# Threatened species of the Northern Territory

## Fawn hopping-mouse

## *Notomys cervinus*

### Conservation status

**Australia: Not listed**
Environment Protection and Biodiversity Conservation Act 1999

**Northern Territory: Least Concern** (Extinct in the NT)
Territory Parks and Wildlife Conservation Act 1976

### Description

The Fawn Hopping-mouse is a medium-sized rodent with a body mass of 30–50 g, combined head and body length of 10–12 cm and tail length of 11–16 cm. The underside is white, while the upperbody colour varies among individuals, ranging from pale pinkish-fawn to grey. The head is broad and short, with large ears, protuberant eyes and exceptionally long (up to 6.5 cm) whiskers. Its long tail is brownish pink above and whitish below, with a terminal tuft of dark hairs. Like other hopping-mouse species, the hind feet are elongated.

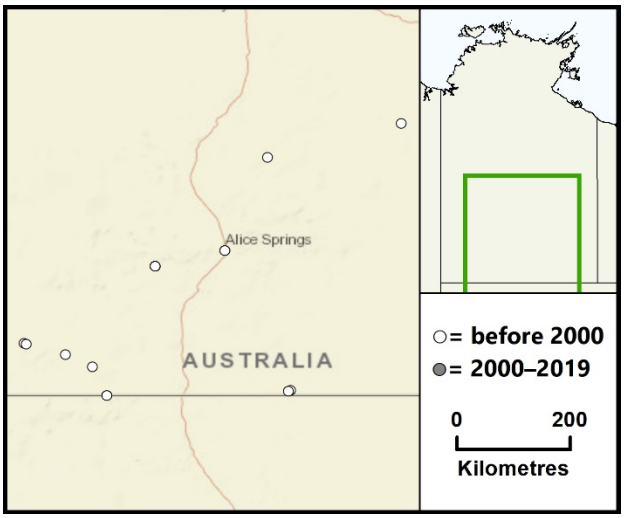
The absence of a throat pouch in both sexes, and the presence of a small glandular area (up to 6 mm wide) of naked skin between the forelegs of males (and occasionally females), distinguish the Fawn Hopping-mouse from the similar Dusky Hopping-mouse *Notomys fuscus* and Spinifex Hopping-mouse *Notomys alexis*[1].

Credit: P Canty

### Distribution

The Fawn Hopping-mouse formerly ranged across most of the Lake Eyre Basin, including the south-eastern corner of the Northern Territory (NT), as well as on the Nullarbor Plain in south-western South Australia.

It is now largely restricted to the Channel Country bioregion in the north-east corner of South Australia and south-west Queensland.




Caption: Known localities of the Fawn Hopping-mouse in the NT (nrmaps.nt.gov.au)

In the Northern Territory (NT), the species is only known with certainty from Charlotte Waters. Specimens purportedly collected from near Alice Springs and further to the north-east have insufficient information to confirm their provenance. The validity of records from the Uluṟu-Kata Tjuṯa National Park and surrounds also cannot be confirmed.

NT conservation reserves where reported: None.

## Ecology and life-history

The Fawn Hopping-mouse occurs primarily on open gibber (stony) and clay plains with smaller areas of overlying sand, which are dominated by small ephemeral grasses and forbs, though a sparse cover of taller perennial plants may also be present. However, anecdotal observations in the 1930s[2], when the species was more widely distributed, suggest it may have once occupied a broader range of habitats. The species constructs simple burrows in gibber or claypans, presumably when the soil is softened by rain. Fawn Hopping-mice are nocturnal and shelter in their burrows during the day, thereby avoiding high daytime temperatures.

The Fawn Hopping-mouse primarily eats seeds, but it also consumes green plant material and insects when they are available. Although they do not require free-standing water, a high tolerance to salt enables Fawn Hopping-mice to obtain water from consuming succulent salt-tolerant plants (halophytes).

The species is evidently solitary or lives in small groups. Breeding appears to be opportunistic, occurring when conditions are favourable. Fecundity is lower than some other hopping-mouse species. After a gestation period of 38–43 days, 1–5 pups are born and take about one month to reach independence. The abundance of the Fawn Hopping-mice can increase considerably during periods of high plant productivity following exceptionally high rainfall. Generation length is estimated to be 2.5 years[3].

## Threatening processes

Threats to the Fawn Hopping-mouse are poorly understood. Possible threats include habitat degradation by livestock and feral ungulates, dietary competition with livestock and introduced herbivores, and predation by feral Cats *Felis catus* and Red Foxes *Vulpes vulpes*. High stocking rates of sheep and cattle in the early 20th century may have contributed significantly to the historical decline[4].

## Conservation assessment

The most recent confirmed record of the Fawn Hopping-mouse in the NT was collected in 1895. Targeted surveys for the species carried out between May 2008 and June 2009 on New Crown and Andado Stations failed to detect the species. These surveys included the general area of historical collection localities and suitable gibber plain habitat. Similarly, other comprehensive fauna surveys have not recorded the Fawn Hopping-mouse, including the Finke Bioregion survey[5], Charlotte Waters surveys[6] and long-term monitoring at Andado Station and Mac Clark Conservation Reserve.

The Fawn Hopping-mouse is not listed at a national level and the species is presumed to be extinct in the NT. It is therefore listed in the NT as Least Concern (Extinct in the NT).

## Conservation objectives and management

As the Fawn Hopping-mouse is believed to be extinct in the NT, there are currently no conservation objectives for the species within the NT. Any reliable potential sightings of the species should be followed-up as soon as possible.

## References

[1] Watts, C.H.S., Aslin, H.J., 1981. The Rodents of Australia. Angus and Robertson, Sydney.

[2] Finlayson, H.H., 1939. On mammals from the Lake Eyre Basin, Part IV. The Monodelphia. Trans. Roy. Soc. South Aust. 63, 88–118.

[3] Woinarski, J.C.Z., Burbidge, A., Harrison, P., 2014. The Action Plan for Australian Mammals 2012. CSIRO Publishing, Canberra.

[4] Burbidge, A.A., Woinarski, J., 2016. *Notomys cervinus*. The IUCN Red List of Threatened Species 2016: e.T14868A22401250.

[5] Neave, H., Nano, C., Pavey, C., Moyses, M, Clifford, B., Cole, J., Harris, M., Albrecht, D., 2004. A Resource Assessment towards a Conservation Strategy for the Finke Bioregion, Northern Territory. NT Department of Infrastructure, Planning and Environment, Alice Springs.

[6] Eldridge, S., Reid, J., 2000. A biological survey of the Finke floodout region, Northern Territory. Arid Lands Environment Centre, Alice Springs.