

Threatened Species of the Northern Territory

NORTHERN HOPPING-MOUSE

Notomys aquilo

Conservation status

Australia: Vulnerable

Northern Territory: Vulnerable



Photo: S. Ward

Description

The northern hopping-mouse is a small (25-50g) rodent of unmistakable appearance within its range. It has an extremely long tail (around 140-150 per cent head-body length) tipped with a tuft of longer dark hairs, large ears and eyes, and very long (35-40mm) narrow hind-feet. It is sandy-brown above and white below.

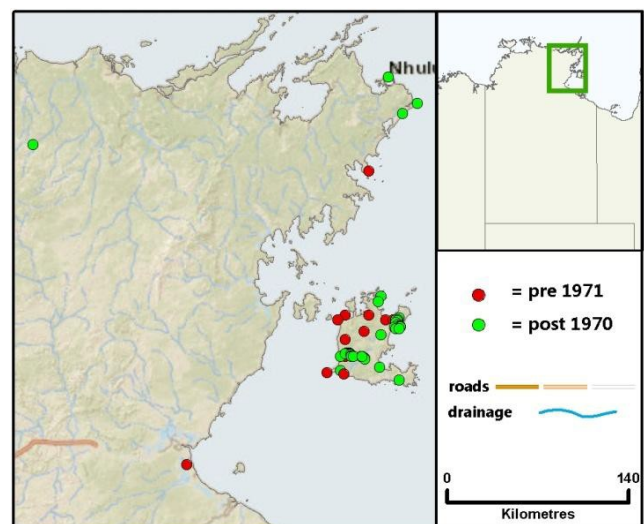
It is the only hopping-mouse in the Top End of the Northern Territory (NT). The spinifex hopping mouse *N. alexis* extends north to the Barkly Tableland, and is generally of similar morphology.

Distribution

There are remarkably few documented records of the northern hopping-mouse (Woinarski et al. 1999; Woinarski 2004). In the NT, it is known from Groote Eylandt and coastal north-eastern Arnhem Land, with unvouchered records from a few hundred kilometres further south, west and inland; and one specimen from inland central Arnhem Land (Dixon and Huxley 1985; Woinarski et al. 1999). Beyond the NT, it has also been recorded from Cape York Peninsula (one specimen with an imprecise locality record from the last half of the nineteenth century).

Conservation reserves where reported:

Anindilyakwa (Groote Eylandt) Indigenous Protected Area and Nanydjaka (Cape Arnhem) Indigenous Protected Area.



Known locations of the northern hopping-mouse

Ecology

The northern hopping-mouse is largely restricted to sandy substrates, particularly those supporting floristically diverse heathlands and/or grasslands (Woinarski et al. 1999). This includes both vegetated dune systems and sandy eucalypt woodlands. It constructs elaborate communally-used burrow systems, whose vertical entrances may be obscured by a thin layer of sand

(Johnson 1964; Dixon and Huxley 1985). It is active at night, and it forages entirely on the ground. Its diet comprises mainly seeds, but also some other vegetative material and invertebrates. The species appears to be trap-shy and may be most readily detected by characteristic spoil heaps near its burrow systems.

Conservation assessment

Conservation assessment is hampered by the lack of precise information on range, population size and trends, to such an extent that it may qualify best as Data Deficient. However, in the NT, it can be assigned the status of **Vulnerable** (under criteria B2ab) based on:

- area of occupancy estimated to be <2 000 km²;
- severely fragmented or known to exist at no more than ten locations; and
- continuing decline, observed, inferred or projected.

This assignment rests on a presumption that:

- only a small proportion of the Top End sandsheet environments is suitable for (and/or occupied by) the species;
- that feral cats may be increasing predation levels; and
- that a range of factors (including spread of weeds, changed fire regimes, grazing by domestic and feral stock, and mining) are operating to reduce habitat quality.

Threatening processes

There is no detailed information on threatening processes. It is plausible that there are increased numbers of feral cats across much of its range, and that these are affecting population numbers. Fire regimes have changed across its range, notably to a

higher incidence of extensive hot late Dry season fires, with consequent reduction in floristic diversity. This may be to the detriment of this species, although such a link 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 NT mainland. Mining operations have destroyed some habitat of the species and mining exploration and expansion is planned for some areas of known habitat. Our ability to rehabilitate mining areas to a condition that can once again support hopping-mouse populations is unknown.

Conservation objectives and management

There is a national recovery plan for this species (Woinarski 2004). The main research priorities are to:

- i. better define the distribution and status of this species, particularly on mainland NT;
- ii. to assess the impacts of a range of putative threatening processes; and
- iii. trial appropriate rehabilitation of mined land for reintroduction of northern hopping-mice.

Such information is needed before management prescriptions can be formulated appropriately.

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References

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