

# Arid Zone Monitoring Species Profile

## Pututjurru, Brush-tailed bettong, Woylie

*Bettongia penicillata*

*Pututjurru* is the Warlpiri name for this species, and we use this name here, as the Newhaven Warlpiri Rangers have been involved in a recent reintroduction of this species to the deserts.

### Language names

Karrpitji, Kurlkarri, Kurtutjarri, Maymirrka, Miripi, Pututjurru, Tjanpal, Wartayirtjalpa

National status: Endangered

IUCN Red List: Critically Endangered



*Pututjurru being released at Newhaven Wildlife Sanctuary by Newhaven Warlpiri Ranger Christine Ellis.*

### Animal Description

The Putitjurru is a small kangaroo, weighing 1-1.5 kg, with grizzled greyish-brown fur. Its tail is rufous-coloured, and has a crest of black hairs especially near the end. It can use its tail like a curly hand to carry clumps of grass back to its nest.

### Key threats

- Predation by cats and foxes
- Habitat change from too much grazing by feral herbivores (cattle, rabbits and mice)
- Wrong-way fire
- Climate change (changing rainfall, temperature, droughts)



## Habitat

Pututjurru used to live in many different sorts of habitats, from deserts to woodlands and dry forests. They shelter under grass clumps or dense bushes, making snug nests by lining them with grass and bark.



Image: Aliesha Dodson-AWC

Pututjurru's curled tail. This animal was being checked ready for release at Newhaven Wildlife Sanctuary.

## Pututjurru scat

Pututjurru scats are dark brown or black. They are shiny when fresh. You might be able to see small particles of plant material, and the odd bit of insect or invertebrate.



Image: Steve Eldridge

Pututjurru scats.

## Pututjurru tracks

Pututjurru move the same way as larger kangaroos, they either hop on their back legs, or move more slowly by alternating between the front paws and back legs, with their tails dragging on the ground.



Image: Danae Moore-AWC

Fresh tracks from a Pututjurru resting on back legs with tail drag.



Image: Danae Moore-AWC

Fresh tracks from a Pututjurru hopping on its back legs on top of its toes.



## Pututjurru diggings and nests



*Pututjurru diggings.*



*Pututjurru shelter site in spinifex.*

## Animals that might be confused with Pututjurru during survey

- Other small kangaroos

Pututjurru tracks can be confused with tracks from other small kangaroo, such as mala and burrowing bettong. Burrowing bettong tracks are very similar, however the huge burrow systems that the burrowing bettong build may help to give clues about which bettong is present. The shape of Pututjurru's scats help to tell them apart from mala, which have small cube shaped scats (see mala profile).

## Things to think about when surveying for Pututjurru

- Survey during good conditions (in the early morning is best, not too windy or straight after rain).
- Organise to do surveys at regular times every year – for example, before the wet or hot season (October) and in the early dry season or early cool time (April).
- Follow advice of experienced trackers - know how to tell tracks apart from other species before you go to survey.
- If you want to see changes over time, you will need to go back to the same areas to sample over several years. If you want to see if management actions (feral animal culling or fire) are working, you need to sample many different sites, before and after the action. You might need help from a scientist to make the sampling design strong

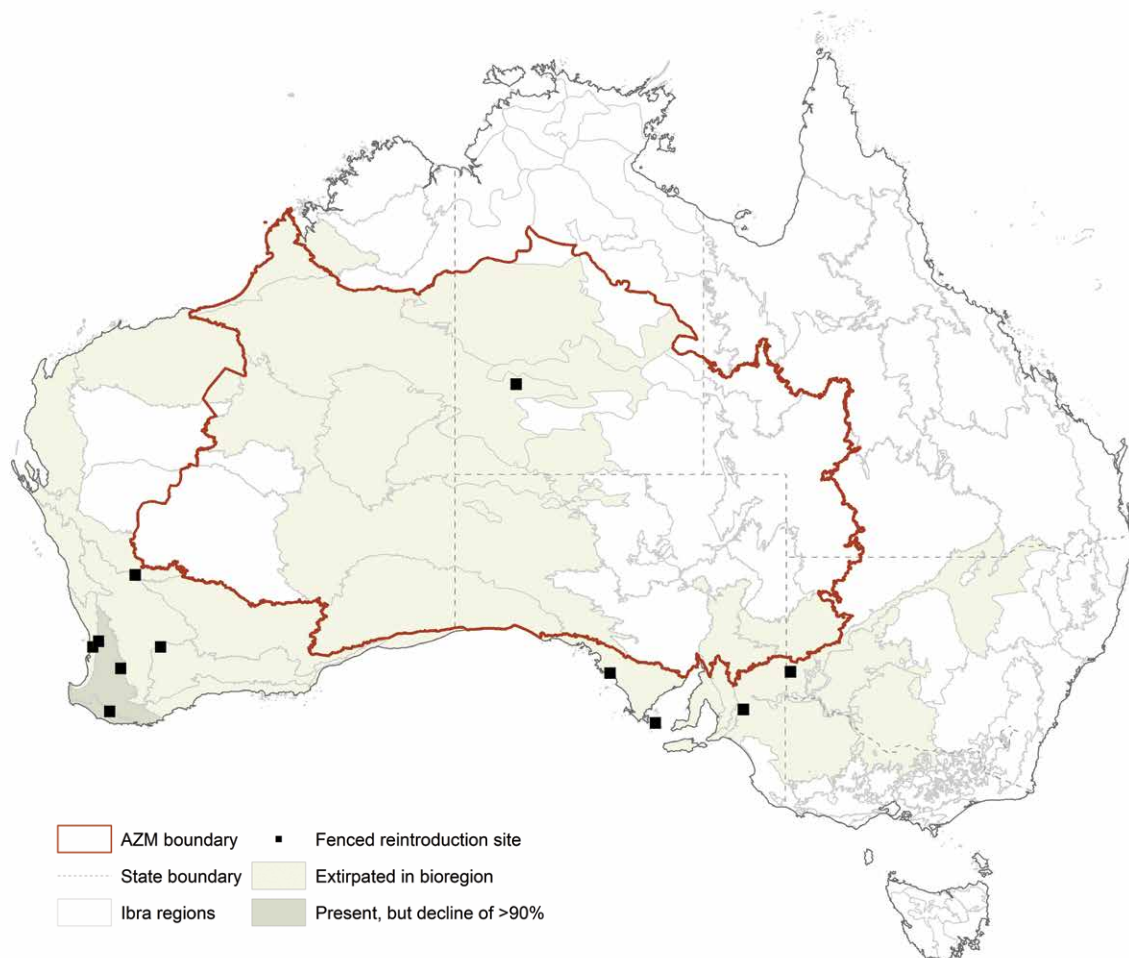


## Arid Zone Monitoring project findings

### Pututjurru distribution

Pututjurru used to be found in southwest Australia, across to central NSW, and through central Australia up to Broome. They have gone from all the drier parts of their range, mostly because of predation by foxes and cats, but hang on in southwest Australia where foxes and cats are controlled at large scales. Pututjurru have also been reintroduced to several large fenced and feral-free areas. The latest reintroduction happened at Newhaven Wildlife Sanctuary in 2021, on Ngalia Warlpiri country.

The map summarises the detections of Pututjurru in the AZM dataset. They show that Pututjurru have been recorded at Newhaven, following their reintroduction there in 2021. The grey dots show all the other sites that have surveyed since the 1980s, but where Pututjurru have never been recorded. These records were made by the Newhaven Warlpiri Rangers. Pututjurru are also found outside the AZM project area, in south-western Australia (dark shading on map). The information about the overall distribution in the map background is taken from the Mammal Action Plan<sup>1</sup>.



### Further information

Arid Zone Monitoring project:

<https://www.nespthreatenedspecies.edu.au/projects/arid-zone-monitoring-surveys-for-vertebrates-across-arid-and-semi-arid-zones>

### References

<sup>1</sup> Woinarski, J.C.Z & Burbidge, A.A. & Harrison, P.L. (2014). The Action Plan for Australian Mammals 2012. (CSIRO Publishing: Melbourne.)



National Environmental Science Programme

This project received support from the Australian Government's National Environmental Science Program.

The Arid Zone Monitoring project is a collaboration between the NESP TSR Hub and over 30 Indigenous ranger groups and Indigenous organisations, 8 NGOs and NRM groups, 5 government agencies institutions, and many individual researchers and consultants. The project has gathered track and sign data from across Australia's deserts, using it to map the distributions of desert species and their threats. The national database includes almost 50,000 species presence records from over 5300 unique sites and almost 15,000 site visits, over the period from 1982 to 2020. The project area was defined by using IBRA subregional boundaries - the project boundary captures Australia's desert subregions where track and sign-based surveys are commonly used. The project showcases the collective work carried out by all groups working across the arid zone, and lays the groundwork for creating ongoing, national-scale monitoring for desert wildlife.

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