

Threatened Species of the Northern Territory

HAWKSBILL TURTLE

Eretmochelys imbricata

Conservation status

Australia: Vulnerable

Northern Territory: Vulnerable



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Description

The hawksbill turtle is a marine turtle with a high domed heart-shaped carapace. The carapace is olive-green to brown with black, brown or red-brown markings. The scales of the carapace are overlapping, and there are four pairs of costal shield. The upper jaw juts forward to form a distinctive beak-shaped snout.

Eggs are small in size (mean diameter = 3.9 cm) compared with most other marine turtles that breed in the NT. When ashore, hawksbill turtles have an alternate gait, leaving an asymmetric track.

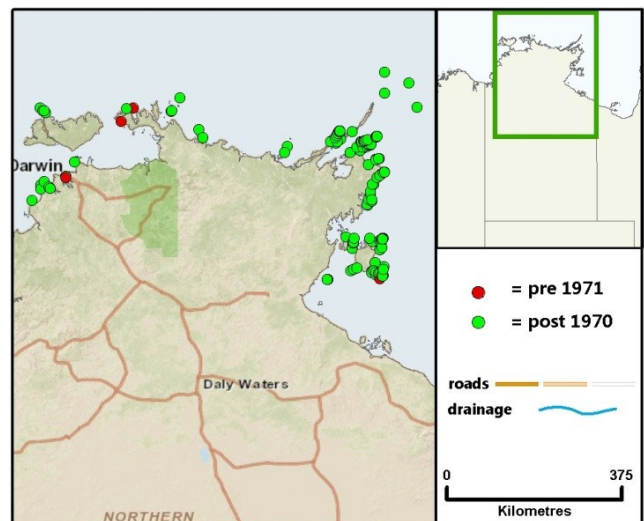
Distribution

Hawksbill turtles occur in tropical, subtropical and temperate waters of all oceans of the world. In Australia, there are two main genetically isolated populations: on the west coast, and in the Top End and northeastern Queensland.

In the NT, most nesting occurs on islands rather than mainland beaches. Principal sites are concentrated around north-eastern Arnhem land and Groote Eylandt (Chatto 1998).

Conservation reserves where reported:

Casuarina Coastal Reserve, Garig Gunak Barlu National Park, Kakadu National Park, Nanydjaka Indigenous Protected Area.



Known locations of hawksbill turtle

Ecology

Hawksbill turtles are omnivorous, eating a wide variety of plants and animals including sponges, gastropods, seagrass and algae.

Hawksbill turtles may undertake long-distance dispersal around feeding areas and to and from nesting beaches, although individuals may also be largely resident around preferred feeding areas.

In the NT, hawksbill turtles nest mainly on narrow beaches where they frequently go under vegetation to nest; and nesting occurs mainly in the latter half of the year (Chatto 1998).

Conservation assessment

In recognition of declines at some Australian breeding grounds, world-wide trends, and a substantial array of threatening factors, the hawksbill turtle is regarded as Vulnerable nationally (Environment Australia 2003).

In the NT, there are no substantial data on trends in population but there is some anecdotal evidence of at least localised decline of marine turtles in general (Kennett *et al.* 2004). The species' generation time is approximately 45 years for Indo-pacific populations (IUCN Red List Assessment). With both poor recruitment (from predation at nests by feral and native animals) and adult mortality (through ghost nets and hunting), a decline of >30% over 135 years (3 generations) is likely.

The hawksbill turtle is classified in the NT as **Vulnerable** (criterion A4e) based on:

- An inferred or suspected population reduction of >30 percent over 135 years (including past and future), where causes of reduction have not ceased (ghost nets).

Threatening processes

The major cause of mortality in NT waters of juvenile and adult hawksbill turtles is entanglement in marine debris. The northern Australian Ghost Net program does not supply quantitative estimates but a previous summary indicates this would be in the order of hundreds of hawksbill turtles annually (Kieśling 2003). There is a national Threat Abatement Plan for Marine debris and the issue has received almost 5 million dollars

over last few years – predominately because of marine turtle mortality.

There has been a global decline of the species, mostly attributed to harvesting for food. Hawksbill turtles in NT waters are part of a larger sub-population and heavy harvesting continues in neighbouring countries, such as Indonesia. There is some local indigenous harvest of hawksbill turtles in NT waters but this is not considered to be of significant impact.

As with other marine turtles, there is a broad range of other factors that threaten this species. These may include by-catch in commercial fisheries (Poiner and Harris 1996), and predation of eggs and young by dogs, pigs and goannas.

Conservation objectives and management

A national recovery plan for this species, and other marine turtles, was approved 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, largely 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.

Compiled by

Robert Taylor
Ray Chatto
John Woinarski
Scott Whiting Simon Ward
[updated December 2012]

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