

Many MPAs in the WIO protect important populations of both seabirds and shorebirds, but their management is often overlooked. Birdwatchers frequently visit MPAs and they may become regular visitors and be willing to help with monitoring. This sheet provides some background information on birds relevant to MPA management, as well as guidance to best practices.

SEABIRDS

There are nearly 200 species of true seabirds (i.e. species that spend a large part of their lives at sea). The main groups of seabirds are albatrosses, petrels, shearwaters, tropic birds, boobies, frigate birds, gulls and terns, all of which often breed in large colonies on small islands. A total of 23 species of seabird breed on the WIO islands, and an additional number (such as jackass penguins and cormorants) are known also from the mainland coast of eastern and south-eastern Africa.

SHOREBIRDS

A second group of birds that are important in MPAs are coastal resident or migratory waterbirds and waders. These species include herons, egrets, storks, ibises, spoonbills, flamingos, plovers and the larger waders. They tend to congregate in estuaries, creeks, salt pans, mangroves and beaches, particularly along the mainland coast as these provide good feeding grounds. Some species use these areas as wintering grounds; for others, they are essential stopovers on journeys from the northern tundra to the southern Cape, but there is very little information on their migratory patterns.

THREATS

The main threat to both resident and migrant birds in the WIO is habitat degradation. Other threats are disturbance

by fishers and tourists, egg collecting, and predators such as rats, cats, dogs and potentially oil spills. Few species are globally threatened (i.e. on the IUCN Red List, see sheet H1) because most coastal waders and seabirds have very wide distributions. The Roseate tern however is of particular concern in the WIO as populations have undergone major declines.

Some of the large nesting seabird colonies and key roosting and feeding sites for coastal migrants lie within MPAs. For example, the Seychelles has a particularly large number of important breeding sites which are now protected e.g. Aldabra, Cousin Island, and Aride. Another mechanism for the protection of bird populations is through the designation of Ramsar sites under the Convention on Wetlands (Ramsar). For designation, a site must meet one of two criteria of importance to waterbirds: Criterion 5 for sites that regularly support at least 20,000 waterbirds; and Criterion 6 for sites that regularly support 1% or more of a waterbird species' biogeographic population.

Many of the key sites for bird species are now recognised internationally as Important Bird Areas (IBAs), under a scheme initiated by BirdLife International, and several of these are included either within or overlap with MPAs. The following occur in the WIO:

Country	Important Bird Areas
Comores	None
French Territories	Baie de Boueni (Mayotte), Ile du Lys (Glorieuses Archipelago), Juan de Nova, Tromelin, Europa, (none on La Réunion).
Kenya	Kiunga, Tana River Delta, Sabaki River Mouth, Mida Creek/Whale Island/Malindi-Watamu area, Kisite Island and Diani.
Madagascar	ca. 20 IBAs around the coast, with the majority on the west. The following IBAs are also protected areas: Nosy Be and satellite islands, Cape Sainte Marie Special Reserve, Mananara-Nord National Park and Masoala National Park.
Mauritius	Rodrigues Islets, Cargados Carajos Shoals, Round Island and Serpent Island.
Mozambique	Maputo Reserve, Bazaruto, Pomene, Zambezi Delta, Moebase Region.
Seychelles	Aride Island, Cousin Island, Bird Island, Cousine Island, Fregate Island, African Banks, Etoile Island, Boudeuse Island, Marie-Louise Island, Desnoeufs Island, Islets of Farquhar Atoll, Cosmoledo Atoll and Aldabra Atoll.
South Africa (north-east coast only)	Kosi Bay system, Richards Bay Game Reserve.
Tanzania	Tanga North, Tanga South, Dar es Salaam Coast, Rufiji Delta, Mafia Island, Mnazi Bay, Pemba Island, Zanzibar South Coast, Zanzibar East Coast, Latham Island.

KEY POINTS FOR THE MPA

- ❑ Determine if the MPA has important bird populations and is an IBA; if so, ensure management plans and MPA operations address their protection.
- ❑ Establish a monitoring programme, documenting: populations of the most important birds; when and which part of the MPA is being used; specific short, medium and long term threats. For seabirds (see case study), priorities are annual censuses (to determine long-term trends) and monitoring of breeding performance (survival of eggs and chicks, chick growth and fledgling size), diets and feeding rates.
- ❑ Protect nesting, roosting and if possible feeding sites, noting that breeding seasons of many sea birds do not follow a 12-month cycle. The most important feeding zones may be difficult to determine if outside the MPA. Littoral feeders follow tidal cycles coming into conflict with people on an irregular basis. During the highest tides critically important roosts will contain the bulk of the population and, if roosting occurs during daylight, these birds are at risk from disturbance and predation.
- ❑ If introduced species are a threat, seek expert advice.
- ❑ Establish viewing hides or platforms to reduce general disturbance. An MPA should be able to welcome both casual birdwatchers and the real enthusiasts. Careful thought is needed in the siting of hides. The best places for the viewer are at roosts but these change with seasons and tide levels.
- ❑ Since nesting areas and other key sites are easily disturbed, people should be directed away from sensitive areas using trails; if essential, erect screens/fences to keep people out of sight of birds.
- ❑ For terrestrial coastal birds, allow (or encourage) appropriate natural vegetation to develop and ensure that no alien species are introduced.

Sources of further information

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Convention on Wetlands: www.ramsar.org

CASE STUDY

Seabird monitoring in the Seychelles

The Seychelles are internationally recognised as a key area for seabirds both in terms of sheer numbers and diversity with 18 species breeding in the islands, and many globally important colonies occurring in protected areas, notably Aldabra, Aride and Cousin Special Reserves. In some MPAs, seabirds form the focus of ecotourism activities, but also suffer from poaching. For such visible birds surprisingly little is known about population sizes, breeding success and longevity.

Methods to monitor seabird populations and to increase information about them have been developed by the national NGO Nature Seychelles, with funding from the Dutch government. The methods were tested in Cousin Island Special Reserve and other MPAs, and discussed in a number of workshops involving experts and practitioners working on seabird protection and management in the Seychelles. As a result, a Seabird Monitoring Handbook for Seychelles has been published, detailing practical methods for monitoring seabirds by personnel such as Wardens and Rangers, and describing the national seabird database.

Workshops have been held with the owners and managers of important seabird sites in Seychelles, including several MPAs, to encourage them to start using the methods. A Seychelles Seabird Group (SSG) was also set up to facilitate management of seabird populations by setting priorities, providing training, coordinating monitoring activities and using the information to direct future research and/or management. The SSG publishes a newsletter twice a year, and is developing a strategy that promotes long-term monitoring in order to detect slow changes in numbers of long-lived species.

Coordination of the SSG is funded by Nature Seychelles, with support from Airtel Telecom and the Seychelles Environment Trust Fund, whilst individual islands and MPAs cover their own expenses. After two years of use, the Seabird Handbook needed to be updated and a new version was published in 2003 with funding from WIOMSA and the US government.



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Pink-backed pelicans (*Pelicanus rufescens*) and Long-tailed cormorants (*Phalacrocorax africanus*) roosting on rocks in the Ilhas da Inhaca e dos Portugueses Faunal Reserve.