

## Progress Report SP 2019-069

# Structured decision making for optimal feral herbivore management for biodiversity conservation in the Kimberley

Animal Science

### Project Core Team

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### Document endorsements and approvals as of July 5, 2021, 10:03 a.m.

Project Team	granted
Program Leader	granted
Directorate	granted

# Structured decision making for optimal feral herbivore management for biodiversity conservation in the Kimberley

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## Context

Threatened species have variable exposure and susceptibility to threats, and responses to management. Feral herbivore control is a cost-effective threat management strategy for conserving many threatened and endemic species in the Kimberley, particularly its small mammal fauna, and comprises a large part of the Kimberley work program. The efficiency and cost-effectiveness of this program could be increased by impact-focused spatial action planning, to identify efficient spatially explicit management strategies that balance the conservation needs of multiple species while accounting for other funds and opportunities in that timestep.

## Aims

- Apply structured decision making collaboratively with stakeholders to identify cost-effective feral herbivore control strategies.
- Evaluate the costs and benefits of existing and proposed herbivore control strategies.
- Understand and characterise synergies and trade-offs among alternative management strategies for herbivore control.

## Progress

- Collaborative problem formulation is underway with the Kimberley Region.
- Feral herbivore data has been sourced from the Kimberley Region for the Ord River and Kurriji Pa Yajula Nature Reserves, Walyarta, Miluwindi and Purnululu Conservation Parks, Mitchell River, Prince Regent and Drysdale River National Parks and the Ord River Regeneration Reserve.
- Spatial analysis is underway.
- Species distribution models of threatened fauna species have been acquired from the NESP Northern Australia Environmental Resources Hub and are under review.

## Management implications

- The project is utilising information and knowledge from recent annual control programs to identify feral herbivore hotspots and their likely impacts on threatened species. Identification of these hotspots will inform the development of future cost-effective feral herbivore control programs with targeted strategies for key reserves that maximise the benefits for key conservation values and increase efficiency.

## Future directions

- Undertake regional workshops.
- Complete spatial modelling and trade-off analysis.