

THREATENED SPECIES OF THE NORTHERN TERRITORY



BUTLER'S DUNNART

Sminthopsis butleri

Conservation status

Australia: Vulnerable.

Northern Territory: Vulnerable.

Description

Butler's dunnart is a small (about 15 g) dunnart ("marsupial mouse"), distinguished from other dunnarts of the Top End by a combination of lack of rufous markings on the face, relatively small size, and the patterning on the soles of the hindfeet (relatively hairy, with the interdigital pads fused at the base and with conspicuously enlarged unstriated apical granules) (van Dyck *et al.* 1994).

When first described (in 1979) this species was considered to extend to Cape York Peninsula and New Guinea, and hence named as the "carpentarian dunnart". Subsequently, specimens from those areas have been split off, as *S. archeri* (the chestnut dunnart).



Butler's Dunnart (Photo K Brennan & D. Milne)

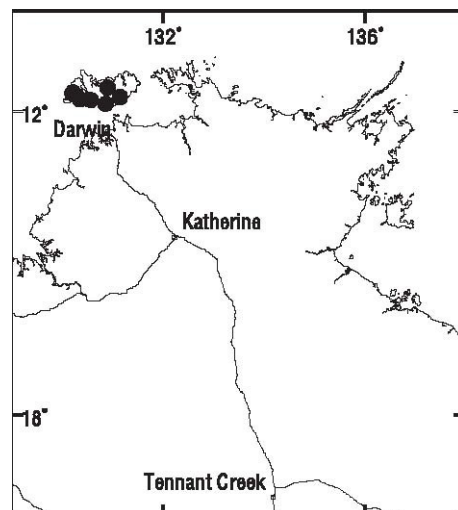
Distribution

There are remarkably few records of Butler's Dunnart. It was described from three specimens collected at Kalumburu (north Kimberley) between

1965 and 1966. It has not been recorded from Western Australia since. Subsequently, seven individuals have been caught from Bathurst and Melville Islands, and a previously-misidentified record from Melville Island in 1913 has been re-assigned to this species (Woinarski *et al.* 1996, 2003).

Conservation reserves where reported:

None.



Known locations of the Butler's dunnart.

• = post 1970

Ecology

Very little is known of the ecology of this species. The few records are associated with a range of habitats (Woinarski *et al.* 1996, 2003; Woinarski 2004), including eucalypt open forest (dominated by *Eucalyptus tetradonta* and *E. miniata*), *Melaleuca* woodland, and "blacksoil sandplain ... heavily vegetated with eucalypt and grass" (Archer 1979). It is terrestrial, and shelters under logs and other cover.



Northern Territory Government

Department of Natural Resources, Environment and the Arts

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As with other dunnarts, the diet of this species probably comprises invertebrates, and possibly some small vertebrates.

Conservation assessment

The status of Butler's dunnart is difficult to evaluate, given the few records and lack of any information on trends in abundance. It can be reasonably inferred that it is uncommon in its only known Northern Territory location, the Tiwi Islands. These have now been subject to a substantial biodiversity survey effort since 1991, but this sampling has produced only seven individuals (with low captures possibly also influenced by trap-shyness). This population can be considered to be likely to decline based on loss of large areas of suitable habitat (300-1000 km² from a total Tiwi Islands area of about 7400 km²) associated with a forestry plantation project. It may also decline with increasing abundance of feral cats on the Tiwi Islands.

Consequently, Butler's dunnart fits the status of **Vulnerable** (under criteria B1ab) based on:

- extent of occurrence estimated to be <20,000 km²;
- severely fragmented or known to exist at no more than 10 locations; and
- continuing decline, observed, inferred or projected.

Threatening processes

The immediate threat to the population is the loss of large areas of suitable habitat on Melville Island because of vegetation clearance for plantation forestry.

Butler's dunnart may also be affected by predation from feral cats, and vegetation change associated with altered fire regimes, weeds and/or feral animals.

Conservation objectives and management

A recovery plan for this species (Woinarski 2004) has recently been developed, and many of the proposed actions are being implemented jointly rangers and scientists from the Department of Natural Resources Environment and the Arts.

Research priorities are to:

- (i) undertake sampling to more precisely define the range and status;
- (ii) undertake a specific study to provide more information on the ecological requirements of, and threatening factors affecting, this species.

Management priorities are to:

- (i) ensure the retention of sufficient areas of preferred habitat on the Tiwi Islands, especially around the few sites of known occurrence.

Compiled by

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References

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