

Threatened species of the Northern Territory

Northern quoll

Dasyurus hallucatus

Conservation status

Australia: Endangered

Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Critically Endangered

Territory Parks and Wildlife Conservation Act 1976

Description

The Northern Quoll is a distinctive carnivorous marsupial. It is the size of a small cat (weight 300–1,100 g), with prominent white spots on a generally dark body and a long sparsely furred tail.

Distribution

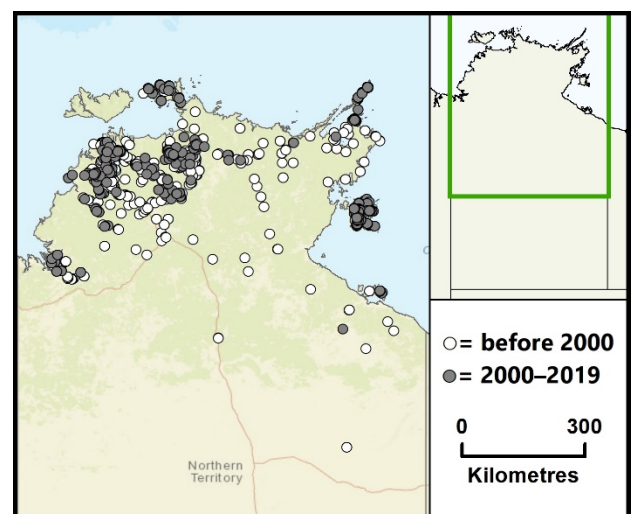
The Northern Quoll occurs across much of northern Australia, from south-eastern Queensland to the south-west Kimberley, with a disjunct subpopulation in the Pilbara. However, it has declined across much of this range¹.

In the Northern Territory (NT), the Northern Quoll is restricted to the Top End. A 1905 record from Alexandria marks the southern limit of its known NT distribution, which is now a substantial distance from recent records. It has been recorded from Groote Eylandt and the nearby North-east and Winchelsea Islands, Marchinbar Island (in the Wessel group), Inglis Island (in the English Company Islands group) and Vanderlin Island (Sir Edward Pellew group). Additional island subpopulations have been established by translocating Northern Quolls to Astell and Pobassoo islands in the English Company island group.



Credit: M. Armstrong

NT conservation reserves where reported: Black Jungle Conservation Reserve (CR), Blackmore River CR, Channel Island CR, Charles Darwin National Park (NP), Fogg Dam CR, Garig Gunak Barlu NP, Kakadu NP, Leaning Tree Lagoon Nature Park, Limmen NP, Litchfield NP, Manton Dam Recreation Area, Mary River NP, Nitmiluk NP, Tjuwaliyn (Douglas) Hot Springs Park and Umbrawarra Gorge Nature Park.



Caption: Known localities of the Northern Quoll in the NT (nrmaps.nt.gov.au)

Ecology and life-history

The Northern Quoll occurs in a wide range of habitats, but the most suitable habitats appear to be rocky areas. It was once common in many

eucalypt open forests. During the non-breeding season, home ranges cover about 35 ha, but this increases to about 100 ha for males in the breeding season². Individuals use hollow logs, rock crevices, caves and tree hollows as den sites.

Northern Quolls are generalist predators, preying on a wide range of invertebrates and small vertebrates. Most foraging is done on the ground, but they are also adept climbers.

Like many small carnivorous marsupial species, male Northern Quolls typically live for only one year³. Mating is highly synchronised, occurring in late May to early June, after which time almost all males die. Young are born in the middle of the dry season (June), and reach independence in the early wet season (November).

Threatening processes

The Northern Quoll appears to have been declining in the NT for at least several decades^{1,4}, possibly because of impacts from feral Cats *Felis catus*, disease and/or changed fire regimes. However, the spread of Cane Toads *Rhinella marina* is a far more severe threat⁵. Quolls appear to be particularly susceptible to the poison of Cane Toads, and are killed when they attempt to kill or consume them. Nonetheless, Northern Quolls can persist in some areas after Cane Toads have established. It is important that these refuge localities are protected from other threats.

Conservation objectives and management

A national recovery plan for the Northern Quoll was prepared in 2010⁸. This plan describes research and management priorities for the species across its range. Priority actions for the NT are: i) protecting key localities from colonisation by Cane Toads and Cats (especially through quarantine of offshore islands); ii) fostering recovery at localities that have collapsed following Cane Toad arrival; and iii) identifying and managing other threats to remnant Northern Quoll localities. These actions can be achieved through research, raising awareness and effective land management (e.g. reducing high fuel loads through weed control).

References

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- ⁸ Hill, B.M., Ward, S.J., 2010. National Recovery Plan for the Northern Quoll *Dasyurus hallucatus*. Department of Natural Resources, Environment, The Arts and Sport, Darwin.