

# Bowling Green Bay—a wetland of international importance

Bowling Green Bay, located south of Townsville in north-eastern Queensland, is home to an amazing array of coastal wetlands. The diversity and extent of wetlands found there and the wildlife they support has led to large parts of the bay being listed as a Ramsar site—a wetland of international importance—under the Ramsar Convention.

The Bowling Green Bay Ramsar site covers more than 35,000 hectares and includes Cape Bowling Green, parts of Cape Cleveland and the south-eastern portion of Cleveland Bay. Most of the site is protected by the Bowling Green Bay National Park and Bowling Green Bay Conservation Park. Bowling Green Bay and Cleveland Bay are also protected as Fish Habitat Areas and Dugong Protection Areas. This is because they are critical nursery grounds for fish and crustacean species, as well as significant habitat for the vulnerable dugong.



Wetlands in Bowling Green Bay include seagrass meadows, mangrove and saltmarsh communities, as well as brackish and freshwater swamps. The site is internationally important in the migration of marine turtles, shorebirds and terns. It is also nationally and internationally important for several threatened species, including marine turtles, dugongs, inshore dolphins and waterbirds.

Bowling Green Bay provides vital habitat for a range of species, with some of the largest colonies of fish-feeding birds in eastern Queensland occurring there.

Fresh and salt water interact in Bowling Green Bay. Tidal waters push inland to form estuarine deltas.

During flood conditions, freshwater from the nearby Burdekin and Haughton rivers flow into the bay, reducing the salinity of the water. The site's multitude of habitats fit together in a complex, constantly changing mosaic influenced by these water flows. Some plants that usually thrive in very different levels of salinity grow side by side here.

Rains from summer storms add fresh water but the rainfall is variable due to seasonal tropical cyclone and monsoon activity. Groundwater from two main aquifers is a significant source of water for the site.

The Traditional Owners of the Bowling Green Bay area are the Bindal and Wulgurukaba Aboriginal people. This resource-rich land and sea country supported them for many thousands of years, and today the Bindal and Wulgurukaba people retain a close connection to their land.

## What is a Ramsar site?

The Convention on Wetlands of International Importance especially as Waterfowl Habitat (more commonly referred to as the Ramsar Convention) was adopted in 1971 in the Iranian city of Ramsar. The convention aims to halt the worldwide loss of wetlands and to conserve remaining wetlands through wise use and management. The Ramsar Convention encourages the designation of sites containing representative, rare or unique wetlands, or wetlands that are important for conserving biological diversity. Queensland has five Ramsar sites—Currawinya Lakes, Shoalwater and Corio Bays, Great Sandy Strait, Moreton Bay and Bowling Green Bay. Bowling Green Bay and Moreton Bay were listed as Ramsar sites on 22 October 1993.

## Ecological character

As a Ramsar Convention signatory, Australia is expected to describe and maintain the ecological character of each of its current 65 Ramsar sites. An ecological character description (ECD) is a rigorously prepared assessment of the ecosystem components, processes and benefits/services of a site. The ECD is the benchmark against which any changes at the site are assessed for significance.

## Why is Bowling Green Bay special?

Bowling Green Bay is a Ramsar site because of the diversity and extent of wetland types included within it and the wildlife it supports.

Mangroves stretch across a large area of the site. These mangrove forests are vital to the region's coastline, particularly during cyclone activity, because they help control coastal erosion and protect the land from strong winds, tidal surges and heavy rainfall. Seagrass meadows are also important to the site. These occur in the intertidal and subtidal areas of Bowling Green and Cleveland bays. They provide food for animals, including dugongs, marine turtles and dolphins. Seagrass meadows also help absorb nutrients and sediments, stabilise the estuarine banks, provide protection from wave impacts and accumulate high levels of carbon.



The Bowling Green Bay Ramsar site supports a very large and mostly intact mosaic of coastal wetlands including estuarine, marine and freshwater habitats. Photo: EHP

The site supports threatened species such as green, loggerhead, hawksbill and flatback turtles, dugongs, estuarine crocodiles and Indo-Pacific humpback dolphins. Thousands of brolgas and magpie geese live in the area. Many species depend on the site at critical stages of their life cycles. Bowling Green Bay is a haven for its diverse and abundant fish and crustacean populations.

Potential threats to Bowling Green Bay are as complex as its mosaic of habitats. The bay's connections with catchments beyond the boundaries of the Ramsar site make it vulnerable to agricultural, urban and industrial development in the region. Other threats include fire, recreational activities, pollution, water usage and changes to water flow, pest plants and animals and climate change.

### Bowling Green Bay's birds

Bowling Green Bay supports rich and abundant birdlife, including seasonally more than 20,000 waterbirds in, and adjacent to, the site. At least 224 species of birds have been recorded at the site, with almost half of

them breeding there. Many migratory birds rest and feed here during their annual migration, including large numbers of red-necked stilts. Bowling Green Bay is also an important feeding ground for Brolgas and Magpie Geese, which gather in large numbers and feed on bulkuru sedge at the site and in adjacent areas. More than half the migratory bird species listed in the Japan-Australia Migratory Bird Agreement (JAMBA) and China-Australia Migratory Bird Agreement (CAMBA) visit the wetlands of Bowling Green Bay.



A large population of brolgas can be found in and near the Ramsar site. Photo: EHP

## Enjoying Bowling Green Bay

Bowling Green Bay National Park provides a range of nature-based activities for visitors to enjoy such as camping, bushwalking and wildlife viewing. The national park covers approximately 57,900 hectares of coastal and mountainous country with Mount Elliot (1210 metres) rising out of the surrounding coastal plain and dominating the landscape. Alligator Creek offers a number of popular tracks for bushwalking. Boating and fishing is also popular in the marine waters and is permitted with some restrictions.

The Queensland Wetlands Program supports projects and activities that result in long-term benefits to the sustainable management, wise use and protection of wetlands in Queensland. The tools developed by the Program help wetlands landholders, managers and decision makers in government and industry. The Program is a joint initiative of the Australian and Queensland governments.

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