

Threatened Species of the Northern Territory

BEDNALL'S LAND SNAIL

Sinumelon bednalli

Conservation status

Australia: Endangered

Northern Territory: Near Threatened



Photo: C.Palmer

Description

Sinumelon bednalli is a large (shell diameter 20-26 mm) greenish-yellow camaenid land snail, with a weak reddish spiral colour band. The apex and spire are usually strongly and evenly elevated and there are 4-5 whorls (Solem 1993).

Distribution

This species is endemic to the Northern Territory (NT). It has been collected at several sites in the ranges of central Australia, from Wattarka National Park in the west to Trepkina Gorge, 50 km east of Alice Springs. It is likely that other populations in the southern NT remain to be discovered (C. Palmer *pers. comm.*).

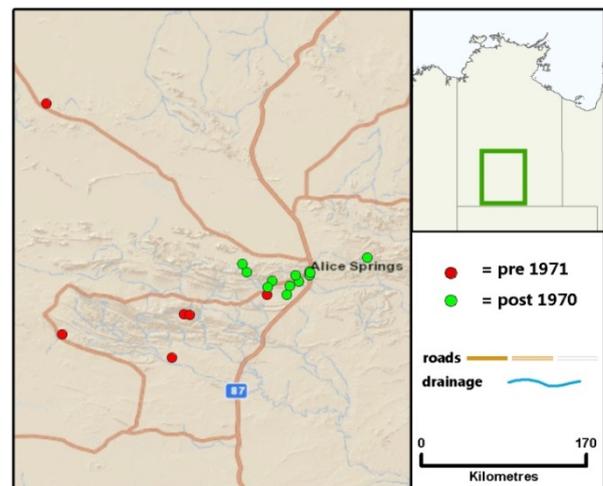
Conservation reserves where reported:

Alice Springs Telegraph Station Historical Reserve, Owen Springs Reserve, Trepkina Gorge Nature Park, Watarrka National Park and West MacDonnell National Park.

Ecology

The species is restricted to areas around fig trees. Adults aestivate in loose litter under the trees and are only active after heavy rain (V. Kessner *pers. comm.*). This makes surveys for this species (and most other snails in central

Australia) very season and weather dependent.



Known locations of *Sinumelon bednalli*.

Conservation assessment

Sinumelon bednalli was previously assessed as Critically Endangered as records were confined to a very small number of locations and populations were thought to be declining. Subsequently, studies by C. Palmer (*pers. comm.*) have shown the species to be much more widespread and population counts at the best-known site provide no evidence of decline. Many sites carry heavy infestations of Buffel Grass, so there remains a clear threat to the species from fires.

The conservation status of this species approaches Vulnerable (under criterion B2b(iii)) based on:

- Area of occupancy <2000 km²; and
- Continuing decline in the quality of habitat.

However the species is known from more than ten locations, is not severely fragmented and does not experience extreme fluctuations in numbers or distribution. As a consequence, the species is listed in the NT as **Near Threatened**.

Threatening processes

Infestation of the habitat of this species by invasive grasses such as Buffel and Couch Grasses is a problem throughout its distribution. At some locations Buffel Grass grows under and around the fig trees and contributes up to 70 or 80 percent of the groundcover. Such infestation leads to higher fuel loads, resulting in more intense and widespread fires in central Australia. In some cases the fig trees show signs of fire damage. Areas close to Alice Springs are also under pressure from urban expansion and greater frequency of fires (C. Palmer *pers. comm.*; V. Kessner *pers. comm.*).

Conservation objectives and management

There are no existing management programs for land snail species in the NT.

Research priorities are:

- i. to conduct further surveys to determine whether populations occur elsewhere;
- ii. to identify specific threats to all of the known populations; and
- iii. continue monitoring at best-known locations

Management priorities are:

- i. to protect the habitat from urban expansion; and
- ii. to better safeguard the known populations through encouragement of appropriate fire regimes.

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[updated April 2012]

References

Solem, A. (1993). Camaenid land snails from Western and central Australia (Mollusca: Pulmonata: Camaenidae). VI Taxa from the red centre. *Records of the Western Australian Museum Supplement* 43, 983-1459.