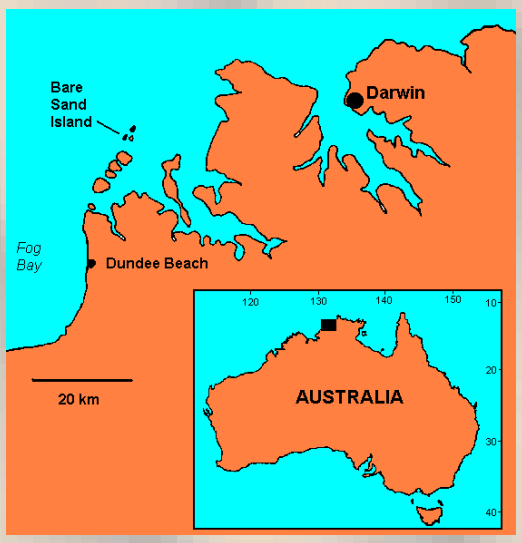
Bare Sand Island Sea Turtle Research Project

Each year between May and October Flatback sea turtles lay their eggs on the beaches of Bare Sand Island. A small number Olive Ridley turtles also come to nest on the island each year. Since 1989, researchers from Charles Darwin University have studied these turtles to increase our understanding of these reptiles and their threats to ensure their protection and conservation.

Researchers and volunteers gather data on the numbers of nesting turtles. They estimate population sizes and are recording changes in these numbers over time. This research has determined that Bare Sand Island and neighbouring Quail Island are important nesting sites for Flatback sea turtles.

Flatback sea turtles only occur in waters off Australia and South-east Asia but nest only on the beaches in tropical and subtropical Australia. Commonwealth law classifies them as vulnerable and protects them throughout their range.



Bare Sand Island is part of a chain of islands found 50 km west of Darwin, in the northern end of Fog Bay, NT.

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Hatchling Flatback Turtle

Flatback turtles have a low-domed carapace (shell) with upturned edges and a cream-yellow underbelly. Adults are 80 to 96 cm in length and weigh about 80 kg. Much remains unknown about Flatback turtles but they diet includes molluscs, squid, cuttlefish, soft corals, jellyfish and algae.

The Bare Sand Island Sea Turtle Research Project began in 1996. Since then over 600 nesting Fatback turtles have been recorded. Some turtles return every year to the island; others every several years to nest. Because of this, it takes years of continual research to survey the whole population.

Hints for watching nesting sea turtles

Bare Sand Island is a great place to see Flatback turtles during the nesting season between May and October. During the peak of the season, June - July, 10 to 20 turtles come ashore each night. The high tidal range on this island restricts turtle nesting to roughly 2 hours before and after high tide.

If you come across a nesting turtle, try not to disturb her so you can watch her lay her eggs. Lights and movement easily frighten turtles before they start laying their eggs. To minimise turtle disturbance please:

- Keep the use of lights to a minimum
- Stay behind the turtle
- Avoid sudden movements
- Wait until the turtle has started laying her eggs before turning on lights or using flash photography
- Keep dogs away from nesting turtles

Patrick Hamilton

Visitors to the island watch a nesting Flatback sea turtle lay her eggs.

Turtles in the water

The waters around Bare Sand Island support significant numbers of juvenile Green and Hawksbill turtles feeding on the reef. Both species are Vulnerable under Australian classification (*EPBC* Act 1999). Green turtles are internationally classified as endangered and Hawksbill turtles are critically endangered internationally (IUCN Red List).

From May to July each year, researchers and volunteers monitor Green and Hawksbill turtle populations by capturing turtles while they are feeding at high tide. Each turtle is identified with a titanium tag attached to each front flipper. The length of the carapace (shell) and the turtle's weight is recorded before it is released. Estimates of the population are provided by the proportion of tagged individuals captured. Changes in population size and obvious threats are recorded each year and help to develop conservation strategies.

Over 600 juvenile Green turtles and 400 Hawksbills have been tagged in the waters surrounding Bare Sand Island.

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Researchers and volunteers tagging juvenile turtles caught in the waters

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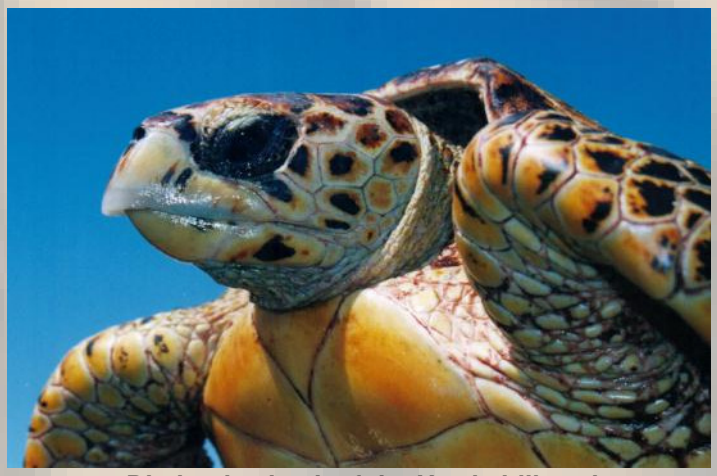
Juvenile Green turtle on the reef in Fog Bay



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Distinctive beak of the Hawksbill turtle

Join the sea turtle research

Everyone is welcome to join our research team and to help with sea turtle research and conservation activities.

AusTurtle Inc. is a non-profit community organisation that provides financial support to the Bare Sand Island Sea Turtle Research Project. Our annual research reports are posted on our website: www.austurtle.org.au. To join or for more information on AusTurtle Inc., visit our website at www.austurtle.org.au.

How you can help sea turtle conservation

- Avoid leaving rubbish on the beach and prevent plastics from washing into the sea. Turtles may ingest plastics that resemble food or may become entangled in fishing gear.
- Motor slowly in the shallow waters around Fog Bay and look out for marine turtles. This area has important habitat for feeding green and hawksbill turtles.
- If you find a tagged turtle, write down tag numbers; when, how and where the turtle was caught; what happened to the turtle; your name and address and send information to the return address on the back of the tag.
- Report sightings of all sick, injured turtles or dead turtles to the Dept. Natural Resources, Environment and the Arts.
- While on Bare Sand Island keep lights and campfires to a minimum. Ensure all campfires are extinguished by the end of the night and all coals are covered to prevent turtle hatchlings from being attracted into the fire.

This brochure was produced in 2006 using a grant from EnvironmeNT. For more information contact AusTurtle Inc. via email austurtle@austurtle.org.au or at PO Box 34u, Charles Darwin University, NT 0815, Australia

AusTurtle Inc.
SEA TURTLE RESEARCH AND CONSERVATION