



# Sea Turtles in the Townsville Region

## Conservation through community understanding and involvement

Sea turtles have survived in our oceans for over 100 years. Their unique life cycle, body shape, strength and tenacity have enabled them to survive and carve out a special niche while many other animals have become extinct.

In the past, great numbers of sea turtles flourished in oceans around the world, but today the story is different. Currently, nearly all populations are threatened and their numbers have diminished, representing just a small fraction of what they once were. Because of human activities, sea turtles are

struggling to survive in the seas and oceans around the world.

The Townsville coast is home to six or seven of the species of sea turtle found on our planet. These are the green (chelonian mydas), flatback (Natatory depressus), loggerhead (Caretta caretta), hawksbill (Eretmochelys imbricata), Olive ridley (Lepidochelys coriacea), Turtles. Unfortunately, all these species are classified as vulnerable or endangered (susceptible to extinction), right in our own backyard!

## Why is the Townsville Region Important for turtles?

On a global scale, the Queensland coast is home to some of the most important nesting and feeding sites for several species of sea turtle. The beaches around Townsville (including magnetic isled), while not defined as major nesting sites, are regularly used by nesting fatback and green turtles. Fatback turtles have been observed nesting on the beaches of the new Strand development, and given the opportunity, may do so again in the future.

Halifax, Cleveland and Bowling Green Bays are all important feeding sites where green turtles graze on the sea grass beds and fatback and loggerhead turtles forage for their invertebrate food supply. Hawksbills are found on the inshore reefs and the olive riley can be found in the deeper waters around Magnetic Island and along the coast. Leatherbacks are rarely sighted off Townsville, and then only in deeper waters. Collectively, these areas form a very important part of Queensland's sea turtle habitat.

*Photo courtesy of QPWS*



*Green Turtle nesting on a local beach*

Sea turtles exhibit a strong homing behavior to return to nest on beaches where they themselves hatched from eggs. A female turtle hatched in the Townsville region is highly likely to return to breed here again in 30 to 50 years when she matures. Consequently, it is important to protect coastal areas in northern Queensland so sea turtle habitat can be maintained.

# Threats to Sea Turtles in Townsville

Sea turtles grow very slowly and may live to be over a hundred years old. During this time they will face many natural and human-related threats. If these threats are allowed to continue at their present rates, we could see the extinction of some sea turtle species within our own lifetime.

The sea turtles that feed and nest in the Townsville region are exposed to a number of dangers that threaten their continued survival.

## Some threats include:

### **Loss of feeding and nesting habitats**

Coastal development has degraded many sites with rock break walls causing the loss of precious sandy beaches where sea turtles nest. Artificial lights near the shore can disorientate nesting adult females and hatchlings. This results in decreased nesting by adults and increased mortality of the hatchlings because critical sea finding behavior has been disrupted. In addition, fishing and other activities such as trawling, dredging shipping channels, construction of canal housing estates and bad anchoring practices can degrade inshore feeding habitats used by sea turtles. Sea grass beds, vitally important to green turtles (and other animals like dugong), have been seriously damaged by trawling and coastal land use practices.

*Photo courtesy of QPWS*



*Erosion washing away a turtle nest*

### **Boat strikes**

Boats may hit turtles when they come to the surface to breathe or bask, or whilst in shallow sea grass or coral reef areas when feeding or mating. Boat strikes are a common cause of injury and mortality among sea turtles. Townsville's Cleveland Bay has one of the highest rates of boat strike in Queensland.

*Photo courtesy of QPWS*



*Green Turtle killed by a collision with a boat*

### **Pollution**

In its many forms, pollution is a constant threat to the survival of sea turtles. The sea turtles that mistake floating rubbish for food often ingest marine debris, such as plastic bags or discarded fishing line. This is known to cause mortality among sea turtles either by gradually choking the turtle or blocking the gut so they can't feed. Sea turtles can become entangled in discarded fishing nets, often called 'ghost nets'. In addition, pollution resulting from industrial waste and coastal agricultural practices appears to have a negative impact on sea turtle habitat. Runoff containing high levels of nutrients such as phosphorus, nitrogen and potassium can wash into adjacent marine waters, creating algal blooms, which damage sea grass beds.

*Photo courtesy of Vance Wallin*



*Turtle head in ghost net*

### **Traditional and subsistence Hunting**

Historically, Aboriginal and Torres Strait Islanders have hunted sea turtles and collected their eggs. The hunting, particularly for green sea turtles, is culturally and economically important to these people.

The harvesting levels, particularly of adult female sea turtles, are poorly understood and may be unsustainable within Australia and in neighboring countries. Because of this, the impact on sea turtle populations is difficult to assess. It is important to understand the impact hunting has on sea turtle populations so we can maintain sustainable levels of these species for future generations.

*Photo courtesy of Mark Read*



*A dumped carapace and plastron from a harvested green turtle.*

### **Disease**

Many green turtles in southern Queensland and some along the Townsville coast have contracted a potentially deadly virus called Green Turtle Fibropapilloma disease. This disease may be linked to poor water quality, which can be traced back to coastal development and other land use practices.

*Photo courtesy of Mark Read*



*Fibropapillomatosis, caused by a virus, is believed to be associated with poor water quality*

*Photo courtesy of QPWS*



*Depredated sea turtle nest with scattered shells*

### **Feral animal predation**

Foxes, feral pigs and wild dogs have been serious predators of sea turtle nests for many decades. Feral animals have dug up some turtle nests along Pallarenda beach and Bowling Green Bay and the problem may be widespread in the Townsville region.

*Photo courtesy of Mark Read*



*An adult green turtle with strands of monofilament fishing line trailing from the mouth.*

### **Commercial and recreational fishing activities**

Fishing activities represent another ever-present threat to sea turtle populations. Sea turtles often drown after becoming entangled in "live" or even old discarded pieces of fishing net or lines. Even with changes to legislation, which now requires commercial fishery trawling gear to include Turtle Excluder Devices (TED's), sea turtles may still be accidentally caught in nets by this industry and it is yet to be established how successful the use of TED's has been. The Queensland Shark Control Program has also been associated with incidental catch and mortality of sea turtles.





The recent global decline of sea turtle populations is severe. Six species found worldwide are classified as 'endangered', with the seventh listed as 'critically endangered'. The time to act is **NOW!** The protection of sea turtles, both here and as they swim across international boundaries, is a national and international responsibility. How we respond to this crisis over the next half-century will determine the fate of sea turtles for eternity.

Australia, due in part to its isolation and relatively small human population, has been able to support some of the last globally significant breeding populations of four species of sea turtle - the green,






loggerhead, hawksbill and fatback. Unfortunately, our sea turtle populations are also in decline. Scientific research has shown a 50% decline of nesting loggerhead turtles in Queensland in the last thirty years. Significant declines are also evident in green and hawksbill turtles, indicating that they too are suffering losses to their populations. If this trend continues unchecked we may never again see these species nesting on the east coast of Australia. Here in north Queensland, we have the opportunity and responsibility to safeguard some of these globally important sea turtle populations.

## How you can help save our sea turtles

### Boaters and fishers can help by:

-  Slowing down over turtle feeding areas such as seagrass beds and over coral reefs.
-  Properly discarding fishing lines, plastic and old nets.
-  Being careful not to anchor on seagrass beds.
-  Reporting any sick or Dead Sea turtles to the QPWS Marine stranding hotline on 1300 360 898.

### The community can help by:

-  Not littering. Rubbish discarded on our streets or footpaths can eventually wash through storm water drains and into our seas.
-  Keeping outside lighting to a minimum (if you live by the beach) and helping to keep our beaches clean from rubbish.
-  Encouraging sustainable farming practices.
-  Not eating seafood that comes from unsustainable means.
-  Not harassing (i.e. touching or shining lights on) nesting, swimming or mating turtles, or emerging hatchlings

Ultimately, it is up to our state and commonwealth governments to ensure that our sea turtle populations are protected and to eliminate the larger issues which are threatening sea turtles with extinction. You can help too, by relaying your opinions to government representatives and by joining groups such as the **Indo-Pacific Sea Turtle Conservation Group (IPSTCG)**.

IPSTCG, which is partly funded by Coastcare, was established to raise awareness of sea turtles and to highlight threats to their populations. We invite all people who are interested in the conservation of our sea turtles to join IPSTCG, become **AWARE** and start making a difference for the future survival of sea turtles.

Help to ensure that these fascinating creatures are seen by the future generations.



Coastcare is a program of the Commonwealth Governments' National Heritage Trust in Partnership with State/Territory and Local Governments.

**For more information contact IPSTCG at  
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or Email to [ipstcg@beyond.net.au](mailto:ipstcg@beyond.net.au)**

The views expressed in this brochure are not necessarily those of Coastcare.