Shark Bay Mouse (Djoongari)
Pseudomys fieldi (Waite, 1896)

Size
Head and body length
85–115 (100) mm

Tail length
115–125 (120) mm

Weight
30–61 (45) grams

Subspecies
None recognised.

Photo: Babs & Bert Wells/Department of Conservation and Land Management

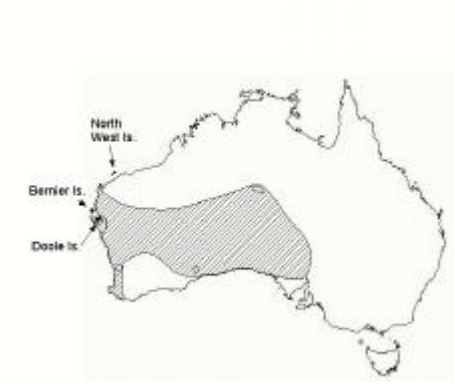
Description

Robust mouse with a particularly long and shaggy coat. The dorsal fur is a mixture of pale yellow-fawn underfur and dark guard hairs, giving a grizzly appearance. The ventral hairs and feet are white. The tail is longer than the head and body and is grey and white with a dark tuft of hairs at the end.

Other common names

Shaggy mouse, shaggy-haired mouse and the Alice Springs mouse. Djoongari is its indigineous (Pintupi/Luritja) name.

Distribution



Key To Map: Islands = present distribution; Grey = historic (> 30 years);

Hatched = Late-Holocene sub-fossil

The Shark Bay mouse was once distributed from Exmouth Gulf to the south coast of Western Australia, through the Murchison region to Alice Springs and south to the Nullabor Plain, with records also from Dirk Hartog Island and Faure Island in Shark Bay. It was last recorded on the mainland in 1895 near Alice Springs. Surveys for additional populations on the mainland in 1989 around the Shark Bay area failed to detect the species.

The Shark Bay mouse now only occurs on Bernier Island in Shark Bay. Populations have also been translocated to Doole Island (Exmouth Gulf) and North West Island (Montebello Islands).

Habitat

On Bernier Island, the Shark Bay mouse inhabits coastal dune vegetation dominated by *Spinifex longifolius* and *Olearia axillaris*. The species occurs in most coastal sandy areas around the island. Occasionally it can be found in the *Trioda/Acacia* heath in the central part of the island. Translocated mice on North West Island are using scree slopes for shelter.

Behaviour

The Shark Bay mouse is known to dig tunnels and runways in heaps of seagrass piled up on beaches during winter storms and use above ground nests as day refuges - they do not appear to use burrows as frequently as other species of *Pseudomys*. Animals translocated to Doole Island used hollows for day refuges above the water level in mangrove trees as well as sites among rocks and under *Triodia*.

Diet

Little is known of the diet of the Shark Bay mouse. Limited records indicate their diet consists of flowers and leaves, insects, spiders and fungi.

Breeding

On Bernier Island, breeding occurs in winter and spring though it is possible that breeding may occur throughout the year. A litter of three to four young is produced after a gestation period of approximately 28 days. The young attach to the mothers' teats and are dragged around beneath her when she is on the move. By 30 days, they are weaned and independent of their mother and enter the population during November to March. Individuals on Bernier Island are known to live for at least two years.

Breeding observed in captivity showed that the male was sharing the nest box with the mother and young when they were four weeks old. When the mother was absent he tended to behave protectively towards the young.

Threatening processes

Reasons for decline are not well known, some suggestions include grazing and trampling of vegetation by stock and rabbits and predation by introduced predators (particularly by feral cats which may have become established prior to European settlement from shipwrecks on the west coast).

Conservation status

2000 IUCN Red List of Threatened Species	Critically Endangered
Western Australian Wildlife Conservation Act	Threatened
Environment Protection and Biodiversity Conservation Act	Threatened (Vulnerable)

Management in Western Australia

- Research into abundance and distribution on Bernier Island.
- Control of introduced predators and herbivores on Heirisson Prong and Peron Peninsula.
- Translocations to Heirisson Prong and Peron Peninsula (Shark Bay) and monitor populations translocated to North West Island and Doole Island.
- Monitor populations on Doole Island (Exmouth Gulf) and North West Island (Montebello Islands)

Other interesting facts

- In 1998, scientific research confirmed that the Alice Springs mouse, which has not been sighted since 1895, was the same species as the endangered Shark Bay mouse.

Selected references

Watts, C. H. S. and Aslin, H. J. (1981). The rodents of Australia. Angus and Robertson, Sydney.

Morris, K.D. and Robinson, A.C. (1995). Shark Bay Mouse. In R. Strahan (Ed.) The Mammals of Australia. Australian Museum and Reed Books. Chatswood, NSW.

Lee, A. K. (1995). The action plan for Australian rodents. Australian Nature Conservation Agency, Endangered Species Program Project Number 130.

Braithwaite, R.W., Morton, S.R., Burbidge, A.A. and Calaby, J.H. (1995). Australian names for Australian rodents. Australian Nature Conservation Agency in association with CSIRO Division of Wildlife and Ecology.

Website links

http://www.naturebase.net/projects/west_shield.html
http://www.perthzoo.wa.gov.au/djoongari.html
http://www.ea.gov.au/biodiversity/threatened/action/rodents/rodap3.html#Shark-Bay