

CONSERVATION

IMPROVING CONSERVATION OUTCOMES FOR A CRYPTIC GRASSLAND SKINK

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AT A GLANCE

Pygmy blue-tongue lizards (*Tiliqua adelaidensis*)

- An endangered skink endemic to South Australia's Mid North, surviving in fragmented populations within remnant grasslands with soils suitable for spider burrow construction.
- Face ongoing threats from climate change, land-use change, and habitat destruction.
- Project aims to enhance species conservation through novel detection methods, habitat restoration, and landholder engagement.



Pygmy blue-tongue lizard lives in spider burrows. (Photo: Lucy Clive)

METHODS



DETECTOR DOGS

Detector dogs were trained to detect pygmy blue-tongue lizards (PBTs), before being tested head-to-head alongside traditional human surveys.



Conservation detector dog Hettie



TRADITIONAL ENGAGEMENT

Grants helped graziers to improve grazing management infrastructure, maximising grassland production and enhancing biodiversity.

A 'goldilocks' zone of grazing pressure encourages inter-tussock spaces and avoids thatch, while maintaining ground cover. Ten properties received revegetation to enhance or reintroduce populations of iron-grass (*Lomandra* sp.). Less than 1% of the Mid North's grasslands remain. PBTs are obligate grassland dwellers, so the fate of the habitat and lizard are intrinsically linked.

This project received grant funding from the Australian Government Saving Native Species Program.



FINDINGS

Detector dogs successfully detected lizards in the field.

- Similar time to first detection for dogs and human experts.
- Experts detected lizard presence on searches with 94% accuracy, detector dogs 75% accuracy.
- Further work to refine techniques and improve detectability at low densities is being undertaken. 13% improvement in dog search accuracy already with initial refinements.

Traditional engagement garnered overwhelmingly positive responses from participating landholders regarding both improvements to grazing infrastructure and tussock restoration. Landholders initially sceptical about allowing access to their property now participating in a range of conservation and restoration programs run by the Northern and Yorke Landscape Board.



Reintroduction of tussock plants aims to improve remnant habitat.

CONCLUSION

Ongoing relationships between government, researchers and farmers breaks down barriers to the conservation of pygmy blue-tongue lizards. Comparison searches suggest detector dogs are an effective complement to human searchers. Use of detector dogs to establish PBT presence/absence at new sites is planned for spring 2025.

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