

The WIO has a diverse marine mammal population and several species are found in or migrate through MPAs. Few of the existing MPAs undertake specific management of marine mammals, apart from the dugong, but dolphins and whales are increasingly becoming tourist attractions, and in some cases are providing important revenue for the MPA. This sheet outlines some of the management issues that need to be considered for these species.

About 34 species of marine mammals (whales, dolphins and the dugong) inhabit the WIO. Several species are on the IUCN Red List, often listed as 'Data Deficient' (see sheet H1) because there is insufficient information to determine the risk of extinction. The main threats to marine mammals are fishing-net entanglement, chemical pollution and noise pollution.

Dugong

These were once common in many WIO countries. Although they are listed globally as 'Vulnerable', their status in the WIO is almost certainly 'Endangered' and they are probably one of, if not the most, threatened large mammal in Africa. Dugongs are particularly at risk from fishing, as their meat is highly valued, and from loss of seagrass beds, their main feeding habitat. Several remaining key locations are the focus of projects either to strengthen MPAs (Kiunga Marine Reserve in Kenya, Mafia Marine Park in Tanzania, Bazaruto National Park in Mozambique, Moheli Marine Park in Comores and Aldabra World Heritage Site in Seychelles), or to create new ones (e.g. Mnazi Bay-Ruvuma Estuary Marine Park in Tanzania).



J. Rubens

Dugong drowned in gill-net off Rufiji Delta near the Mafia Island Marine Park, Tanzania (2004).

DOLPHINS

Dolphins are often fished for bait for shark fishing and for their meat, but there is little information on their status. Dolphin watching is a popular tourist attraction, for example in some MPAs, including Zanzibar (Menai Bay), Kenya (Watamu and Shimoni) and South Africa.

KEY POINTS FOR THE MPA

- ❑ Keep records of sightings of all marine mammals. They can be counted on timed boat or aerial surveys over defined areas (appropriate survey times do not always coincide with favourable weather periods). Document specific behaviours, such as breaching, and tail flapping, and where possible identify individuals through colour, scars on the skin, and shape of flukes. Obtain appropriate field guides and ensure that MPA personnel are trained in identification.
- ❑ Strandings - A live stranded whale should be kept wet with sea water, and gently pushed back into deeper water, avoiding pulling or pushing on the flippers as these can easily be damaged. A large team of people will be needed, so call on visitors, local communities and other willing supporters.
- ❑ Whale and dolphin watching - New research is showing that marine mammals suffer high levels of stress when being watched by tourists. It is therefore vitally important that whale and dolphin watching is carefully managed. Obtain and/or develop codes of conduct and adhere to these. For example, when in a boat near whales and dolphins: maintain a full-time lookout person; never approach head-on or from behind; allow the animal to approach the boat rather than vice versa; keep engines running and do not approach animals under sail alone; maintain no-wake speed of 2 knots (no sudden changes in speed or direction); only reverse in emergency; maintain a parallel course with the animals; do not cut them off from open water; show extreme caution within 300-400m of the animal and never approach within 50m (100m is a good distance for viewing feeding, but further away if animals are socialising); do not go between a calf and adults. Involve local communities/fishers/boat operators in whale watching programmes.
- ❑ Where marine mammals occur within or adjacent to an MPA, ensure that information is made available to visitors, local communities and key government officials about the status of, threats and biology of the particular marine mammals. Obtain information on relevant marine mammal conservation programmes elsewhere and partner up with relevant agencies.
- ❑ Dugong - Raise awareness amongst local communities about the status of and threats to dugongs. Encourage fishers to report live or dead dugongs caught in nets and to use alternative gears where these exist. Avoid using an incentive system if possible as this may encourage the capture of healthy dugongs and is likely to be difficult to maintain.

WHALES

These are seen in the WIO particularly when they are on migration. Humpback whales are regularly sighted between July and November as they migrate south through the Mozambique Channel and along the east coast of Madagascar, to their Antarctic feeding grounds. They are also seen on their return once the southern winter sets in. Sperm whales are seen in Seychelles in July-September, and are sometimes stranded on the northern Kenyan Coast. Whale populations were originally reduced drastically through whaling. This has now ceased in the WIO, as a large part (to 40 degrees South) is included within the Indian Ocean Whale Sanctuary which protects whales from exploitation. Carcasses of whales that die at sea are occasionally washed up on beaches, and sometimes groups or individual whales appear to beach themselves deliberately. Whale-watching is a commercially important activity in many countries, including in some MPAs.

CASE STUDY

Protection of the dugong in Bazaruto Archipelago National Park, Mozambique

The dugongs in the Bazaruto Archipelago are probably the last viable population on the East African coast but may only number about 100 individuals. The population is monitored through regular aerial surveys carried out by a joint team of researchers from Natural History Museum in Maputo and Texas A&M University Institute of Marine Life Sciences, and appears to be fairly stable. The National Park plays a major role in their protection as well as protecting seagrass bed and other key habitats, guided by the management plan, which is updated every five years.

The main threats are incidental capture by gillnets set by local fishers and an illegal commercial shark fishery. Gillnets are banned within the National Park, but are still used illegally because of the difficulty in patrolling the large area (1,400 sq km). Incidental capture is being addressed by awareness-raising through the local fishers' associations, and the fish landing sites on the islands and mainland are patrolled to check for dugong carcasses and meat. If meat is found, it is confiscated and destroyed, and dead specimens are collected for the Museum. Those responsible are fined and may go to court for additional legal measures as appropriate. There are plans to implement a gear exchange programme to replace gill-nets with others, and to train some of the fishers in other professional skills, to reduce their dependence on fishing. The rapid development of tourism in the area provides one livelihood opportunity.

Tackling the shark fishery is more difficult as this involves illegal Chinese boats. The establishment of a small navy base in the area and the provision of two powerful motorised boats to the Park have helped. The Park also provides education and awareness programmes about the need for dugong conservation to tourist operators and local communities.

Sources of further information

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The following sites have information on strandings, responsible whale watching and other marine mammal conservation issues:

Great Barrier Reef Marine Park publications on marine mammals: www.gbrmpa.gov.au/corp_site/key_issues/tourism/whale_dolphin_watching.html

Indian and South Atlantic Consortium on Humpback Whales (ISACH): <http://www.isach.org>

International Fund for Animal Welfare: <http://www.ifaw.org>

International Whaling Commission (IWC): <http://www.doc.govt.nz/Conservation/Marine-and-Coastal/International-Whaling-Commission/index.asp>

IUCN/SSC Cetacean Specialist Group and IUCN/SSC Sirenia Specialist Group website <http://www.iucn.org/themes/ssc>: To subscribe to the Sirenian mailing list, email: SIRENIAN@listserv.tamu.edu.

Ocean Blue Foundation: Developing an International Whale Watching Charter: www.responsiblewhalewatching.org

Whale and Dolphin Conservation Society: <http://www.wdcs.org>