Concept Plan SP 2019-028

Investigation into the decline of the Koomal (*Trichosurus vulpecula*) in the south-west of Western Australia

Animal Science

Project Core Team

Supervising Scientist	Michelle Drew
Data Custodian	Michelle Drew
Site Custodian	

Project status as of July 29, 2019, 2:45 p.m.

New project, pending concept plan approval

Document endorsements and approvals as of July 29, 2019, 2:45 p.m.

Project Team	granted
Program Leader	required
Directorate	required

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Biodiversity and Conservation Science Program

Animal Science

Departmental Service

Service 6: Conserving Habitats, Species and Communities

Aims

Better understand the potential factors influencing koomal population change in the southwest of Western Australia by:

- Integrating multiple data sources to determine the spatial, temporal and demographic characteristics of the changes in population
- Defining covariates that are likely to influence koomal population dynamics for inclusion in a hierarchical modelling approach
- Based on the analyses above, identify the most likely risk factors influencing population decline and potential management actions to address these

Expected outcome

- Identification of the processes likely to be responsible for the decline in koomal populations, and potentially to other vulnerable species in similar habitats.
- Recommendations regarding management actions to minimise the impact of these processes on native fauna species.

Strategic context

The project falls within three main strategic goals within Biodiversity and Conservation Science, and contributes to the key deliverables of the Animal Science Program under these goals including:

1. Biodiversity conservation and recovery programs are based on scientific knowledge - Recommendations regarding conservation actions necessary to maintain sustainable populations, or recovery of, targeted species including management of threatening processes.
2. Understanding of the effects and opportunities for mitigation of pressures and threats to terrestrial ecosystems - Recommended strategies to enhance the resilience of native fauna to habitat disturbance.
3. Conservation advice is based on scientific information - translation of research outputs in formats appropriate to the target audience to encourage adoption.

By exploring existing data sets, this project provides one of the best opportunities to assess potential processes influencing vulnerable species without additional field work.

Expected collaborations

Proposed period of the project

July 1, 2019 – Sept. 30, 2020

Staff time allocation

Role	Year 1	Year 2	Year 3
Scientist	0.3	0.1	

Role	Year 1	Year 2	Year 3
Technical			
Volunteer			
Collaborator	0.2	0.1	

Indicative operating budget

Source	Year 1	Year 2	Year 3
Consolidated Funds (DBCA)	40000	15000	
External Funding			