

Threatened species of the Northern Territory

Loggerhead turtle

Caretta caretta

Conservation status

Australia: Endangered

Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Vulnerable

Territory Parks and Wildlife Conservation Act 1976

Description

The Loggerhead Turtle is a marine turtle with a proportionally large head and a red-brown to brown carapace about 1 m long. It has five (rarely six) pairs of costal scutes. The carapace is longer than it is wide, whereas that of the Olive Ridley Turtle *Lepidochelys olivacea*, which has six or more pairs of costal scutes, is more circular.

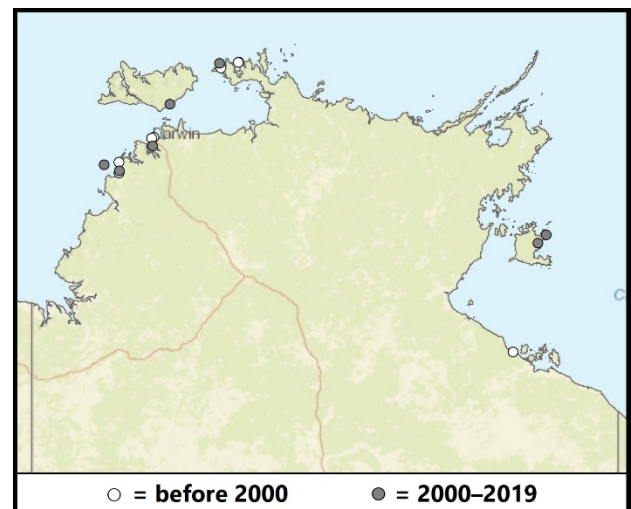
Like the Hawksbill Turtle *Eretmochelys imbricata* and Olive Ridley Turtle *Lepidochelys olivacea*, nesting Loggerhead Turtles move on land using one front flipper at a time, creating an asymmetrical track in the sand. Other species of marine turtle that nest in Australia create symmetrical tracks in the sand. Eggs are intermediate in size (mean diameter of 4.1 cm) compared with those of other turtle species that breed in Australia.



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Distribution

The Loggerhead Turtle has a global distribution in tropical and warm temperate marine waters. In Australia, the species breeds primarily in the southern Great Barrier Reef and adjacent mainland in Queensland and on Dirk Hartog Island (Shark Bay) and Muiron Island (North West Cape) in Western Australia. The eastern and western subpopulations are genetically distinct. Breeding has not been recorded in the Northern Territory (NT)¹.



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

Loggerhead Turtles that breed in Australia migrate to the Pacific Islands and southern Asia. Individuals that forage in NT waters appear to originate from both the eastern and western breeding subpopulations. The species is reportedly not uncommon in NT waters, at least from Fog Bay around to north-east Arnhem Land¹.

NT conservation reserves where reported: Garig Gunak Barlu National Park.

Ecology and life-history

Loggerhead Turtles forage in subtidal and intertidal coral and rocky reefs and seagrass meadows in inshore waters, as well as in deeper soft-bottomed habitats. They feed on shellfish, crabs, sea urchins and jellyfish.

Females migrate up to 2,600 km from feeding areas to traditional nesting beaches, where they lay up to six clutches of around 125 eggs each season with 3–4 years between breeding. After hatching, young turtles take drift in surface waters where they feed on macro zooplankton. Once partially grown (carapace length of about 75 cm), immature turtles move to inshore areas.

Threatening processes

Simulation models suggest that increased predation of eggs by Red Foxes *Vulpes vulpes* and juvenile mortality from incidental capture in coastal otter-trawl fisheries and oceanic longline fisheries have led to observed declines². Loggerhead turtles have a greater propensity than other sea turtles to consume baited longline hooks³.

Within NT waters, the main anthropogenic cause of mortality is probably capture of turtles by prawn trawlers⁴. This fishery is under the control of the Commonwealth Government and measures to reduce bycatch of turtles have been implemented⁵. One such measure, the introduction of turtle exclusion devices (TEDs) into the NT prawn fishery, has probably reduced the bycatch of Loggerhead Turtles.

Conservation objectives and management

A national recovery plan for this species, and other marine turtles, was implemented in 2017⁵. This plan includes actions that: (i) aim to reduce mortality of turtles (principally through ameliorative actions within commercial fisheries, and maintenance of sustainable harvest by Indigenous communities), (ii) develop and integrate monitoring programs; (iii) manage factors that affect reproductive success (in this case, outside 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 Chaloupka, M., Limpus, C., 2001. Trends in the abundance of sea turtles resident in southern Great Barrier Reef waters. Biol. Conserv. 102, 235–249.
- ³ Witzell, W.N., 1998. Distribution and relative abundance of sea turtles caught incidentally by the US pelagic longline fleet in the western North Atlantic Ocean, 1992–1995. Fish. Bull. 97, 200–211.
- ⁴ 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.
- ⁵ Commonwealth of Australia, 2017. Recovery Plan for marine Turtles in Australia. Commonwealth of Australia, Canberra.
- ⁶ Limpus 2009. A biological review of marine turtles. Environment Protection Agency, Queensland Government.