Concept Plan SP 2013-005

Improving the use of remote cameras as a survey and monitoring tool

Animal Science

Project Core Team

Supervising Scientist	Neil Thomas
Data Custodian	
Site Custodian	

Project status as of Aug. 2, 2016, 2:42 p.m.

Approved and active

Document endorsements and approvals as of Aug. 2, 2016, 2:42 p.m.

Project Team	granted
Program Leader	granted
Directorate	granted

Improving the use of remote cameras as a survey and monitoring tool

Science and Conservation Division Program

Animal Science

Parks and Wildlife Service

Service 2: Conserving Habitats, Species and Ecological Communities

Background and Aims

Within the Department, the use of remote cameras is becoming more popular as a new and improved tool for fauna survey and monitoring with the assumption that they provide high quality, cost effective data. However, their use to date has generally been restricted to simple species inventories or behavioural studies and beyond this there has been little assessment of deployment methodology or appropriate analytical techniques. This has sometimes lead to erroneous conclusions derived from captured images. Camera traps do have the potential to offer a comparatively reliable and relatively unbiased method for monitoring medium to large native and introduced mammal species throughout the state, including a number of significant cryptic species that are currently not incorporated under the Western Shield fauna monitoring program. However, research is required to validate and test different survey designs (temporal and spatial components) and methods of deploying camera traps and interpreting the results in a meaningful way. In particular, work is needed to determine how best to use remote cameras to provide rigorous data on species detectability, and species richness and occupancy / density.

Expected outcome

Improved and standardized protocols for the deployment and use of remote cameras, and image analysis and storage, leading to more effective and efficient biological surveys and monitoring of native and introduced fauna.

Strategic context

This research is aligned with DEC's corporate plan to undertake systematic surveys of the State's biodiversity and enhance the Western Shield monitoring program. The trial will aid in addressing current issues with the Western Shield wildlife monitoring program by giving managers an additional tool to augment current and establish new standard monitoring programs.

It addresses Science Divisions Strategic Goals G2.1, G2.2, G2.6, G2.7 G2.18 (distribution and abundance of feral camels, goats, pigs and invasive birds) and G2.29 to understand the threats to biodiversity and develop evidence-based management options to ameliorate threats. The trial will also contribute to scientific concepts and tools for best-practice management of biodiversity as part of nature resource management (G4.6, G4.9 and G4.10). Additionally, the findings will contribute to biodiversity and natural resource management by ensuring that the key findings are incorporated into DEC's policies and practices (G6.6 and G6.7)

Expected collaborations

Great Southern District

Proposed period of the project

June 12, 2013 – None

Staff time allocation

Role	Year 1	Year 2	Year 3
Scientist			
Technical			

Role	Year 1	Year 2	Year 3
Volunteer			
Collaborator			

Indicative operating budget

Source	Year 1	Year 2	Year 3
Consolidated Funds (DPaW)			
External Funding			