FACT SHEET

PALYOORA OR PLAINS RAT
Pseudomys australis

Text by Harald Ehmann and Michelle Watson.

The Plains Rat was formerly widely distributed across inland Australia, but now is essentially restricted to cracking clay habitats in northern South Australia. Like many other arid zone mammals, Plains Rat populations can rapidly increase after good rainfall, only to decline dramatically within months as conditions deteriorate. Plains Rats dig complex, shallow burrow systems with surface runways that connect adjoining burrows. Plains Rat acquire all of their water needs from their food which includes seeds, leaves (especially chenopods) and insects.

DETECTION AND IDENTIFICATION

Plains Rats are nocturnal and are most often seen in headlights running at high speed across tracks and away from vehicles.
The adults are relatively large reaching a weight of up to 85 grams (about one and a half times bigger than a House Mouse), and are brownish-grey to grey with a silvery sheen on the back and sides. The undersides are whitish and the head, ears and eyes are relatively large. They grow to a head and body length of 14 cm. The tail which is plain and brushless can be up to 12 cm long.

Plains Rats are considerably larger than any other rodents that may occupy the same habitat. Although they have an impressive repertoire of sounds, including distress calls chirping and squeals when fearful, they are generally placid and quiet when handled.

HABITAT AND DISTRIBUTION

Plains Rats are found on stony (gibber) plains and mild slopes that have gilgais. The vegetation is predominantly chenopod shrubs as well as ephemeral plants that require good rains to flourish. In very good years they even occur on adjoining sandy plains. They also occur on gypseous clay soils with deep cracks and sparse perennial vegetation. The Moon Plain east of Coober Pedy is one such area. Parts of this Plain and some low-lying gilgais and watercourses of gibber plains may provide core refuge areas during poor conditions.

Plains Rats sometimes form extensive burrow systems in cracking clay soils and gilgais on gibber plains.
Photograph by Michelle Watson.

Adult male Plains Rat. Photograph by Peter Canty.

CONTACT US

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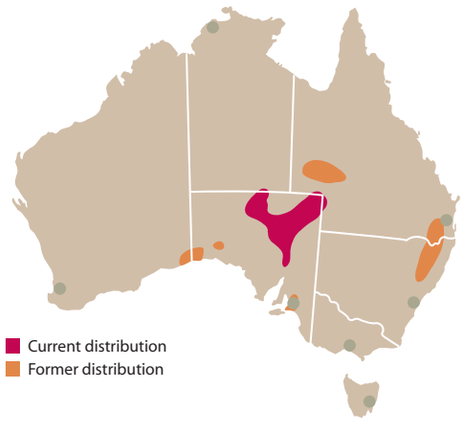
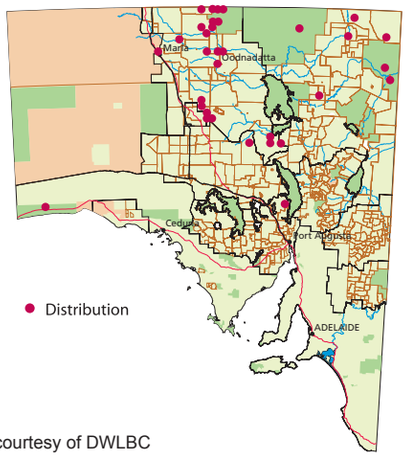
PLAINS RAT DISTRIBUTION ACROSS AUSTRALIA



KNOWN DISTRIBUTION IN SOUTH AUSTRALIA



Map courtesy of DWLBC

POTENTIAL THREATS TO PLAINS RATS

The most significant concern for Plains Rats is that the species' total distribution has been significantly reduced since European colonization, existing now in only small patches of suitable habitat. Although they may become super-abundant after rainfall events, extensive populations can decline and become almost undetectable within months. Predators (including foxes and raptors), extreme weather, and declining resource availability may contribute to the decline of these populations. Grazing stock and introduced herbivores may damage burrow systems and compact the soft cracking clays where Plains Rats live.

CURRENT RESEARCH

Ongoing research is underway to further investigate the processes involved in the population fluctuations of this species, and to identify the core refuge areas in which the species survives during poor conditions. How populations can and do recover, and the impact of introduced predators and competitors (including stock) is also of particular interest.

HOW CAN YOU HELP?

If you have seen a Plains Rat within or beyond the locations shown on the distribution maps please let us know. Please note the location (a GPS or map reference would be most helpful) to assist the relocation of the site. A description of the habitat would also be helpful. We will follow up all possible sightings as part of this study.

HOW CAN YOU CONTACT US?

To report your observation or for further information about Plains Rats or this study please contact:

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RESOURCES

Ehmann, H. (2006). South Australian Rangelands and Aboriginal Lands Wildlife Management Manual: a resource handbook. Department of Water, Land and Biodiversity Conservation, South Australia.

Brandle, R. and Moseby, K. E. (1999). Comparative ecology of two populations of Pseudomys australis in northern South Australia. Wildlife Research 26: 541-564.

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