

THREATENED SPECIES OF THE NORTHERN TERRITORY



ARNHEM LEAF-NOSED BAT DIADEM LEAF-NOSED BAT *Hipposideros (diadema) inornata*

Conservation status

Australia: Not listed.

Northern Territory: Vulnerable

Description

The Arnhem leaf-nosed bat is a moderately large (30 g) insectivorous bat. It is pale brown above and slightly paler on the belly. It has large, acutely pointed ears and a very well-developed nose-leaf. There are no similar species in the Northern Territory.

This bat is currently considered to be a very distinctive subspecies of a variable (polymorphic) species that ranges from the Asian mainland through to the Solomon Islands, and includes a larger subspecies *H. d. reginae* from north-eastern Queensland. However, its taxonomic status is under revision and the NT population may be sufficiently distinctive to warrant elevation to species rank.



Arnhem leaf-nosed bat (Photo: S. Churchill)

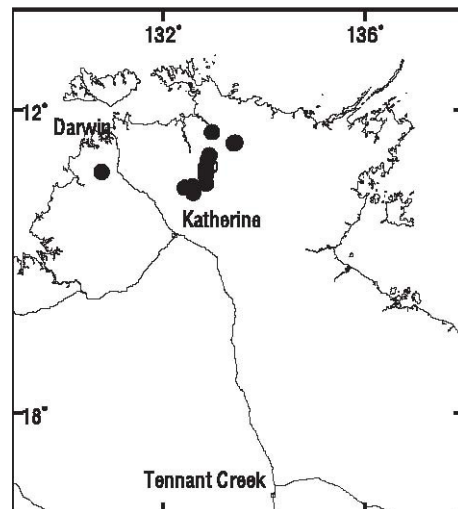
Distribution

The Arnhem leaf-nosed bat was first reported as recently as 1969 (McKean 1970) and has been recorded only from a few locations in the western

Arnhem Land sandstone massif (Deaf Adder Gorge and upper South Alligator River area) and from one site (Tolmer Falls) in Litchfield National Park (McKean and Hertog 1979).

Conservation reserves where reported:

Kakadu National Park, Litchfield National Park (however, it has not been recorded from Litchfield since 1983: Churchill 1998).



Known locations of the Arnhem leaf-nosed bat.

o = pre 1970; • = post 1970.

Ecology

This bat roosts in caves or abandoned mine adits in cool drafty areas, close to water (Churchill 1998; Corbett and Richards 2002). Little is known of its foraging habitat or diet, but it has been reported foraging in riparian areas and in eucalypt tall open forests. Its diet includes beetles, moths, cockroaches and leaf-hoppers.



Northern Territory Government

Department of Natural Resources, Environment and the Arts

Conservation assessment

This bat appears to have a very restricted distribution (although large areas of the rugged western Arnhem Land escarpment have not been sampled), fairly narrow habitat (roost-site) requirements, is probably highly sensitive to disturbance, and has probably disappeared from one of its few known sites over the last two decades.

The species fits **Vulnerable** (under criteria B2ab(i,ii,iii,iv,v)) based on:

- an area of occupancy estimated to be <2000 km²;
- severely fragmented or known to exist at no more than 10 locations; and
- a continuing decline, observed, inferred or projected.

Threatening processes

The disappearance of the population at Litchfield National Park may have been due to disturbance from humans visiting roosting caves (Corbett and Richards 2001). At this site, this threat has now been ameliorated. The known sites in western Arnhem Land are generally remote and very rarely visited.

Conservation objectives and management

Research priorities are to:

- (i) survey to determine whether this bat still occurs within Litchfield National Park;
- (ii) undertake a specific study that aims to better determine the species' distribution, abundance, habitat requirements and threats.

Management priorities are to:

- (i) maintain controls over visitation to sites known to be used for roosting and breeding. Such controls are currently in place in both National Parks from which it is known.
- (ii) establish a non-intrusive monitoring program in at least one site.

Compiled by

John Woinarski
Damian Milne
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References

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