

Threatened species of the Northern Territory

Northern hopping-mouse

Notomys aquilo

Conservation status

Australia: Vulnerable

Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Vulnerable

Territory Parks and Wildlife Conservation Act 1976

Description

The Northern Hopping-mouse is a small rodent, weighing between 25 g and 50 g. It is sandy-brown above and white below with conspicuous large dark eyes. It has an extremely long tail, which is around 1.5 times as long as the combined head and body length, and is tipped with a tuft of longer dark hairs. The hindfeet are narrow and elongated, measuring 35–40 mm long.

This species is the only hopping-mouse species in the Top End of the Northern Territory (NT). The distribution of the similar-looking Spinifex Hopping-mouse *Notomys alexis* extends north only to the Barkly Tableland.

Distribution

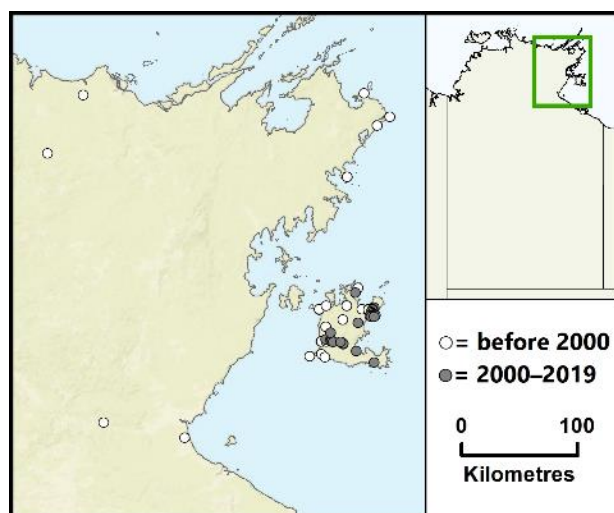
In the NT, the species is known from Groote Eylandt and coastal north-eastern Arnhem Land, with unvouchered records from a few hundred kilometres further south, west and inland¹⁻³. A single specimen is the only known occurrence of the species in inland central Arnhem Land.



Credit: R. Diете

Its purported occurrence outside of the NT, in Cape York Peninsula, is known only from a single specimen of doubtful provenance collected before 1867.

NT conservation reserves where reported: Anindilyakwa (Groote Eylandt) Indigenous Protected Area and Nanydjaka (Cape Arnhem) Indigenous Protected Area.



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

Ecology and life-history

The Northern Hopping-mouse is largely restricted to habitats with sandy substrates, particularly those supporting floristically diverse heathlands and/or grasslands². These include vegetated dune systems and sandy eucalypt woodlands.

Northern Hopping-mice are gregarious and nocturnal. Individuals construct elaborate communally used burrow systems, whose vertical entrances may be obscured by a thin layer of sand⁴⁻⁵. The species forages entirely on the ground, feeding mainly on seeds but also other vegetative material and invertebrates.

The Northern Hopping-mouse is not readily live trapped during surveys. Fortunately, it can be readily detected by the characteristic spoil heaps near its burrow systems and camera traps⁶.

Threatening processes

Threats to the Northern Hopping-mouse are poorly understood. It is plausible that there are increased numbers of feral Cats *Felis catus* across much of its range, and that the species is being suppressed from predation by Cats. Fire regimes have changed across its range, notably to a higher incidence of extensive hot fires in the late dry season, with a consequent reduction in floristic diversity. This may be detrimental to the species, although such an affect has not yet been established.

Mineral deposits occur under habitat known to be occupied by Northern Hopping-mice on Groote Eylandt and possibly on the adjacent mainland. Mining operations have destroyed some habitat of the species and mining exploration and expansion is planned for some areas of known habitat. Whether mining areas can be rehabilitated to a condition that can once again support the Northern Hopping-mouse is unknown.

Conservation objectives and management

A national recovery plan for the Northern Hopping-mouse was prepared in 2004¹. The main research priorities identified in this plan are to: i) better define the distribution and status of the species, particularly on mainland NT; ii) assess the impacts of a range of putative threatening processes; and iii) trial appropriate rehabilitation of mined land for reintroduction of Northern Hopping-mice.

References

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- ³ Johnson, D.H. (1964). Mammals of the Arnhem Land expedition, in: Specht, R.L. (Ed.). Records of the American-Australian Scientific Expedition to Arnhem Land. Volume 4. Zoology, pp. 427-516. Melbourne University Press, Melbourne.
- ⁴ Diете R.L., Meek, P.D., Dickman, C.R., Leung, L.K.P., 2014. Burrowing behaviour of the northern hopping-mouse (*Notomys aquilo*): field observations. Aust. Mammal. 36(2): 242–246.
- ⁵ Diете, R.L., Adamczyk, S.M., Meek, P.D., Dickman, C.R., Leung, L.K.P., 2015. Burrowing behaviour of the delicate mouse (*Pseudomys delicatulus*) and the management implications for a threatened sympatric rodent (*Notomys aquilo*). Aust. Mammal. 37(2): 260–263.
- ⁶ Diете, R.L., Meek, P.D., Dixon, K.M., Dickman, C.R., Leung, L.K.P., 2015. Best bait for your buck: bait preference for camera trapping north Australian mammals. Aust. J. Zool. 63(6): 376–382.
- ⁷ Diете, R.L., Meek, P.D., Dickman, C.R., Leung, L.K., 2016. Ecology and conservation of the Northern Hopping-mouse (*Notomys aquilo*). Aust. J. Zool. 64, 21–32.