

## **Progress Report SP 2011-021**

# **Western Australian terrestrial fauna surveys**

## **Biogeography**

### **Project Core Team**

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### **Project status as of July 4, 2016, 3:57 p.m.**

Approved and active

### **Document endorsements and approvals as of July 4, 2016, 3:57 p.m.**

<b>Project Team</b>	granted
<b>Program Leader</b>	granted
<b>Directorate</b>	granted

## Western Australian terrestrial fauna surveys

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### Context

The Department with the assistance of the Western Australian Museum has a long-standing commitment to undertaking regional biogeographic surveys of the State. These surveys have underpinned the selection of areas for the conservation reserve system, provided information to determine the conservation status of species and filled significant gaps in biodiversity knowledge. While these large scale surveys provide analyses of biodiversity patterning for regional-scale conservation planning, sites are usually too sparse and often lack detail at finer scales. The more localised surveys undertaken will fill spatial and/or habitat gaps in the larger regional surveys, extend geographic coverage, assist in resolving taxonomic issues, increase ecological understanding, provide information on fine-scale biodiversity patterns and in many cases complement regional surveys.

### Aims

- Provide understanding of landscape-scale terrestrial fauna biodiversity and concomitant patterning in terrestrial fauna to inform conservation planning and as a baseline for future monitoring.
- Collect, manage and interpret data on the distribution, ecological tolerances and conservation status of terrestrial fauna species and communities.

### Progress

- In September 2015, a survey in a remote part of the northern Nullarbor was undertaken (Colville 1:100,000 map sheet) in collaboration with the Goldfields Region and a report on the results of the vertebrate survey was produced.
- In September 2015 a survey of the area around Kiwirrkurra in the eastern Gibson Desert was undertaken. This was a collaboration between the Traditional Owners, the Western Australian Museum and the Australian Government's BushBlitz Program. The work focused in an area with little terrestrial vertebrate information, and along with extensive DNA collections, populations of several rare species were identified. A report on this work has been completed and all data have been submitted to the BushBlitz Team. Genetic samples and voucher specimens have been lodged with the Western Australian Museum.
- Survey and monitoring guidelines for the sandhill dunnart (*Sminthopsis psammophila*), and a baseline survey design in the Great Victoria Desert, were completed.

### Management implications

The immediate aims of the individual projects vary depending on the needs of the funding source, but usually contribute to improved species distributional and ecological understanding, prioritisation of conservation actions by local managers, and/or the assessment of potential environmental impacts of land use development proposals. Individual survey projects assist regional conservation and land managers to understand local biodiversity patterning and its underlying drivers, and permit the use of this information to assess environmental impacts, prioritise conservation actions, set biodiversity management targets, establish baselines for monitoring and monitor change. The combination of surveys enables improved understanding of species distributions and habitat requirements at a State level, thus contributing to bioregional analyses, assessment of the design of the conservation estate, reviews of species conservation status and analyses of the relationships between species and broad-scale gradients and threats such as climate change.

## Future directions

- Colville map sheet data uploaded to NatureMap.
- Peterswald map sheet vertebrate report completed.
- The development of collaborative arrangements to facilitate future surveys is ongoing.