

Brushtail Possum

Trichosurus vulpecula (Kerr 1792)

Size

Head and body length
350–550 mm

Tail length

250–400 mm

Weight

1.3–4.5 kg in males
1.2–3.5 kg in females



Photo: Babs & Bert Wells/Department of Conservation and Land Management

Subspecies

Six subspecies are recognised across Australia:

- *T. v. hypoleucus*, south-western Australia
- *T. v. vulpecula*, south-eastern Australia
- *T. v. arnhemensis*, tropical northern Australia, including the Pilbara and Kimberley of Western Australia
- *T. v. eburacensis*, Cape York
- *T. v. johnsoni*, central eastern Australia
- *T. v. fuliginosus*, Tasmania.

Description

Generally silver-grey above, white to pale grey below, however there is considerable variation in colour and size across its range. Those in Queensland exhibit short hair and are copper-coloured, those in Tasmania are larger, darker in colour, and more woolly. The very dark possums inhabit denser, wetter forests than the grey. Pure golden possums are the result of a genetic mutation and most do not survive long in the wild because they are conspicuous to predators. Brushtails found in Western Australia are usually silver-grey with a pale belly. Males are often larger than females and usually have rufous fur on the shoulders. In addition, males also often have a reddish stain on their chest, indicating an active scent gland. Long oval ears (50 to 60 millimetres), tail varies from bushy to sparsely furred with short, terminal, naked area underneath. The tip can be either black or white.

Other common names

Common brushtail possum

Distribution



Key To Map: Dark grey = present distribution; Mid-grey = historic (> 30 years);
Hatched = Late-Holocene sub-fossil

Brushtail possums occur across Australia, offshore islands, and New Zealand (where there were a series of introductions between 1837 and 1924). They are common in towns and cities, but are now very rare in arid central Australia. *T. v. hypoleucus* occurs throughout the south-west of Western Australia from the mid-west coast to

east of Esperance and as far inland as Laverton. It has disappeared from most of the arid parts of its former range.

Habitat

The brushtail possum is known to occupy a variety of habitats from forest and woodlands that provide sufficient trees with hollows, to ground refuges such as hollow logs. Other refuges include rock piles and the burrows of other animals including boodies. On Barrow Island, Western Australia, they live on the ground where there are no trees. In cities, possums often seek shelter, warmth and protection in the dark recesses of buildings. A favoured spot is between the ceiling and the roof and this can be a problem to some people. The brushtail possum remains restricted to tree hollows in areas where foxes occur.

Behaviour

A nocturnal animal, it spends the day in a den in a hollow dead branch, tree-trunk, fallen log, rock cavity or even a hollow termite mound. Brushtail possums lead a largely solitary life. However in areas where numbers are high and shelter is in short supply several may share sleeping places. Home ranges vary from one to 15 hectares. Communication is by sound and scent. Deep guttural coughs and sharp hisses are frequent, particularly in the breeding season, and extensive use is made of glands under the chin, on the chest and near the anus to mark areas and define occupancy. In some populations males may establish territories but vocal and olfactory signs are usually sufficient to establish den ownership and to maintain sufficient inter-individual distances to minimise direct aggression.

Diet

Brushtail possums are herbivores. Leaves comprise the bulk of the diet. Some of the preferred species are very toxic including *Gastrolobium* species in Western Australia and some *Eucalyptus*. The choice of leaves is determined mainly by their nutrient and fibre content and demonstrates a remarkable tolerance to plant toxins. Flowers and fruits form an important component of the diet, particularly in the arid and tropical areas where these foods are essential to successful breeding. Meat is eaten only very occasionally in the wild. They can damage crops and gardens because they are partial to exotic plants, pasture grasses and vegetables as well as native plants.

Breeding

Most populations have a major autumn and minor spring breeding season but some - including those in the tropics and arid regions - breed continuously if the required food supplies are available. Females usually begin to reproduce when about one year old. Where breeding is seasonal, over 90 per cent of females breed annually and in some populations 50 per cent may breed in both seasons. A single young is born between 16 and 18 days after copulation and spends four to five months in a well-developed pouch, attached to one of two teats. A further one to two months are spent suckling and riding on the mothers' back before weaning is completed. Few young die in the pouch but considerable mortality can occur at 6 to 18 months of age when juveniles are dispersing from the area of their birth in an endeavour to establish home ranges.

Threatening processes

In most Australian States during the 1800s and early 1900s, large numbers of brushtail possums were killed for their pelts. Their fur is prized for its thickness and warmth and there is currently a small possum skin industry in Tasmania. Regardless of this trade in fur, possums have remained abundant in certain areas, and particularly so in New Zealand, where densities reach two to five times those of Australia. In Australia, clearing of suitable refuge sites and

fox predation has considerably reduced their former range, and they have also disappeared from large areas of more arid country. The dingo, cat, fox, large pythons and large monitors are known to prey on the brushtail possum and can significantly affect numbers when population sizes are low.

Conservation status

- *T. v. hypoleucus*

2000 IUCN Red List of Threatened Species	Lower Risk (near threatened)
Western Australian Wildlife Conservation Act	Not listed
Environment Protection and Biodiversity Conservation Act	Not listed

- All other subspecies

2000 IUCN Red List of Threatened Species	Not listed
Western Australian Wildlife Conservation Act	N/A
Environment Protection and Biodiversity Conservation Act	Not listed

Management in Western Australia

- This species is now protected on the mainland of Australia and partly protected in Tasmania.
- Populations of *T. v. hypoleucus* are regularly monitored within the Jarrah forests and woodland sites of the south-west of Western Australia.

Other interesting facts

- Studies of the behaviour of brushtail possums have shown that about 16 per cent of their time is spent feeding, 30 per cent travelling, 44 per cent sleeping or sheltering, and 10 per cent grooming.
- In New Zealand the brushtail possum has become a major pest and a host to bovine tuberculosis, but its skin supports a lucrative fur trade.

Selected references

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Maxwell S., Burbidge A.A, Morris K. (Eds) (1996). *The 1996 Action plan for Australian Marsupials and Monotremes*. Wildlife Australia, Canberra.

Website links

http://www.naturebase.net/projects/west_shield.html
http://www.naturebase.net/plants_animals/mammal_possum.html
<http://www.ea.gov.au/biodiversity/threatened/action/marsupials/27.html>
<http://home.vicnet.net.au/~animals/alibvic/possum.htm>
<http://www.wildlife-australia.com/possums.htm>
<http://www.nre.vic.gov.au/animals/possums/>
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