

THREATENED SPECIES OF THE NORTHERN TERRITORY

LONG-TAILED DUNNART *Sminthopsis longicaudata*



Conservation status

Australia: Not Listed.

Northern Territory: Vulnerable.

Description

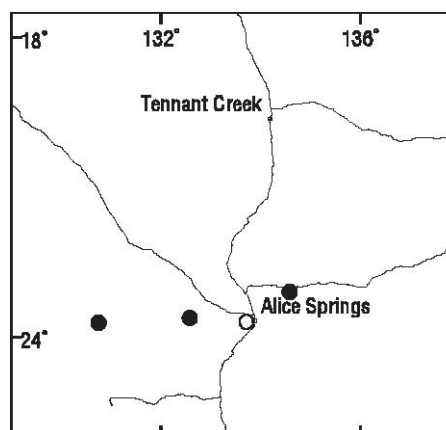
The long-tailed dunnart is a small carnivorous marsupial with a body mass of 15-20 g. Immediately identifiable by its long tail that is twice the length of the head-body. The tail ends in a tuft of long hairs. The upperbody is grey and the ventral surface is pale cream to white. The legs and feet are white and the feet have striated pads.

Distribution

The long-tailed dunnart was first collected in the Northern Territory in 1895, although the precise locality is uncertain. The species was not recorded in the Territory again until 1993 and it has been recorded since at only six sites in the West MacDonnell National Park between Serpentine Gorge and Mt Sonder (Gibson and Cole 1996). Bone material has been located in a cave at Simpson's Gap (Baynes and Johnson 1996). Outside the Northern Territory it occurs in the Pilbara, Murchinson, North-eastern Goldfields, Ashburton and Gibson Desert regions of Western Australia.

Conservation reserves where reported:

West MacDonnell National Park.



Known locations of the long-tailed dunnart.
o = pre 1970; • = post 1970

Ecology

The long-tailed dunnart is a specialist rock-dwelling species (Freeland *et al.* 1988). All sites it is known to frequent are within rugged rocky landscapes that support a low open woodland or shrubland of Acacias (especially Mulga) with an understorey of spinifex hummocks, and (occasionally) also perennial grasses and cassias. The species is nocturnal and it feeds on a range of invertebrates including beetles, ants, cockroaches and spiders (Burbidge *et al.* 1995). Females in captivity give birth to up to five young between October and December (Woolley and Valente 1986).

Conservation assessment

The size of the long-tailed dunnart population in the Northern Territory is not known. However, the species has been recorded from only a small area within West MacDonnell National Park despite widespread trapping in the MacDonnell Ranges bioregion. Further, it appears to be very rare. Only six individuals have been captured in traps despite 49 254 Elliott



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trap nights and 701 pit trap nights within its area of occurrence. Because the species is a rock-dwelling specialist, the only other region where it may occur in the arid Northern Territory is the Central Ranges bioregion.

Conservation categorisation is problematical because of a lack of information on population trends. However, the species qualifies as **Vulnerable** in the Northern Territory (under criteria D1+2) based on:

- population size estimated at <1000 mature individuals; and
- a very restricted area of occupancy such that it is prone to the effects of human activities or stochastic events.

Threatening processes

Available information on the basic biology and distribution of the long-tailed dunnart is limited such that it is not possible to identify with certainty any threatening processes at this stage. Potential threatening processes could be inappropriate fire regimes and habitat modification as a result of the activities of introduced herbivores (especially cattle and horses), invasion by buffel grass and predation by cats and foxes.

Conservation objectives and management

There is no existing management program for the wild population of this species in the Northern Territory. Three monitoring sites, involving permanent pitfall traps, were established in the vicinity of Ormiston Gorge-Mt Sonder in late 2004. These sites were set-up in locations where the species had been previously trapped. These sites will be regularly trapped by Park Management staff based at Ormiston Gorge.

Management priorities are:

- (i) clarify its distribution in the western portion of the West MacDonnell

National Park and map availability of suitable habitat; and
(ii) estimate total population size in the West MacDonnell National Park.

Compiled by

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References

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