

Threatened Species of the Northern Territory

LOGGERHEAD TURTLE

Caretta caretta

Conservation status

Australia: Endangered

Northern Territory: Vulnerable



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Description

The loggerhead turtle is a marine turtle with a red-brown to brown shell (carapace) of ~1 m length and a relatively large head. It usually has five pairs of large scales down each side of the shell. When ashore they move with an alternating gait. Eggs are intermediate in size (mean diameter = 4.1 cm) compared with other marine turtles that breed in the NT. Hatchlings are dark brown dorsally and light brown ventrally.

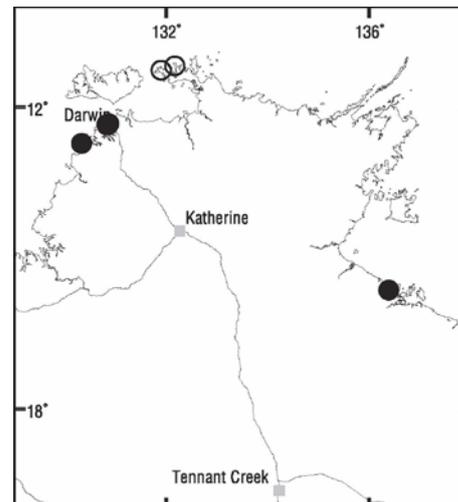
Distribution

The species has a global distribution. In Australia, breeding is centred in the southern Great Barrier Reef and adjacent mainland, on Dirk Hartog Island (Shark Bay) and Muiron Island (North West Cape) in Western Australia. The eastern and western populations are genetically distinct. No breeding is known to occur in the Northern Territory (Chatto 1998). Loggerheads from Australia migrate to the Pacific Islands and southern Asia. The animals that feed in NT waters appear to come from both the eastern and western breeding populations. When feeding in inshore areas they inhabit subtidal and intertidal coral and rocky reefs and seagrass meadows, as well as deeper, soft bottomed habitats. Feeding loggerheads are

known to occur in Northern Territory waters: they are “not uncommon, at least from Fog Bay around to north- east Arnhem Land” (Chatto 1998).

Conservation reserves where reported:

Garig Gunak Barlu National Park, Kakadu National Park.



Known locations of loggerhead turtle.
o = pre 1970 • = post 1970

Ecology

Loggerheads eat shellfish, crabs, sea urchins and jellyfish. Females migrate up to 2600 km from feeding areas to traditional nesting beaches. Females lay up to six clutches of around 125 eggs each season with 3-4 years between breeding. After hatching young

turtles take up a drifting existence in surface waters and feed on macro zooplankton. As partially grown immature turtles (shell length of ~75 cm) they move to inshore areas. They settle in one area and do not move large distances, except to breed.

Conservation assessment

The population trends in the western stock are not known but between 1985 and 1992 the population in the southern Great Barrier Reef declined by 20% and between 1985 and 1998 a decline of 65% occurred in the number of loggerheads nesting on Heron Island (Chaloupka and Limpus 2001). No data are available on trends in numbers feeding in Northern Territory waters but as the threatening processes are operating here (see below) it is concluded that a decline is likely.

Loggerhead turtles in the NT are non-breeding visitors from eastern or western Australia, where nesting populations are known to be in decline. Hence, the conservation status for this species in the NT should reflect that within its breeding range. Accordingly, the species qualifies as Endangered (under criteria A2b) due to:

- population reduction of $\geq 50\%$ over the last 10 years or three generations.

Threatening processes

Simulation models suggest that increased fox predation on eggs and mortality of pelagic juveniles from incidental capture in coastal otter trawl fisheries and oceanic longline fisheries have led to the observed declines (Chaloupka and Limpus 2001). Loggerhead turtles have a greater propensity than other sea turtles to consume baited longline hooks (Witzell 1998).

The main human-caused mortality factor operating within NT waters is probably

capture of turtles by prawn trawlers (Poiner and Harris 1996). This fishery is under the control of the Commonwealth government and measures to reduce bycatch of turtles have been implemented (Environment Australia 2003). One such measure, the introduction of turtle exclusion devices (TEDs) into the Northern 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 2003 (Environment Australia 2003).

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.

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References

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