

# Threatened species of the Northern Territory

## Common brushtail possum (central and south-eastern)

*Trichosurus vulpecula vulpecula*

### Conservation status

**Australia: Not listed**

Environment Protection and Biodiversity Conservation Act 1999

**Northern Territory: Endangered**

Territory Parks and Wildlife Conservation Act 1976



Credit: M. Barritt

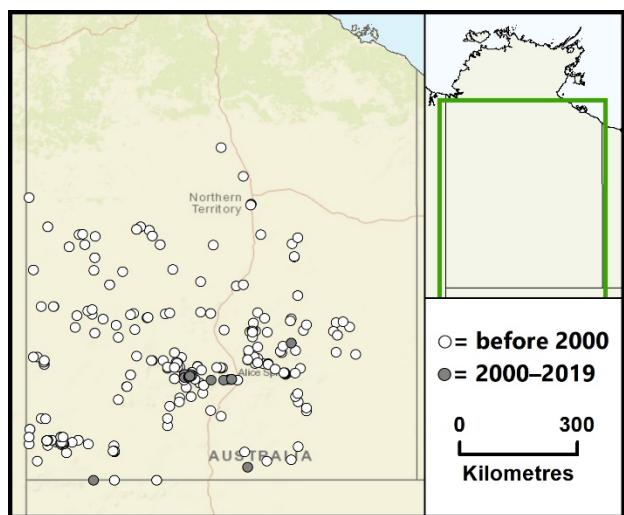
### Description

The Common Brushtail Possum is a medium-sized marsupial, weighing about 2.0 kg on average, with a pointed snout, pink nose, long whiskers and large oval-shaped ears. The body is grey above and paler grey to white below. The species is named after its long bushy black tail, which is sparsely furred or naked ventrally.

### Distribution

The Common Brushtail Possum was once widely distributed across the Australian continent. However, the species underwent a severe decline following European settlement, disappearing from most of its former range in inland Australia by the early 1940s<sup>1-2</sup>. By the early 1990s, the distribution of the Common Brushtail Possum in arid and semi-arid Australia had become restricted to the ranges west and north-east of Alice Springs, Irving Creek (Petermann Ranges) and the Burt Plain in the Northern Territory (NT)<sup>2</sup>, and in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands in South Australia<sup>3</sup>.

The decline of the species has continued and it is believed to have become extinct in some of these areas. It is not known if the Common Brushtail Possum still persists in the West MacDonnell Ranges. The subspecies remains relatively common in eastern and south-eastern Australia.



Caption: Known localities of the Common Brushtail Possum (central and south-eastern) in the NT ([nrmaps.nt.gov.au](http://nrmaps.nt.gov.au))

Two subspecies of the Common Brushtail Possum occur in the NT: *Trichosurus vulpecula vulpecula* in the south, and *T. v. arnhemensis* in the Top End. The historical distributional boundary between the two subspecies is poorly known.

NT conservation reserves where reported: Tjoritja/West MacDonnell National Park, Iytwelepenty/Davenport Ranges National Park, Finke Gorge National Park, Arltunga Historical Reserve and Uluru-Kata Tjuta National Park.

## Ecology and life-history

In Central Australia, the Common Brushtail Possum once occupied a wide range of habitats including rocky ranges, smaller rocky outcrops, eucalypt-lined watercourses, coolibah claypans, limestone sinkholes and spinifex grasslands with scattered eucalypts<sup>1-2</sup>. However, by the 1990s, the species had become restricted to riverine habitats close to rocky outcrops, moist gullies within ranges and rocky slopes<sup>2</sup>. These contemporary habitats occur on various geological substrates but are characterised by diverse associations of fire-sensitive plant species. During the day, Common Brushtail Possums shelter in caves, rock holes and crevices, tree hollows or hollow fallen logs. Their diet is comprised primarily of leaves, but flowers and fruits are important components. Breeding can occur at any time of the year in the southern NT. Generation length is estimated to be 5–6 years<sup>4</sup>.

## Threatening processes

The causes of the historical decline of the Common Brushtail Possum in Central Australia are not well understood. Nonetheless, a number of threats are thought to have contributed to local extinctions, namely habitat degradation by livestock grazing, rabbits and camels; hunting for the fur trade; altered fire regimes; and predation by Red Foxes *Vulpes vulpes*, feral Cats *Felis catus* and Dingoes *Canis familiaris dingo*<sup>2</sup>. It is hypothesised that Common Brushtail Possum distribution contracted to high-quality refuge habitats during the severe droughts of the 1920s and 1950s, which greatly increased their vulnerability to one or more of these threats and resulted in local extinctions<sup>2</sup>.

## Conservation objectives and management

Conservation management priorities for the subspecies in the NT include: monitoring the subspecies in core areas of the Tjoritja/West MacDonnell National Park; undertaking predator control measures if predation is shown to affect their persistence within conservation reserves; and assessing the feasibility of establishing a captive-insurance population and/or reintroductions.

Research priorities for the subspecies are to determine the extent of its distribution within the Tjoritja/West MacDonnell National Park, and investigate evidence for the persistence of the subspecies in other areas.

## References

- <sup>1</sup> Burbidge, A.A., Johnson, K.A., Fuller, P.J., Southgate, R.I., 1988. Aboriginal knowledge of the mammals of the Central deserts of Australia. Aust. Wildl. Res. 15, 9–39.
- <sup>2</sup> Kerle, J.A., Foulkes, J.N., Kimber, R.G., Papenfus, D., 1992. The decline of the brushtail possum, *Trichosurus vulpecula* (Kerr 1798), in arid Australia. Rangeland J. 14, 107–127.
- <sup>3</sup> Robinson, A.C., Copley, P.B., Carty, P.D., Baker, L.M., Nesbitt, B.J. (Eds), 2003. A Biological Survey of the Anangu Pitjantjatjara Lands, South Australia, 1991–2001. Department for Environment and Heritage, South Australia.
- <sup>4</sup> Woinarski, J.C.Z., Burbidge, A.A., Harrison, P.L. (Eds), 2014. The Action Plan for Australian Mammals 2012. CSIRO Publishing, Canberra.