

Safeguarding the Bilby's genetic future



Common name/s: Greater Bilby

Scientific name: *Macrotis lagotis*

CONSERVATION BACKGROUND

Conservation efforts for the Greater Bilby are focused on combating the threats posed by habitat loss, introduced predators, and competition with invasive species. Due to extensive land clearing, the Bilby's natural habitat has been greatly diminished, leading to fragmented populations and reduced genetic diversity.

PROJECT AIMS

1. Examine genetic diversity within and between bilby populations, to define management units that can be used to inform future breeding strategies and translocations
2. Develop method to enable ongoing genetic management of breeding and translocation programs

KEY FINDINGS

- Reference genome produced and being written up for publication
- Population genetic data shared in real-time to end users & National Metapopulation Management Committee.
- A MassArray method has been developed and tested to assess Bilby genetics from scars.

IMPLICATIONS FOR SPECIES CONSERVATION

The population genetic data has been used to inform translocations for new population establishment & management of existing Bilby populations. The subsequent MassArray method is working well and has been used by Kiwirrkurra indigenous community in Western Australia to assess if their cultural burning practices are improving Bilby habitat & populations. Plans are now underway to build on this and undertake a national Bilby survey using scat samples collected by indigenous communities.

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