

## **Progress Report SP 2012-022**

# **Conservation of south coast threatened birds**

**Animal Science**

### **Project Core Team**

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Update requested

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**Project Team**

granted

**Program Leader**

granted

**Directorate**

required

## Conservation of south coast threatened birds

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### Context

Identifying the conservation requirements of threatened south coast birds, such as the Critically Endangered western ground parrot, Endangered Noisy Scrub-bird, Vulnerable western bristlebird, and western subspecies of the western whipbird, and the Endangered Australasian bittern, will aid *in situ* management of these taxa. Understanding responses to fire and hydrological changes, biological and behavioural characteristics, such as vulnerability to predation, and nesting site requirements are essential knowledge for the conservation of these Western Australian birds (some of them endemic to the south-west) and the development of management programs.

### Aims

- Develop an understanding of the biological and ecological factors that limit the distribution and numbers of south coast threatened birds, including interactions with predators, habitat requirements and response to fire.
- Increase the survival chances of south coast threatened birds and increase their total population size through creation of management prescriptions that will benefit all threatened south coast animals.
- Investigation of life history characteristics and ecological processes impacting on recruitment in the Australasian bittern.
- Survey and monitor Australasian bittern populations and habitat to assist tracking current trends.

### Progress

- Population monitoring of western ground parrots has continued but preliminary examination of the data suggests that parrot abundance levels may be declining, and possibly associated with abundance of introduced predators.
- Ground parrot and bittern monitoring protocols are being further refined through use of audio recordings, field testing of performance characteristics of recording units, and analysis of trends in current data sets.
- Five new ground parrots were added to the captive population at Perth Zoo.
- In collaboration with staff from Perth Zoo, a trial of a tagging harness design for ground parrots was completed successfully.
- New data on roosting and foraging movements were gathered from five ground parrots fitted with tracking devices, and at least three of these birds survived a fire in Cape Arid National Park in early 2019.
- Publication of a paper modelling the future distribution of ground parrots in the face of climate change, has filtered out unsuitable translocation sites and therefore allowed a cost-effective approach to assessing and selecting potential translocation sites.
- Analysis of monitoring data on scrub-birds at Two Peoples Bay has not led to identification of a reason for recent declines, although several potentially contributing factors (including fire and predators) have been identified. The analysis is being prepared for publication.
- Three talks presented at conferences and symposia.
- Information from camera trapping surveys currently being written up to inform knowledge of foraging behaviour and habitat preferences of Australasian bitterns.

### Management implications

- Knowledge of the biology and responses to threats of south coast threatened birds provides a basis for decision making and management actions for their recovery, especially with respect to introduced predators and fire, in important conservation reserves on the south coast.

- The collection of high quality depth and water quality data will be critical to the development of modelling designed to predict the hydrological futures for high priority bittern breeding wetlands. These research findings will help inform stakeholders and land managers where to target mitigation strategies.

## Future directions

- Response to fire by bristlebirds, changes in scrub-bird abundance and acoustic data to be submitted for publication.
- Continue to develop monitoring analyses and techniques, particularly for ground parrots, scrub-birds and Australasian bitterns, and finish writing up recent survey data.
- Conduct trial GPS tracking of Australasian bitterns.
- Continue to monitor key populations of Australasian bittern and their habitat so that trends can be tracked and communicated to stakeholders and inform management.
- Investigate feasibility of population tracking through DNA analysis of shed bittern feathers.