



FACT SHEET

SOUTHERN MARSUPIAL MOLE *Notoryctes typhlops*

Text by Harald Ehmann and Michelle Watson.

The mysterious Southern Marsupial Mole is a unique Australian animal of immense interest. Marsupial moles spend almost all of their time underground, making capture and study of this curious mammal rare. They have been kept in captivity on only a few occasions and never for more than a few months.

IDENTIFICATION

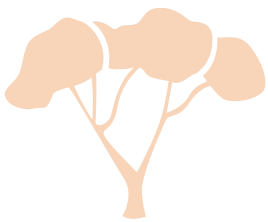
This unique and unmistakable mammal's golden fur is thick short and lustrous, it has no eyes, the ear openings are completely hidden by fur, the snout is leathery, and the finger nails are greatly enlarged to enable it to dig through the compacted sand of its preferred habitats.

Southern Marsupial Moles most likely only come to the surface when underground conditions become difficult, such as when they encounter excessively compacted sands, gravels (especially lime) or rock when burrowing, and also when oxygen levels in the sand become too depleted due to heavy rains (Ehmann 2006). In wet and crusty sand, the progress of moles just below the surface leaves a ridge of small cracked "tiles" of sand that slope equally in opposite directions like a simple roof. On dry, sandy surfaces, the "swimming" strokes of their arms and legs leave a distinctive track, with the tail dragging between.

Because of their subterranean existence, the most reliable way to detect the presence of moles in an area is to dig trenches in sandy habitats and look for the characteristic tunnels that the moles excavate as they move through the soil. The trenches need to be dug to a depth of about one metre and the walls need to be smoothed to reveal the "mole holes" that form when the back-filled sand from a mole tunnel is dislodged. The tunnels are from 15 to 60 mm in diameter and are usually circular or elliptical in shape.

HABITAT AND DISTRIBUTION

In South Australia Marsupial Moles have been recorded in the Anangu-Pitjantjatjara Lands, the Maralinga Lands, Yellabinna Regional Reserve and in the western Simpson Desert. There are also unconfirmed historical records from near Innamincka and the Tirare Desert. Within these areas, sand dunes, swales, sand plains, and some sandy inland river flats are the preferred habitats of Marsupial Moles. There is usually a reasonably complex overstorey vegetation of woodlands including mallee or Acacia shrubs with a diversity of understorey shrubs and grasses including spinifex or canegrass.



Southern Marsupial Mole. Photograph by Harald Ehmann.

Friends of Simpson volunteer Ian Jackson measures a mole hole in a trench. Photograph by Michelle Watson.



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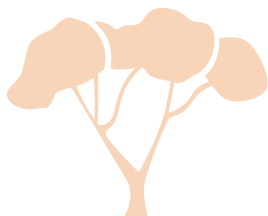


Australian Government

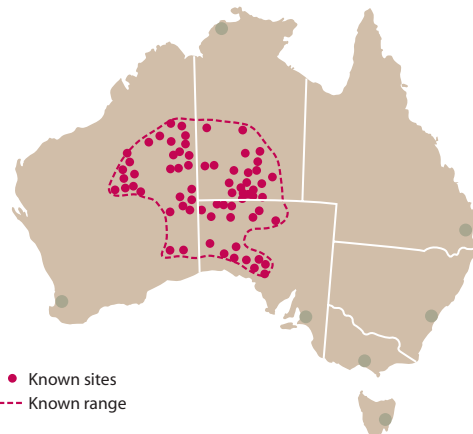
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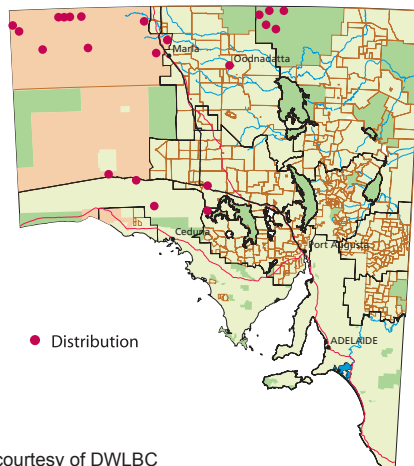
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SOUTHERN MARSUPIAL MOLE DISTRIBUTION ACROSS AUSTRALIA



KNOWN DISTRIBUTION IN SOUTH AUSTRALIA



Map courtesy of DWLBC

POTENTIAL THREATS TO THE SOUTHERN MARSUPIAL MOLE

Over the last 30 years the number of reports and findings of Moles by Aboriginal people has decreased, and this may be an indication that they are declining in some areas.

Moles tunnelling near the surface may be susceptible to predation by foxes, whose acute sense of smell enables them to locate underground prey. Even low levels of predation by foxes, cats and dingoes may lower densities of moles sufficiently to make finding a mate difficult. High concentrations of introduced herbivores in mole habitats may cause compaction and damage to mole tunnels and a reduction in the abundance of prey for moles.

CURRENT RESEARCH

Reliable methods of predictably trapping, catching or keeping Moles are yet to be developed. However, much information about the distribution and life history of Marsupial Moles has been pieced together from Aboriginal people and from a number of museum specimens collected over the last 120 years. The continued use of trench surveys to investigate the distribution of moles is also providing valuable information about this species in the sandy deserts of South Australia.

HOW CAN YOU HELP?

If you have seen a Southern Marsupial Mole or any of its tracks or tunnels 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. You can also assist by undertaking your own trench surveys following survey guidelines that can be obtained from us.

To report observations or for further information about Southern Marsupial Moles or this study please contact the South Australian Arid Lands Natural Resources Management Board 8648 5977.

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.