

ROEBUCK BAY: INTERNATIONAL MARINE WONDERLAND

Roebuck Bay is the heart of *Yawuru nagulagun buru*, Yawuru sea country, the coastal region where Yawuru people have lived and hunted for thousands of years, and the centre of life and activity for the township of Broome.

“Roebuck Bay means many things to many people – to some it’s an ancestral home to which they have continuing responsibilities and a place to hunt, fish and collect shellfish; to others its importance lies in its status as one of the most important migratory shorebird sites in Australia. For many people it is simply a place to relax and unwind; for others it’s a place from which to earn a living...”

Neil McKenzie Yawuru Traditional Owner.

Like all Yawuru country *Nagulagun* comes from *Bugarigarra* (the Dreaming) and includes all that lives in the sea: the fishes, turtles, Dugongs, the habitats they live in: the seabed, the reefs, the sandbar, the mangroves, and the seagrass beds. The current, the tides and whirlpools of saltwater country are all part of *Nagulagun*.



CONSERVATION SIGNIFICANCE

- Roebuck Bay is a wetland of international significance and was declared a Ramsar site in 1990.
- It was listed on the National Heritage Register in 2011.
- The intertidal mudflats are listed as a Vulnerable (Category B) Threatened Ecological Community (TEC) by the State.
- The Bay is the site of a proposed Marine Park.
- The Ramsar and Intertidal areas are conservation estate managed by Yawuru and DEC.



Roebuck Bay covers an area of 550km², stretching from Broome to Sandy Point. The tidal range is 0–10.5m, and 160km² of mud flats are exposed on low spring tides. These intertidal mudflats support an exceptionally high variety of benthic invertebrates (worms, shellfish and other creatures), which are essential foods for birds, fish and marine animals.

The Bay and mudflats are an internationally important site for at least 29 species of migratory waders and shorebirds; approximately 300,000 birds fly in each year to rest, feed and recuperate before returning to China’s Yellow Sea and on to Siberia, where they breed. The loss and destruction of habitat for these birds across the world increases the importance of Roebuck Bay.

Main roosting and feeding sites include the northern beaches, Bush Point, low-lying coastal Roebuck Plains grasslands and Lake Eda.

The mangrove thickets lining the eastern side of the Bay are dissected by muddy creeks flowing from Roebuck Plains and provide an ideal home, nursery, feeding and breeding area for many marine creatures and shorebirds.



Whales and other marine life traditionally co-exist with fishers but approaching too close can threaten the balance. A startled or threatened whale can put you and your crew at risk. (See information included in this pack for advice on safe distance and angles of approach to whales.)

Roebuck Bay is a major nursery for marine fish and crustaceans. Dugongs and turtles feed on the extensive seagrass meadows, while dolphins and Humpback Whales use the Bay to feed, socialize or rest. The Bay supports the largest known population of rare Australian Snubfin Dolphins. Identified as a new species in 2005, they are Australia's only endemic dolphin. Scientists wanting to learn more about them have photographed and catalogued 161 individual dolphins in Roebuck Bay, out of an estimated Australia-wide population of 1000.

THREATS TO ROEBUCK BAY



Lyngbya majuscula is a toxic blue-green alga that has been appearing in large blooms in Roebuck Bay since 2005. Lyngbya growth is promoted by increases in nutrient levels from sediments and pollutants. The algal blooms smother seagrass and hamper its growth, reducing food for turtle, Dugong and fish.

Lyngbya is toxic to many marine animals, birds and humans.

As it decays, Lyngbya reduces dissolved oxygen in the sea and increases nutrient levels, often feeding more Lyngbya blooms. Lyngbya outbreaks have a bad effect on fishing, as fish avoid affected areas or die.

It is important that the Broome Community reduces the amount of sediments, nutrients and pollutants washing into the Bay. When fishing, make sure you don't leave any rubbish in the Bay.

www.roebuckbay.org.au/keep-our-bay-clean-project/



Seagrass monitoring officer Fiona Bishop examines a Lyngbya bloom in Roebuck Bay

Roebuck Bay is under pressure from many uses and activities, including: residential expansion with resulting urban runoff, tourism, pearling, industrial and recreational boating, agricultural and industrial developments, commercial and recreational fishing. Together, these are harmful to marine life.

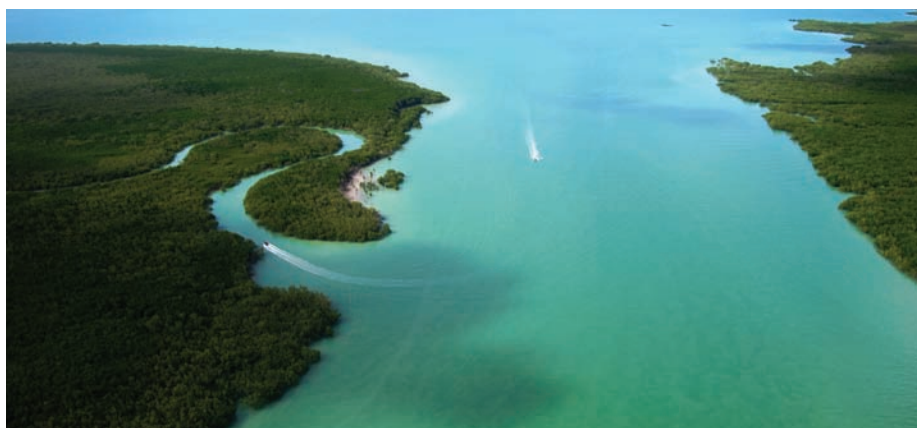
“No longer is there the abundance of fish, or shellfish that we used to harvest daily from the foreshore. Cockles are no longer present in the Bay. The seagrass beds are diminishing and it is much harder to catch salmon from the foreshore.”

Planning for the future: Yawuru Cultural Management Plan, 2011.

Locals have noticed a decline in Threadfin Salmon, Barramundi, Mangrove Jack and Mud Crab in the Bay, as well as Dugong. Increased population and access means that human activities are having an impact, and now more than ever sustainable fishing practices are needed. It's got to the point where some locals now refer to Crab Creek as No Crab Creek!

Wet season rainwater that once soaked back into the earth is now flushed from streets and roofs and drained into the Bay, along with a cocktail of fertilizer, pesticides, fuel, oil, dog poo, silt and rubbish, polluting the salt marsh, the mangrove and creek systems, the Bay and all its marine life. Pollutants may also come from boats and larger vessels, and can cause many problems, including Lyngbya blooms (see box left), jellyfish blooms and floating sickness in our endangered marine turtle populations.

With so many emerging threats it is crucial that we set the right example and fish in the Bay with care, to ensure healthy habitats and fish stocks for our fishing future.



A turtle with floating sickness will eventually starve to death as it cannot dive to feed. If you find a sick turtle, contact and take to Chelonia Wildlife Rehabilitation and Release. 0407945660, www.chelonia.org.au



Blooms of the Sea Tomato Jellyfish *Crambione mastigophora* recorded in Roebuck Bay in 2012 are attributed to overfishing, coastal construction, pollution and climate change.

Worryingly, Sea Tomatoes are thought to eat fish eggs, larvae and larval fish food.