

'Understanding the population genetics of feral camel populations.'

## Project Synopsis

|                           |              |
|---------------------------|--------------|
| Project commencement:     | 1 May 2008   |
| Project completion:       | June 30 2009 |
| Total project investment: | \$200,000    |



## Project Aim

This project will result in a greater understanding of the camel population and the impacts their presence is having on natural resource assets and the pastoral community.

Information generated will allow for the development and implementation of cost-effective control measures, resulting in significant benefits to biodiversity conservation and asset protection in the semi-arid and arid regions of Australia.

This project will also provide sophisticated and cost-effective techniques for monitoring camel populations to determine the effectiveness of control measures whilst identifying the assets that are at greatest threat from camels.

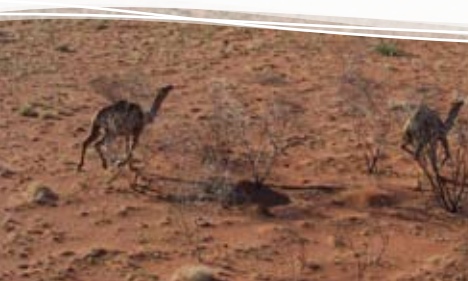
'This will make a significant contribution to our understanding of feral camels and how they should be managed in WA and Australia.'

Dr Andrew Woolnough  
Manager, Vertebrate Pest Research Section, Department of Agriculture and Food.

## The Challenges

The key challenges of this project are:

- Camels occur in remote areas so project work is expensive and their nomadic behaviour imposes a risk for field work.
- Lack of data and information.
- Maintaining continuity within the team due to the project's remote nature.



## Key Activities

**Population genetics:** We will use networks to undertake the opportunistic of camel samples from control work followed by a genetic analysis at Murdoch University to analyse and interpret results.

**Camel Movements:** We have selected an area to deploy satellite collars and undertake a collaring exercise which is a considerably demanding exercise that includes the engagement of a consultant veterinarian from Queensland. We will monitor the movement of camels and then analyse and interpret the data.

**Assets at Risk:** We will employ a specialist to undertake the work, source data, identify gaps in the data and produce a report.

## Key Outcomes

**Population genetics:** The genetic structure of the camel population in WA will be mapped and a scientific paper produced to promote the results.

**Camel Movements:** Movement data will be collected and documented within a 'Google Earth' environment. The movement pathways and analysis of data will also be documented.

**Assets at Risk:** A series of maps will be generated documenting the assets at risk.

This project was made possible through assistance from:

- Population genetics

Dr Peter Spencer, Senior Lecturer, Murdoch University.

- Camel Movements

Dr Andrew Woolnough, DAFWA.

- Assets at Risk

Nishita Parmar/Andrew Woolnough, DAFWA.

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