

Arid Zone Monitoring Species Profile

Northern nailtail wallaby

Onychogalea unguifera

Language names

Jurnma, Karapulu, Kururrungu, Lunpunpa, Tyurnme, Wawanpa, Wurtuwurtu

National status: Not listed

IUCN Red List: Least concern



Image: Chris Jolly

Northern nailtail wallabies with joeys

Animal Description

Northern nailtail wallabies have a horny spur like a fingernail beneath a crest of fur at the end of the tail. No one knows what this nail is for. The northern nailtail wallaby is sandy coloured with a paler head and neck, brown flanks and a white stripe near the leg, and long ears.

Habitat

Acacia woodlands and shrublands with tussock grasses or spinifex, especially at the edges of blacksoil plains.

Key threats

- Habitat change from too much grazing by feral livestock, camels and rabbits
- Predation by cats and foxes
- Wrong-way fire (too hot, too frequent, too big)
- Climate change (less regular rainfall, high temperatures)

Things to think about when surveying for wallabies

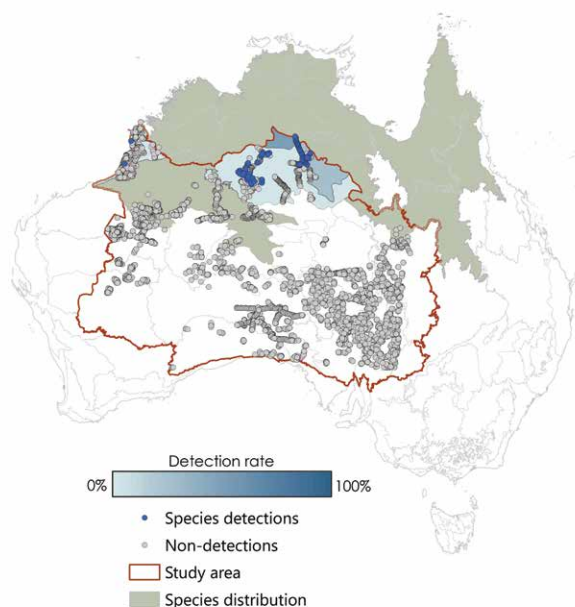
- Survey during good conditions (in the early morning is best, not too windy or straight after rain).
- Organise to do surveys at regular times every year, for example before the wet or hot season (October) and in the early dry season or cool time (April).
- Follow advice of experienced trackers - know how to tell northern nailtail wallaby tracks apart from other wallaby 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

Northern naitail wallaby distribution and detection rates

The map summarises the detections of northern naitail wallabies in the AZM dataset, and shows the average detection rate of all surveys carried out in each bioregion, since the 1980s. Northern naitail wallabies were detected where the northern deserts overlap with the species range in northern Australia. Each blue dot shows a survey site where northern naitail wallabies were recorded. The grey dots show all the other sites that were surveyed, but northern naitail wallabies were not recorded. Northern naitail wallabies were detected at less than 1% of all surveys in the AZM dataset: it was the 19th most common native mammal species to be detected.

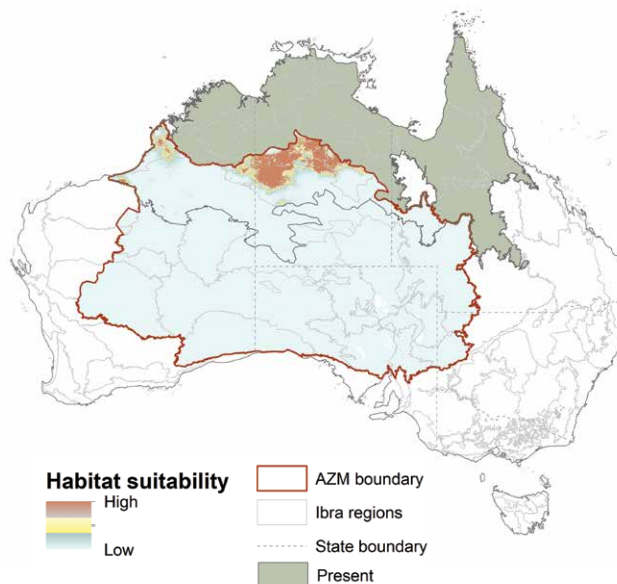
These records were made by Indigenous Ranger groups, land councils, NGOs, government agencies and university researchers. The information about the overall distribution in the map background is taken from the Mammal Action Plan¹.



Northern nail-tail wallaby habitat suitability

The habitat suitability model can tell us about where the northern naitail wallaby is most likely to be found. The analysis considered climate factors like annual, seasonal and daily temperature and rainfall; landform factors like elevation and slope; soil factors; and habitat factors like the amount of vegetation (NDVI) and fire frequency.

The model suggests that northern naitail wallabies prefer areas with a monsoonal climate, and moderate annual rainfall (>350 mm). Within the AZM project area, they are likely to be more common in the Northern Territory and parts of Dampierland in the West Kimberley, where the shading on the map is red-brown. The map only shows habitat suitability inside the AZM project boundary, but northern naitail wallabies occur further north, in the dark-shaded area of the map, and may be more common there.



The maps above show data shared by data providers with the AZM project. The data are from track and sign surveys. This method is great for detecting species that live in sandy deserts, but not as good for species that prefer rocky habitats, or species with distributions that are mostly outside the central deserts. The method also works best for larger-bodied animals with tracks that are easily identified.

It is possible that extra surveys have been carried out that have not yet been shared. If you see 'gaps' in the maps that you could fill by sharing your data, let us know.

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

¹ 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.

Cite this publication as NESP Threatened Species Recovery Hub, 2021. Arid Zone Monitoring Species Profile: Northern naitail wallaby, Project 3.2.5 findings factsheet.