Progress Report SP 2012-035

Conservation and management of the bilby in the Pilbara

BCS Animal Science

Project Core Team

Supervising Scientist	Martin Dziminski
Data Custodian	Martin Dziminski

Project status as of Aug. 9, 2022, 2:25 p.m.

Update requested

Document endorsements and approvals as of Aug. 9, 2022, 2:25 p.m.

Project Team	granted
Program Leader	granted
Directorate	granted

Conservation and management of the bilby in the Pilbara

H Moore, F Carpenter, L Gibson

Context

The greater bilby (*Macrotis lagotis*) is listed as Vulnerable under the *Commonwealth's__ Environment Protection and Biodiversity Conservation Act 1999*. Increased threatening processes, including pressure from mining activities across the Pilbara, means that greater understanding of the distribution, abundance and ecology of the bilby is important to ensure appropriate conservation and management measures are implemented. This project will aim to increase our understanding of the bilby in the Pilbara Bioregion of Western Australia and allow for the development of a regional survey and monitoring program. The current focus is to determine the presence/absence of the bilby in the Pilbara and to establish appropriate survey and monitoring techniques, including genetic approaches, for the greater bilby.

Aims

- Improve our understanding of the distribution and demographics of bilbies in the Pilbara.
- Provide information to environmental regulators, resource development companies and contractors that will allow appropriate management to ensure the long-term persistence of the greater bilby in the Pilbara.
- Design, establish and implement a long-term monitoring program for bilbies in the Pilbara.

Progress

- Central database established through the NatureMap website to capture records for bilby (and other EPBC-listed fauna) in the Pilbara.
- Collection of recent and historic records for the Pilbara region from review of published and grey literature and existing databases near completion.
- Contact established with relevant experts and departmental staff to gather additional records. Liaison with mining companies in the Great Sandy Desert established via the Rangelands NRM.
- Trials to assess transect monitoring methods commenced in known bilby locations.
- Scat collection and DNA extraction methods trialled using bilby faecal samples.
- Three collaborations initiated with industry and research institute for future survey and monitoring options.

Management implications

This research will develop consistent and refined survey and monitoring techniques for bilbies in the Pilbara Bioregion, with the potential for broader state and national applications. The data and records gathered will improve understanding of bilbies in the Pilbara, and allow for habitat modelling and predictions of bilby distribution. This in turn will inform future management of bilby populations and assist in the assessment of mining and development proposals.

Future directions

- Manage and maintain an accurate and up-to-date database of bilby records for the state. Continue fieldwork to establish the presence/absence of bilbies across the Pilbara Bioregion.
- Develop efficient and effective survey and monitoring methods for the bilby.
- Identify and establish long-term monitoring sites in collaboration with landholders and mining companies to obtain ongoing records and understanding of bilby occurrence and distribution.