



Cockatoo Project

Research Forum November 2009



WUNGONG CATCHMENT FOREST ENHANCEMENT PROJECT

2009/2010 and 2010/2011

Program for further monitoring and investigation by the
Western Australian Museum - R.E. Johnstone and T. Kirkby

Cockatoo Project – R.E. Johnstone, T. Kirkby & K. Sarti.

Aims and Objectives

Monitor and continue to document breeding, feeding and roosting sites for the Forest Red-tailed Black Cockatoo, Carnaby's Cockatoo and Baudin's Cockatoo within the Wungong Catchment and adjacent areas i.e. Bungendore Park and the Canning and Serpentine Dam Catchments. Main objectives within the Wungong Catchment are to document areas of critical habitat (breeding, roosting and feeding sites), the current distribution, status, habitat preferences, breeding season and diet for each species; monitor nests with details of nest trees, continue searches for new nests and collect data on clutch size, incubation period, fledging period, breeding success, breeding behaviour and movements. This project (along with the avifauna project) will provide data on any changes in populations of these and other high risk species due to the impacts of clearing, vegetation thinning, nest competitors, fire and climate change.

Method

Currently the Museum is monitoring 51 nests of the Forest Red-tailed Black Cockatoo and 14 of Carnaby's Cockatoo within the Wungong Catchment and adjacent areas (Bungendore Park and 31 Mile Road). Nest sites are mapped with GPS and the trees marked, measured and photographed.

Feeding sites are being mapped as part of a detailed study of foraging habits and habitat preferences that will help identify and rank habitat quality at both broad and fine geographic scales. A total of 23 roost sites (14 for Forest Red-tail, 6 for Baudin's Cockatoos and 3 for Carnaby's Cockatoos) are being monitored in the Wungong Catchment. Roosts provide valuable demographic data and continued monitoring helps provide an indication of the health of these populations. Also with Baudin's Cockatoo we have been studying the relationships between the birds of two roosts eight kilometres apart in the Araluen and Wungong Valleys; i.e. notes on the food, foraging distances and overlap of foraging ranges for the two groups.

Banded individuals are providing information on estimates of home ranges and movement patterns and their relationship to threats such as clearing, wildfire and feral animals including feral bees and exotic Corellas.

Geographical Importance

The Wungong Catchment contains the largest known breeding population of the Forest Red-tailed Black Cockatoo in the south-west and a number of important roost sites and foraging sites. This subspecies is currently listed as Schedule 1 (Endangered) under the Western Australian Wildlife Conservation Act, and as

Vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999*. The catchment also contains a small breeding population of Carnaby's Cockatoo (one of the few known breeding sites in the Darling Range) and this species is listed as Schedule 1 (Endangered) under the Western Australian Wildlife Conservation Act and Endangered under the EPBC Act. The catchment also contains a very important roost site for Baudin's Cockatoo (one of the largest roosts in the State) and this species is also listed as Schedule 1 (Endangered) under the Western Australian Wildlife Conservation Act, and as Vulnerable under the EPBC Act.

Project correlation with Water Corporation – Key Performance Indicators:

This project will assist the Water Corporation to meet a number the new and proposed Project Key Performance Indicators. KPI's specifically addressed are:

- KPI 11 – changes in indicator fauna species;
- KPI 15 - Community Understanding and Social acceptability of Catchment Thinning;
- KPI 16 – cost effectiveness of Catchment Thinning.

Also addressed within the project are a number of KPIs listed under the Forest Management Plan 2004-2013:

- KPI 2 – the status of critically endangered, endangered, vulnerable, conservation dependent forest-dwelling species and ecological communities as determined by listing;
- KPI 3 – the status of selected threatened or conservation dependent species that are subject of management actions to protect them;
- KPI 10 – effectiveness of regeneration of native forest and plantations;
- KPI 31 – development of scientific understanding of ecosystem characteristics and functions;
- KPI 33 – operational control; KPI
- KPI 28 – adaptive management.