



Brush-tailed Phascogale

Phascogale tapoatafa (Meyer, 1793)

Other common names Tuan, Common Wambenger, Black-tailed Phascogale

Conservation status

The Brush-tailed Phascogale is listed as a **Vulnerable Species** on Schedule 2 of the *Threatened Species Conservation Act, 1995* (TSC Act).

Description (summarised from Soderquist 1995)

Head and Body Length

180-230 (202)mm (males)

160-190 (179)mm (females)

Tail Length

175-220 (199)mm (males)

170-210 (182)mm (females)

Weight

175-235 (199)g (males)

110-190 (145)g (females)

The most distinguishable feature of the Brush-tailed Phascogale is its conspicuous, intensely black, 'bottle-brush' tail with hairs up to 40mm long. The head, back and flanks are covered by uniform, deep grizzled grey fur, which is generally pale cream underneath. The ears are large and naked.

Distribution

The Brush-tailed Phascogale has a patchy distribution around the coast of Australia, from near sea level up to 1500m (Soderquist 1995). The northern subspecies *Phascogale tapoatafa pirata* occurs across the northern tip of Cape York Peninsula in Queensland, the north coast of the Northern Territory and the northern tip of Western Australia. The southern sub-species *Phascogale tapoatafa tapoatafa* occurs from Rockhampton in Queensland to the Mt Lofty Ranges in South Australia and in an isolated population in southern Western Australia (Soderquist 1995).

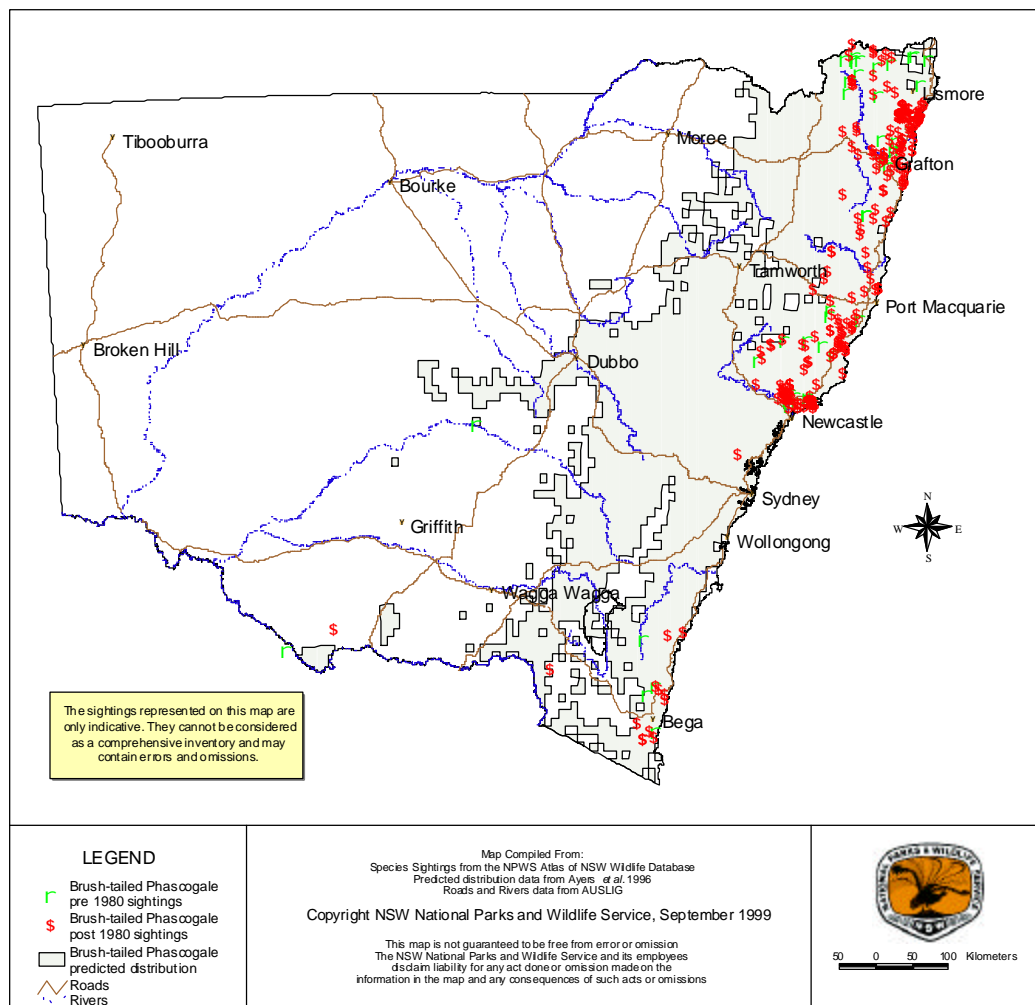
Within NSW, the species appears to be most abundant in the north-east and south-east of the State, particularly within forest habitats on the Great Dividing Range (Dickman & Read 1992; Ayers *et al.* 1996).

By comparison, the species is rare in semi-arid and arid environments (Dickman & Read 1992). Recently individuals were recorded in Tuppal State Forest near



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NPWS records of the Brush-tailed Phascogale in NSW

Deniliquin (L. Conole pers. comm in Ayers *et al.* 1996), while unconfirmed sightings of the species have been made near Nymagee, about 75km south-east of Cobar and in the Hervey Ranges near Parkes (Ayers *et al.* 1996). Specimens are known from ~20km south of the Murray River at Mount Hope in Victoria and near Condobolin in NSW (Dickman & Read 1992).

Recorded occurrences in conservation reserves

The Brush-tailed Phascogale has been recorded in National Parks, Nature Reserves and State Recreation Areas on the south, mid-north and north coast and adjacent inland areas of NSW (NPWS 1999).

Habitat

The preferred habitat of the Brush-tailed Phascogale is dry sclerophyll open forest, with a sparse ground cover of herbs, grasses, scleromorphic shrubs or leaf litter (Soderquist 1995). However, individuals may also inhabit heathland, swamps, rainforest and wet sclerophyll forest (Dickman & McKechnie 1985). The species occurs primarily where the annual rainfall exceeds 500mm (Traill & Coates 1993).

Ecology

The small, mainly arboreal Brush-tailed Phascogale is an agile climber and often observed clinging head-down below branches. Individuals forage preferentially in rough-barked trees of 25cm DBH or

greater, where available (Soderquist 1993). The species is nocturnal and carnivorous, feeding on invertebrates and arthropods (such as spiders, centipedes, beetles and cockroaches), nectar and occasionally small vertebrates (Soderquist 1995). Individuals use their fingers to extract prey from crevices and under bark.

The females inhabit territories of approximately 20-60ha, while the males maintain territories of up to 100ha. The territory of a female is exclusive, however, the territory of a male may overlap with other females and males (Soderquist 1993).

The Brush-tailed Phascogale nests and shelters in tree hollows, utilising many different hollows over a short time span. Suitable hollows are 25-40mm wide (Ayers *et al.* 1996) lined with leaves and shredded bark and covered with pungent faeces which serves as a territorial marker (Soderquist 1995).

Mating occurs between May and July, during which time males can travel long distances well beyond their territories. Males die soon after the mating season.

The gestation period is around 30 days and the litter size is usually between 3 and 8. At 7 weeks, juveniles leave the pouch but remain in the nest until they are weaned at approximately 20 weeks. Mortality is usually high prior to and following weaning (Soderquist 1995). After weaning, juvenile males disperse while females establish their home-range nearby, or remain within the natal range (Soderquist 1995). Females can live for up to 3 years, but generally produce only one litter.

Threats (summarised from Ayers *et al.* 1996; NPWS in prep.)

- Loss and fragmentation of habitat through clearing for agriculture and urban development
- Logging of hollow bearing trees suitable for nesting
- Inappropriate fire regimes leading to a reduction in foraging and shelter resources
- Predation by foxes and cats
- Competition for suitable nesting hollows with the introduced honeybee
- Natural or other hazards, acting on populations, fragmented by habitat loss

Management

- Further survey and habitat quality assessment for the species
- Protection and maintenance of known or potential habitat, including the implementation of protection zones around recent records
- Control programs, targeting introduced predators in recently disturbed areas with known or potential habitat for the species
- Alteration of prescribed burning and grazing regimes to enhance and maintain floristic and structural diversity of the vegetation within known or potential habitat
- Provision of nest boxes in areas where tree-hollows have been removed

Recovery plans

A recovery plan is being prepared for this species.

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For further information contact

Threatened Species Unit, Policy and Science Directorate Phone 02 9585 6540.

General enquiries: 43 Bridge St Hurstville NSW 2220 Phone 1300 36 1967 or 02 9585 6333.

Web site www.npws.nsw.gov.au



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