa plumbea, *Stenella attenuata*, *Stenella
longirostris*, *Tursiops aduncus*

Summary

There has been a dramatic decline in dugongs in the Western Indian Ocean since the 1960s. Ten and 6 dugongs were counted off Kenya in the mid 1990s. Similar declines were noted for Tanzania, the Mascarene Islands and Mozambique. Bazaruto Archipelago and Inhambane Bay are on the East coast of Central Mozambique from the Save River in the north to Tofino in the south. Both bays have extensive shallow waters, with large tidal ranges and extensive seagrass beds. Boat, aerial and questionnaire surveys conducted from 1991/97 suggested that the Bazaruto Archipelago supports the last viable Western Indian Ocean dugong population. Comprehensive aerial surveys of the Archipelago in 2007/2008 estimated a population of between 250 and 350 individuals. Recent aerial, acoustic and questionnaire surveys off East African 'hot spots' suggest that dugongs are all but extirpated from the East African region, other than in the Bazaruto Archipelago. The IMMA also supports endangered Indian Ocean humpback dolphins and other species of cetacean.

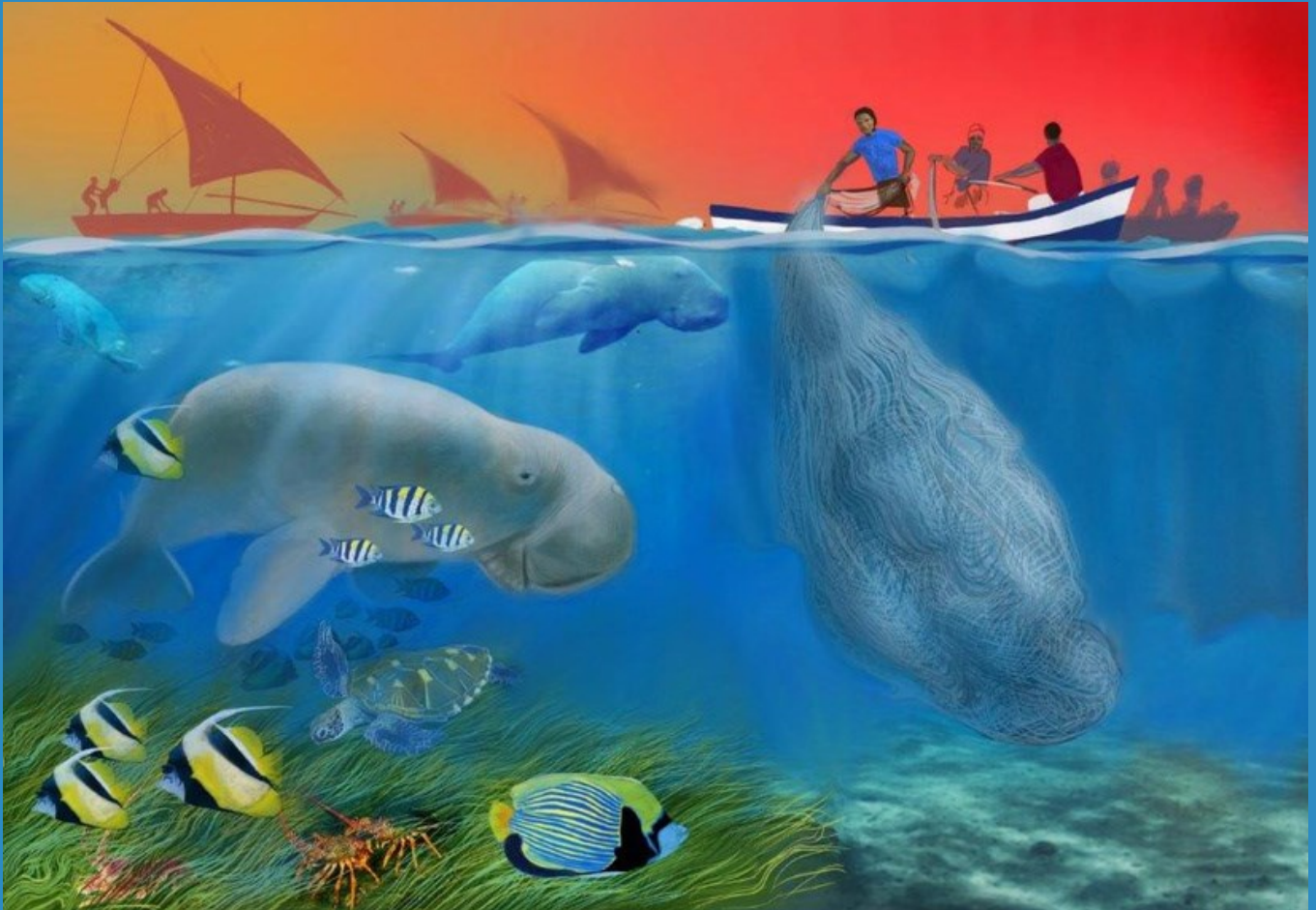


Figure 1 - Artwork showing the dugong and its habitat in the Bazaruto Archipelago and Inhambane Bay IMMA. Credit: Murray Ralfe

Criterion B: Distribution and Abundance

Sub-criterion B2: Small and Resident Populations

Both the Bazaruto and Inhambane bays have extensive seagrass beds, and Inhambane Bay was known in the past to host substantial numbers of dugongs, though few, if any, remain. The Bazaruto dugong population, estimated at between 250 and 350 individuals, is the only known fairly large dugong population within the Western Indian Ocean. Population viability modelling suggests this population is viable, given zero mortality through anthropogenic causes, particularly incidental catch and disturbance through oil and gas exploration (Cockcroft et al., 2010). A management plan and conservation strategy for dugongs in the Bazaruto Archipelago has been formulated and submitted to the relevant authority (Cockcroft et al., 2018). In addition, Cockcroft et al., (2018) have proposed that Mozambique's dugongs be regarded as an IUCN special management unit and classed as critically endangered. Consequently, this is believed to be the last and only viable dugong population left off East Africa (Cockcroft, et al., 2018).

Supporting Information

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<http://www.dugongconservation.org/project/developing-education-awareness-campaign-conserve-dugongs-bazaruto-archipelago-mozambique-mz3/>

<http://www.dugongconservation.org/project/distribution-dugongs-coastal-waters-mozambique-mz2/>

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