

THREATENED SPECIES OF THE NORTHERN TERRITORY

NORTHERN BRUSH-TAILED PHASCOGALE

Phascogale (tapoatafa) pirata



Conservation status

Australia: Not listed.

Northern Territory: Vulnerable.

Description

The northern brush-tailed phascogale is a carnivorous marsupial about midway in size between the larger northern quoll and the small antechinuses and dunnarts. Its most notable feature is the long dark hairs on the tail, which form a distinctive brush. The hairs can be stiffened when alarmed, giving a bottle-brush appearance. The general body colour is dark grey, the snout is notably pointed and the eyes are large. Body weight is about 150-200 g.



Northern brush-tailed phascogale (Photo: M. Armstrong)

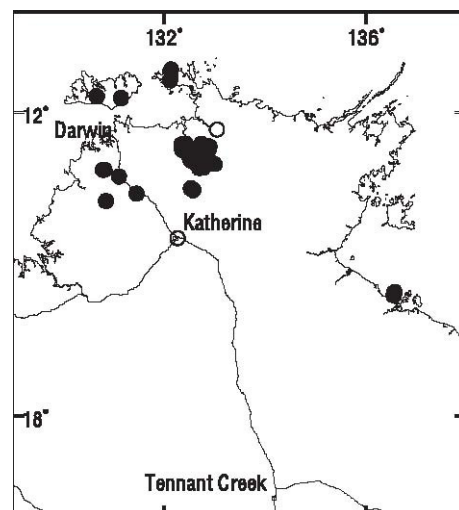
Distribution

Recent taxonomic studies (Rhind *et al.* 2001, Spencer *et al.* 2001) have suggested that the northern population of brush-tailed phascogale is specifically distinct from that in south-western and south-eastern Australia. As redefined, the northern brush-tailed phascogale is restricted to the Top End of the Northern Territory, and is taxonomically distinct from populations in the Kimberley and Cape York Peninsula.

There are relatively few records in the Northern Territory: the most recent (since 1980) are from the Tiwi Islands, Cobourg Peninsula, West Pellew Island, Kakadu National Park (notably around Jabiru and near Jim Jim ranger station), and Litchfield National Park. There are older records from the Gove and Katherine areas.

Conservation reserves where reported:

Garig Gunak Barlu National Park, Kakadu National Park, Litchfield National Park.



Known locations of the northern brush-tailed phascogale.

○ = pre 1970; ● = post 1970.

Ecology

There have been no detailed studies of the northern brush-tailed phascogale, but its ecology is probably similar to that reported for its temperate relatives (Rhind 1998). The diet is predominantly invertebrates with some small vertebrates. It is a nocturnal mammal, feeding both in trees and on the ground. It shelters in tree hollows during the day. Most



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records are from tall open forests dominated by *Eucalyptus miniata* (Darwin woollybutt) and *E. tetradonta* (Darwin stringybark).

Conservation assessment

Conservation assessment is hampered by the lack of precise information on range, population size and trends. Decline is evident from variation between historic statements about status and current assessments: most notably Dahl (1897) reported that “on the rivers Mary and Katherine it was frequently observed. In fact nearly everywhere inland it was very constant, and on a moonlight walk one would generally expect to see this little animal”. This is certainly no longer the case. Biodiversity surveys across the Top End over the last decade have resulted in fewer than 10 captures of brush-tailed phascogales in more than 350,000 trap-nights. However this meagre tally may also partly reflect some degree of trap-shyness. Recent (2003-2005) attempts to relocate the species on West Island have been unsuccessful (Taylor *et al.* 2004; S. Ward *pers. comm.*).

It best fits the status of **Vulnerable** (under criteria C2ai) based on:

- population size estimated to number fewer than 10,000 mature individuals;
- a continuing decline, observed, projected or inferred, in numbers of mature individuals; and
- no subpopulations estimated to contain more than 1000 mature individuals.

Threatening processes

There are no data available to evaluate threatening processes. The apparent decline to coastal areas and especially islands suggests either exotic predators (cats) or disease. Other factors potentially involved may include vegetation change due to altered fire regimes and/or pastoralism. This species may be severely disadvantaged by extensive

clearing of eucalypt forests, especially those with hollow-bearing trees (Firth *et al.* 2006), for horticulture of forestry plantations. As a predator of small vertebrates, this species may be affected by the arrival of cane toads, but there is no relevant information available to assess the likelihood of this potential threat.

Conservation objectives and management priorities:

There is no existing explicit recovery plan or management program for this species. In the interim, the major priority is to firm up knowledge of the distribution, abundance, habitat requirements and trends for this species. This will require a detailed autecological study and a distributional survey.

Compiled by

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