



Brush-tailed Phascogale *Phascogale tapoatafa* (Meyer, 1793)

Size

(Measurements are for Victorian phascogale which are typically larger than animals from Western Australia)

Head and body length

160-261 (199) mm in males

148-223 (181) mm in females

Tail length

175-234 (207) mm in males

160-226 (194) mm in females

Weight

0.18-0.31 (0.23) kg in males

0.11-0.21 (0.16) kg in females



Photo: Babs & Bert

Subspecies

The taxonomy of Brush-tailed Phascogale in Australia is currently subject to debate. Morphological and genetic evidence suggest three (and possibly more) subspecies. The south-western Australian animals are thought to be a distinct taxon but have not been formally described.

Description

Small, strongly arboreal dasyurid, grizzled grey above and cream to white below with large naked ears and a conspicuous black 'bottle-brush' tail. The claws are long and sharp and the hind feet have striated foot pads.

Other Common Names

Common Wambenger (Western Australia), Tuan (Victoria)

Distribution

The brush-tailed phascogale occurs in isolated populations around mainland Australia.

In northern Australia Brush-tailed Phascogales were previously known from a small number of localities in the Kimberley (Western Australia), Top End of Northern Territory and Cape York Peninsula. Recent records are few from these areas, though records from the Jabiru area of the NT are frequent.

The species was formerly widespread in eastern and south-western Australia and presumed abundant in appropriate habitat of woodland and open forest.

In Western Australia the Brush-tailed Phascogale is now known to occur in the south west between Perth and Albany. It occurs at low densities in the northern Jarrah forest. Highest densities occur in the Perup/Kingston area, Collie River valley, and near Margaret River and Busselton.

For further information regarding the distribution of this species please refer to www.naturemap.dpaw.wa.gov.au

Habitat

In northern Australia all sightings are in drier habitats with recent records across northern Australia occurring in tall open forest of *Eucalyptus miniata* and *Eucalyptus tetradonta*. In Cape York, records have been from *Hibiscus* trees, and from sparse open woodlands.

In southwest Western Australia Brush-tailed Phascogale have been observed in dry sclerophyll forests and open woodlands that contain hollow-bearing trees. Records are less common in high rainfall areas.

Behaviour

The Brush-tailed Phascogale is active between dusk and dawn, with individuals foraging almost exclusively among the tree canopy. Individuals tear the bark from trees to reach and remove prey. During the breeding season, females can repel an approaching male by a vocal threat.

Male home ranges (area of occupancy) overlap with those of other males and females, and increase in size during the breeding season. Female ranges cover 20-70 ha, and do not overlap those of unrelated females.

Nesting varies across the year, with individuals using more than 20 nest sites across the year. Nest sites include hollow tree limbs, rotten stumps, and even bird nests. Lactating females show a preference

for large tree cavities with small entrances. They construct nests with bark, feathers and fur.

Diet

Brush-tailed Phascogales are opportunistic feeders. In Victoria, they are primarily arboreal insectivores. Their diet includes invertebrates (cockroaches, beetles, centipedes, spiders, ants, and moths), nectar, small birds and small mammals.

Breeding

Mating period varies with locality, but generally occurs over a three-week period from mid-May to early July. During the breeding season, males have large home ranges. Mating may last for one hour, and often occurs in tree hollows. The gestation period is approximately 30 days, with a litter size between three and eight offspring. The open pouch develops a fleshy rim that completely encloses the newborn young. At seven weeks, the young are deposited into a maternal nest. When the female leaves the nest to forage for food, the young cool down and become torpid (inactive), but are warmed when the female returns to the nest every few hours. Mortality of the young is highest during these initial lactation periods. Maternal attendance decreases as the young acquire fur. At 20 weeks of age, the mother does not return to the nest until dawn. Juveniles disperse in mid summer, with males moving larger distances than females. Like some other dasyurids, there is a male die-off following the mating season, weakened by stress-induced illnesses, they usually fall prey to owls, foxes and cats.

Threatening processes

Habitat clearing, fragmentation, and alteration by logging and mining are the greatest threats to Brush-tailed Phascogales. As they reduced availability of trees with hollows, and subsequently increase susceptibility to predation by foxes and cats. Residual habitat is often fragmented, thereby isolating populations and impeding genetic exchange. In northern Australia additional threats include the risk of predation by cane toads, and changed fire frequencies that may limit hollow availability.

Conservation status

- *Phascogale tapoatafa*

IUCN Red List of Threatened Species

Near threatened (Version 3.1)

- *Phascogale tapoatafa* ssp. (WAM M434)

Western Australian Wildlife Conservation Act 1950

Schedule 1 – Fauna that is rare or is likely to become extinct
(Threatened ranked as Vulnerable)

Management

- Introduced predator control.
- Silvicultural prescriptions to ensure adequate retention of habitat trees with suitable hollows.
- Identify key populations to meet conservation objectives.
- Clarification of taxonomy

Other interesting facts

- When alarmed, the Brush-tailed Phascogale taps its forefeet repeatedly against the bark of a tree.
- Females may live to three years in the wild by which time their canine teeth are blunt and their incisors worn nearly to the gum.
- The Brush-tailed Phascogale is an agile tree climber, and its hind foot can be rotated 180° at the ankle to aid it with its climbing.

Selected references

- Rhind, S. (1993-94). Fascinating Phascogales. *Landscape* 9(2): 35.
- Soderquist, T. and Rhind, S. (2008). Brush-tailed Phascogale. In Van Dyck, S. and R. Strahan (Eds.) *The Mammals of Australia*. Reed New Holland. Sydney.
- Maxwell S., Burbidge A.A, Morris K. (Eds) (1996). *The 1996 Action Plan for Australian Marsupials and Monotremes*. Wildlife Australia, Canberra.
- Rhind, S. G. (1996). Habitat tree requirements and the effects of removal during logging on the marsupial brush-tailed phascogale (*Phascogale tapoatafa tapoatafa*) in Western Australia. *The Western Australian Naturalist* 21: 1-22.

Last updated 8 February 2012, for further enquiries please contact fauna@dpaw.wa.gov.au

Further information

Contact your local office of the Department of Environment and Conservation.

See the department's website for the latest information: www.dec.wa.gov.au.

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