

Arid Zone Monitoring Species Profile

Spectacled hare-wallaby

Lagorchestes conspicillatus

Language names

Ilerakwe, Kwarlpe, Majiri, Milparti, Ngartama, Pukalpi, Wampana

National status: Not listed

IUCN Red List: Least concern



Spectacled hare-wallaby.

Animal Description

The spectacled hare-wallaby is grey-brown with golden tips to its hairs, and an orange ring around its eyes.

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)

Habitat

The spectacled hare-wallaby lives on sand and gravelly plains, dunes, stony rises and hills with spinifex or tussock-grass, sometimes also with mulga. It builds a nest in a scrape under grass tussocks or shrubs for shelter from predators and hot daytime temperatures.



Spectacled hare-wallaby tracks in soft sand.

Things to think about when surveying for spectacled hare-wallabies

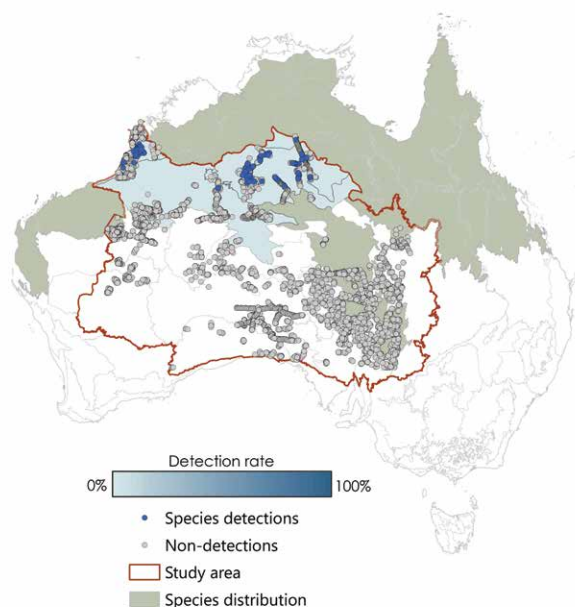
- Survey during good conditions (in the early morning is best, not too windy or straight after rain).
- Organise to do surveys at regular times every year, for example before the wet or hot season (October) and in the early dry season or cool time (April).
- Follow advice of experienced trackers - know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

Spectacled hare-wallaby distribution and detection rates

The map summarises the detections of spectacled hare-wallabies in the AZM dataset, and shows the average detection rate of all surveys carried out in each bioregion. Spectacled hare-wallabies have been detected in the northern part of the AZM project area. Each blue dot shows a survey site where spectacled hare-wallabies were recorded. The grey dots show all the other sites that were surveyed, but where spectacled hare-wallabies were not recorded. Spectacled hare-wallabies were detected at less than 1% of all surveys in the AZM dataset: they were the 20th most common native mammal species to be detected.

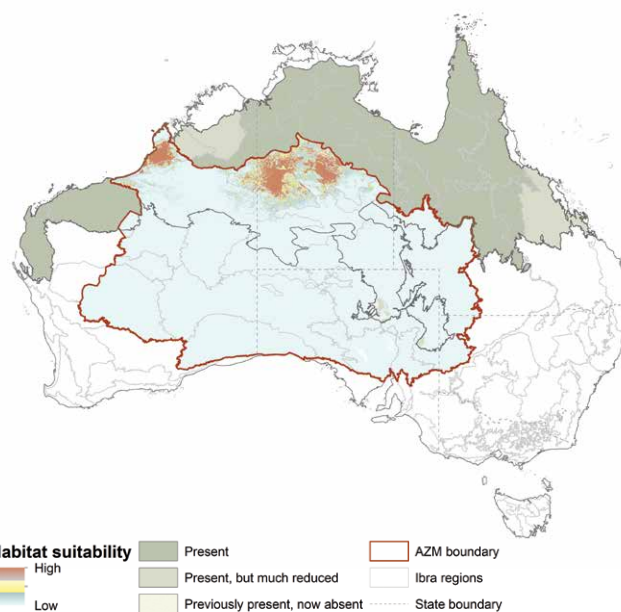
These records were made by Indigenous Ranger groups, land councils, NGOs, government agencies and university researchers. The information about the overall distribution in the map background is taken from the Mammal Action Plan¹.



Spectacled hare-wallaby habitat suitability

The habitat suitability model can tell us about where the northern Spectacled hare-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 spectacled hare-wallabies prefer northern desert areas with moderate to high rainfall (>350mm) and relatively stable temperatures. Within the AZM project area, they are likely to be more common in the Northern Territory and West Kimberley, where the shading on the map is red-brown. The map only shows habitat suitability inside the AZM project boundary, but spectacled hare-wallabies occur further north, in the dark-shaded area of the map, and may be 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.

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