

THREATENED SPECIES OF THE NORTHERN TERRITORY



CENTRAL ROCK-RAT

Zyomys pedunculatus

Conservation status

Australia: Endangered.

Northern Territory: Endangered.

Description

The central rock-rat is a medium-sized rodent with a body mass of 70-120 g. Adults are stocky in appearance and have a distinctive 'Roman nose'. It has thick and soft fur that is yellowish-brown on the upperbody and cream or white below. The tail length is equal to the head-body length. The tail is thick and well-furred.



Central rock-rat.

Distribution

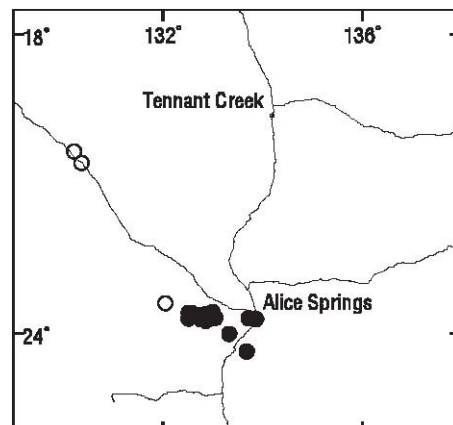
The central rock-rat is endemic to the southern Northern Territory. Prior to 1960, specimens were taken at Illamurta (James Range) and Alice Springs during the 1890s, Hugh Creek in 1935, Napperby Hills in 1950, The Granites (Tanami Desert) in 1952, Davenport Range in 1953 and at Haast's Bluff settlement (West MacDonnell Ranges) in 1960 (Parker 1973; Wurst 1995). Cave deposits show that the species once occurred widely across central Western Australia and the Northern Territory (Baynes and Johnson 1996).

No records were obtained between 1970 and 1995 and the species was

presumed to be extinct (Wurst 1990). However, it was rediscovered in the MacDonnell Ranges in 1996 and was recorded at 14 sites in the MacDonnell Ranges west of Alice Springs between 1996 and 2002. All but one of the sites is within West MacDonnell National Park; the other is on Milton Park pastoral lease. There have been no records of the species anywhere within its range since 2002. The disappearance of the central rock-rat occurred at the same time as populations of other arid rodents declined dramatically and followed massive wildfires in the MacDonnell Ranges from April to October 2002.

Conservation reserves where reported:

West MacDonnell National Park (it formerly occurred in what is now Uluru Kata Tjuta National Park).



Known locations of the central rock-rat.
○ = pre 1970; ● = post 1970.

Ecology

At Ormiston Gorge in the West MacDonnell National Park, the central rock-rat occupies a range of habitats including tussock and hummock grasslands and low open woodland;



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and that it occurs on ridge tops, cliffs, scree slopes, hills and valley floors.

The species is primarily granivorous (Nano *et al.* 2003). Seeds (1-10 mm in size) of shrubs, forbs and grasses are the main component of the diet with leaf material of secondary importance. Plant stems and insects are both a minor component of the diet. Winter seed consumption was lower than that in summer. The majority of the plant species identified in the diet are regarded as fire-encouraged rather than fire-sensitive species. The most commonly consumed seeds were from *Sida* spp., *Glycine canescens* and *Solanum* spp. (Nano *et al.* 2003).

Conservation assessment

Conservation categorisation is difficult because the central rock-rat is similar to other arid zone rodents in undergoing dramatic population fluctuations in response to climatic conditions. For example, the species was the most frequently trapped small mammal at some sites around Ormiston Gorge in 2000 and 2001 although it was not recorded there during 1991-1993 despite over 20,000 trap-nights of effort and has not been trapped since 2002.

The species qualifies as **Endangered** (under criteria

B1ac(i,ii,iii,iv)+2ac(i,ii,iii,iv) based on:

- extent of occurrence <5000 km²;
- area of occupancy <500 km²;
- severely fragmented; and
- extreme fluctuations.

Threatening processes

No definite threatening processes have been identified for the central rock-rat (Cole 2000). However, among the potential threatening processes are predation by dingoes, foxes and cats; inappropriate fire regimes (resulting in large uncontrolled wildfires); and habitat degradation caused by grazing by feral herbivores.

Conservation objectives and management

A National Recovery Plan for central rock-rats was established in 2000 (Cole 2000).

The only captive population of the species is held at the Alice Springs Desert Park.

Management priorities are:

- (i) to locate refuge populations of the central-rock rat during periods of low population abundance;
- (ii) develop sound conservation management practices for central rock-rats to ensure that wild populations are conserved in both number and extent; and
- (iii) to continue effective husbandry of the captive population so it can act as a buffer against declines in the wild population.

Compiled by

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References

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