

Threatened species of the Northern Territory

Northern brush-tailed phascogale

Phascogale pirata

Conservation status

Australia: Vulnerable

Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Endangered

Territory Parks and Wildlife Conservation Act 1976

Description

The Northern Brush-tailed Phascogale is a carnivorous marsupial intermediate in size between the larger Northern Quoll *Dasyurus hallucatus* and the smaller antechinuses and dunnarts. Adults have a body mass of about 150–200 g. The body is dark grey above and paler below. Its snout is notably pointed and the eyes are large. The long tail bears long black hairs on the distal two-thirds that form a conspicuous brush. These hairs can be stiffened when alarmed, giving the tail a 'bottle-brush' appearance.

This species is very similar to the Brush-tailed Phascogale *Phascogale tapoatafa*, but the ears are more elongated, the hindfeet are pure white above, and the base of the tail is covered with cream-tipped black hairs.

Distribution

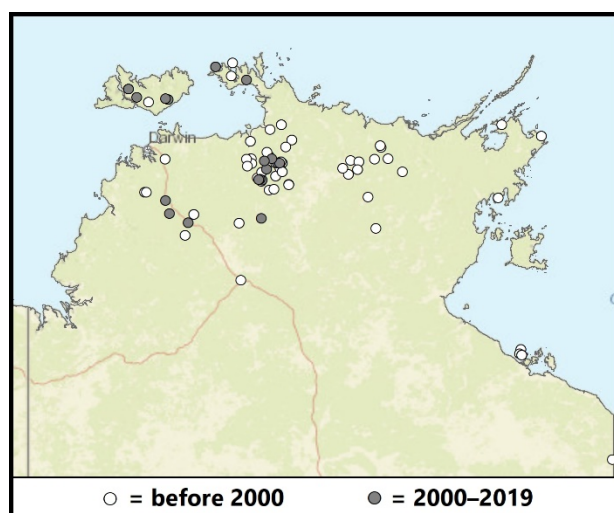
The Northern Brush-tailed Phascogale is restricted to the Top End of the Northern Territory (NT).



Credit: K. Brennan

Only a small number of records of this species have been collected since 1980. These have come from Melville Island in the Tiwi Islands, the Cobourg Peninsula, West Island in the Sir Edward Pellew group (though it is now considered extinct there), Kakadu National Park (notably around Jabiru and near Jim Jim ranger station) and Litchfield National Park. Older records were collected from the Gove and Katherine areas.

NT conservation reserves where reported: Garig Gunak Barlu National Park, Kakadu National Park and Litchfield National Park.



Caption: Known localities of the Northern Brush-tailed Phascogale in the NT (nrmaps.nt.gov.au)

Ecology and life-history

Most records of the Northern Brush-tailed Phascogale are from tall open forests dominated by Darwin Woollybutt *Eucalyptus miniata* and Darwin Stringybark *E. tetradonta*.

There has been no detailed study of the Northern Brush-tailed Phascogale, but its ecology and life-history is probably similar to that of the well-studied Brush-tailed Phascogale¹. Individuals forage in both trees and on the ground, feeding predominantly on invertebrates and occasionally small vertebrates. It is nocturnal and shelters during the day in tree hollows.

Threatening processes

Threats to the Northern Brush-tailed Phascogale are poorly understood. The precipitous decline of the species at the best-known localities coincided with the arrival of Cane Toads *Rhinella marina*. The impact of Cane Toads on this species is uncertain, but as a predator of small vertebrates the species is presumably susceptible to fatal toxicosis like other dasyurids, such as the Northern Quoll. However, declines in some Northern Brush-tailed Phascogale localities commenced prior to the arrival of Cane Toads.

The apparent retraction of the range to coastal areas, especially islands, suggests either feral Cats *Felis catus* and/or disease played a role. Habitat modification resulting from altered fire regimes and/or pastoralism may have also contributed to the decline of the Northern Brush-tailed Phascogale. Moreover, this species may be severely impacted by extensive clearing of eucalypt forests, especially those with hollow-bearing trees², for horticulture or forestry plantations.

Conservation objectives and management

There is no existing recovery plan or management program for the Northern Brush-tailed Phascogale. In the interim, the priority is to improve knowledge of the distribution, abundance, habitat requirements and population

trends of this species. This will require a detailed autecological study and a distributional survey.

References

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- ³ Dahl, K., 1897. Biological notes on north-Australian mammalia. *Zoologist*, Series 4, 1, 189–216.
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