

Threatened species of the Northern Territory

Green turtle

Chelonia mydas

Conservation status

Australia: Vulnerable

Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Near Threatened

Territory Parks and Wildlife Conservation Act 1976

Description

The Green Turtle is a marine turtle with a semicircular to heart-shaped carapace up to 1 metre long. The carapace is olive-green, usually variegated with black, brown or red-brown. There are four pairs of non-overlapping costal scutes (those between the centre and outer margin of the shell) on the carapace. Unlike the Hawksbill Turtle *Eretmochelys imbricata*, the Green Turtle has only one pair of prefrontal scales above and in front of the eyes.

Nesting Green Turtles move on land using both front flippers simultaneously, creating a symmetrical track in the sand. The only other marine turtle that regularly breeds in Australia and moves in this way is the Flatback Turtle *Natator depressus*. Eggs are intermediate in size (mean diameter of 4.6 cm) compared with those of other turtle species that breed in Australia.

Distribution

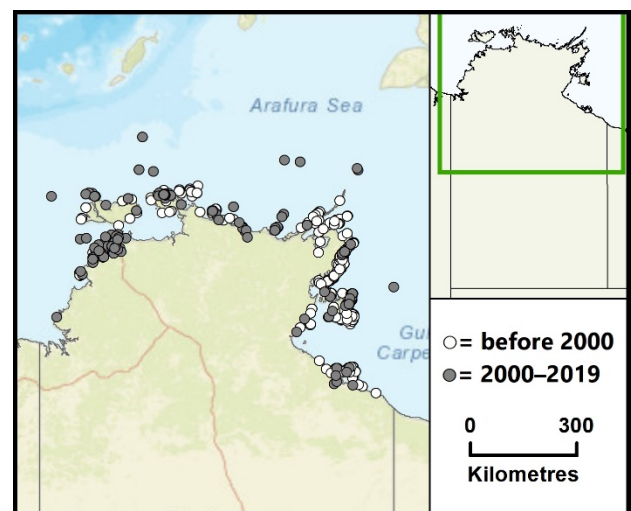
Green Turtles occur in tropical and subtropical waters throughout the world.



Caption: R. Somaweera

In Australia, the main breeding distribution includes the Great Barrier Reef, the northwest shelf of Western Australia, Wellesley Island group in the southern Gulf of Carpentaria and the Top End coast.

Many nesting sites occur in the Northern Territory (NT), mostly from the western end of Melville Island to near the border with Queensland.



Caption: Known localities of the Green Turtle in the NT (nrmmaps.nt.gov.au)

Nationally significant breeding sites in the NT include Cobourg Peninsula, the mainland from Gove to the northern edge of Blue Mud Bay, the southeast of Groote Eylandt, and the northern beaches of islands in the Sir Edward Pellew group¹.

NT conservation reserves where reported: Casuarina Coastal Reserve, Garig Gunak Barlu National Park and Nanydjaka Indigenous Protected Area.

Ecology and life-history

In the NT, Green Turtles nest mainly on wide beaches backed by large dune systems, and may occur at high densities in such sites¹. Individuals disperse widely from nesting beaches to feeding areas in coastal and oceanic waters. Green Turtles tagged in the Kimberley have been recaptured in the Top End, and individuals tagged at breeding sites in the northern Great Barrier Reef have been recaptured in the southern Gulf of Carpentaria. Individuals tagged in north-eastern Arnhem Land make complex and long movements around the western shores of the Gulf of Carpentaria².

Adult Green Turtles are primarily herbivorous, feeding mostly on seagrass and algae, while juveniles are carnivorous.

Threatening processes

As with other marine turtles, there is a broad range of factors that threaten the Green Turtle. These include by-catch in commercial fisheries³; Indigenous harvest; predation of eggs and young by domestic and feral Dogs *Canis familiaris*, feral Pigs *Sus scrofa* and monitors *Varanus* spp.; marine pollution, including entanglement in ghost nets; and disturbance at breeding sites.

Conservation objectives and management

A national recovery plan for this species, and other marine turtles, was implemented in 2017⁵. This plan included actions that: (i) aim to reduce mortality of turtles (principally through mitigating impacts of commercial fisheries, and maintaining

sustainable harvests by Indigenous communities), (ii) develop and integrate monitoring programs; (iii) manage factors that affect reproductive success (in this case, outside the NT); (iv) identify and protect critical habitat (including sea grass beds); (v) enhance communication of information; and (vi) enhance international actions and cooperation.

References

- ¹ Chatto, R., 1998. A preliminary overview of the locations of marine turtle nesting in the Northern Territory, in: Kennett, R., Webb, A., Duff, G., Guinea, M., Hill, G. (Eds.). Marine turtle conservation and management in northern Australia. Northern Territory University, Darwin, pp. 33–40.
- ² Kennett, R., Robinson, C.J., Kiessling, I., Yunupingu, D., Munungurritj, N., Yunupingu, D., 2004. Indigenous initiatives for co-management of Miyapunu/sea turtle. *Ecol. Manag. Restor.* 5, 159–166.
- ³ Poiner, I.R., Harris, A.N.M., 1996. Incidental capture, direct mortality and delayed mortality of sea turtles in Australia's Northern Prawn Fishery. *Mar. Biol.* 125, 813–825.
- ⁴ Chaloupka, M., Limpus, C., 2001. Trends in the abundance of sea turtles resident in southern Great Barrier Reef waters. *Biol. Conserv.* 102, 235–249.
- ⁵ Commonwealth of Australia, 2017. Recovery Plan for marine Turtles in Australia. Commonwealth of Australia, Canberra.