

Threatened Species of the Northern Territory

GREY NURSE SHARK

Carcharias Taurus

Conservation status

Australia: Critically Endangered (east coast population); Vulnerable (west coast population).

Northern Territory: Data Deficient.



Photo: Dave Watts & Lochman Transparencies

Description

The grey nurse shark is grey-brown to bronze above and off white below. This countershaded, cryptic, colouration is typical of species that swim in open water.

Juveniles have reddish or brownish spots on the posterior half of the body. The females reach a maximum length of 3.2 m while males grow to 2.6 m (Compagno 1984; Branstetter and Musick 1994).

The grey nurse shark has a relatively short, almost conical, snout. A distinctive character of this species is that both dorsal fins and the anal fin are of a similar size.

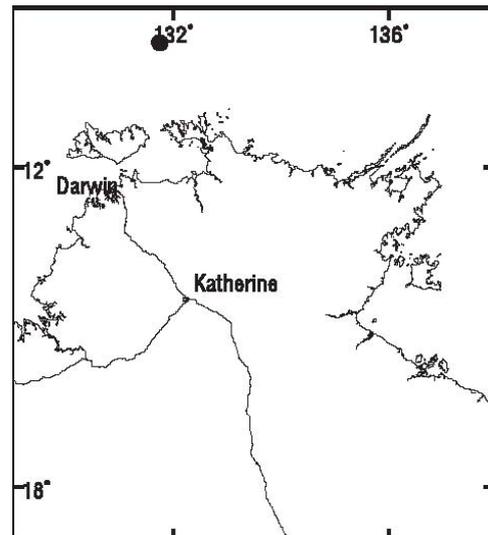
Distribution

The grey nurse shark is found primarily in warm-temperate (from sub-tropical to cool-temperate) inshore waters around the main continental landmasses, except in the eastern Pacific (Pollard *et al.* 1996). It occurs in habitats ranging from rocky inshore reefs down to around 200 m depth on the continental shelf (Pogonoski *et al.* 2002).

The species is considered rare in the Northern Territory and tends to occur further offshore than in temperate waters.

The only NT record is from around Lynedoch Bank in the Arafura Sea.

Conservation reserves where reported:
None.



Known locations of the grey nurse shark.
• = post 1970

Ecology

The grey nurse shark is a predator of a range of teleost (bony) fishes, as well as sharks, rays, squid, crabs and lobster. The species is solitary or occurs in small schools and cooperative feeding has been observed.

Large aggregations may occur around breeding time (Compagno 1984).

Females reproduce once every second year. A number of eggs are laid in an egg sac and cannibalised until one embryo remains. Gestation is between 9 –12 months (Gilmore *et al.* 1983).

Conservation assessment

Nationally, there have been major declines reported for this species, recognised in the ascription of vulnerable and endangered status to the west and east coast populations respectively.

However, in the NT waters, very little is known of grey nurse shark populations. Anecdotal evidence suggests that it is naturally rare, and the population is much smaller than in either the east or west coasts. It is also unknown whether the Northern Territory population consists of breeding individuals or comprises nomadic individuals from larger temperate zone populations.

Little is known of the size of, or trends in, the population in the Northern Territory. There are no records of the species being caught by shark fisheries and it appears that it is rarely caught as bycatch from commercial fishing operations in the Northern Territory, a factor that has contributed to dramatic population declines in other areas. The species is classified as Data Deficient due to lack of information on population trends in the NT and its likely natural rarity.

Threatening processes

The most likely potential threatening process in Northern Territory waters is incidental capture by commercial fishing operations or by illegal fishers. Populations in southern waters have declined

dramatically due to fishing (spearfishing, commercial fishing and recreational fishing) and beach protective shark meshing.

Conservation objectives and management

A national recovery plan for this species was established in 2002 (Environment Australia 2002). This plan includes a range of recommended research and management measures, including habitat protection, development of monitoring programs, and ameliorative measures for fisheries management.

The managing authority for this species in the NT is the Fisheries Section of the Department of Primary Industries, Fisheries and Mines. Currently there is no management program for the grey nurse shark in the Northern Territory.

The research priorities are to:

- (i) determine the status of the population in the Northern Territory; and
- (ii) undertake an assessment of the impacts of bycatch in commercial fishing operations.

The management priorities are to:

- (i) reduce bycatch in commercial fishing operations; and
- (ii) enhance the control and policing of illicit shark-fin fishing.

Compiled by

Simon Stirrat
Helen Larson
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References

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