

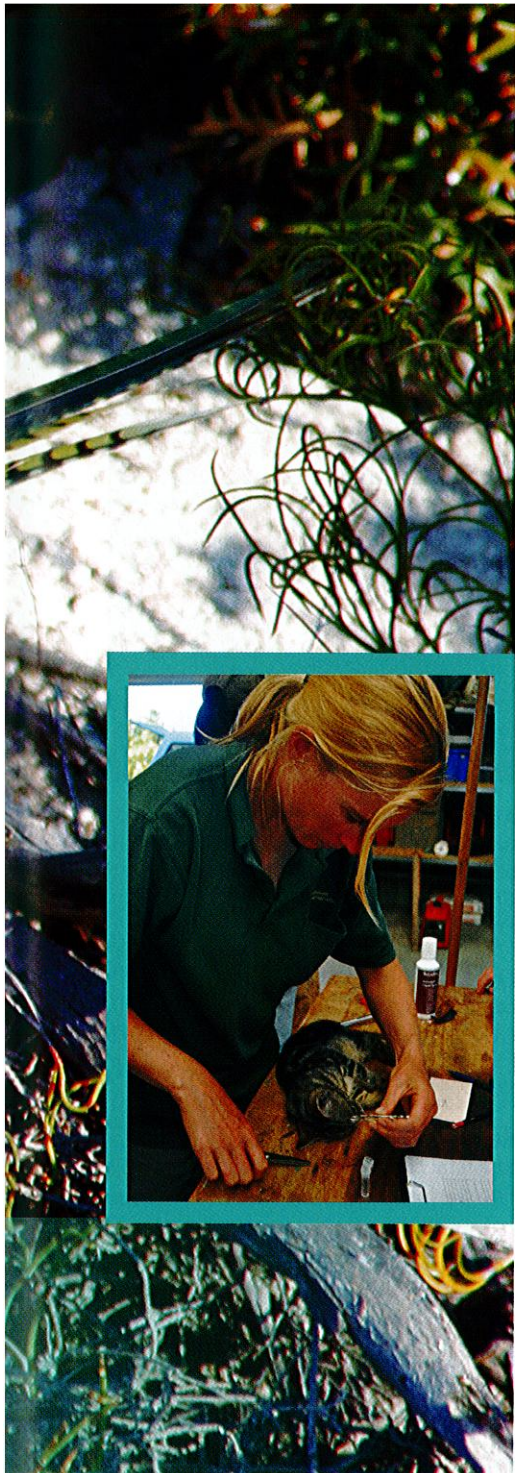


## Kyloring, cats and conservation: the race to save the western ground parrot

Dramatic declines in populations of the critically endangered western ground parrot, known as kyloring to the Aboriginal people of the area, have sparked a race to save the species from extinction. Cat control, captive breeding and fire management are each playing a role in bringing the species back from the brink.

by Sarah Comer, Allan Burbidge, Dave Algar, Abby Berryman and Anne Bondin





Alarm bells were ringing with the Department of Parks and Wildlife's (DPaW's) South Coast Threatened Birds Recovery Team, which is responsible for the management of recovery programs for a suite of birds endemic to the south-west, including the noisy scrub-bird (*Atrichornis clamosus*), western bristlebird (*Dasyornis longirostris*) and western whipbird (*Psophodes nigrogularis*). The recovery team believed that the decline in ground parrots could indicate that other species could also be at risk. Lack of conservation action could result in not only the loss of ground parrots but possible declines in other threatened species as well. The cause of the declines was at first unclear, but further investigation concluded that predation by feral cats was the most likely reason.

At about the same time the declines were realised, genetic studies showed that the western ground parrot was distinct from the eastern ground parrot, and warranted being treated as a separate species from its eastern cousin. The rate of decline of the western birds meant that, if nothing was done, this enigmatic species could be lost forever. With this realisation, the recovery team, in collaboration with the Friends of the Western Ground Parrot, submitted a nomination to the federal government to have the western ground parrot declared as critically endangered under the Environment Protection and Biodiversity Conservation Act. This was endorsed in 2013.

Since 2010, the combined efforts of departmental staff, Friends of the Western Ground Parrot and community volunteers have seen this ambitious recovery project progress to the point where a landscape-based trial for cat control is now in place—along with associated monitoring of this predator and selected potential prey species including ground parrots. Although it is still early days, the future for the ground parrot is much more promising than it was three years ago.

### Controlling cats

The South Coast Threatened Birds Recovery Team launched an ambitious landscape-scale project integrating trials of the feral cat bait Eradicat®



**Main left** A western ground parrot foraging for seed.

Photo - Brent Barrett/DPaW

**Inset** DPaW technical officer Louisa Bell collaring a feral cat.

Photo - Cam Tiller

**Above** DPaW staff and volunteers trapping native animals in Cape Arid National Park.

Photo - Abby Berryman/DPaW

into DPaW's existing *Western Shield* fox baiting program. The first delivery of the Eradicat baits to Fitzgerald River National Park occurred in March 2010, and in subsequent years this program has extended to include 145,000 hectares of Cape Arid National Park and Nuytsland Nature Reserve. This extension was particularly important as the southern heathlands of Cape Arid are home to more than 95 per cent of the remaining ground parrots.

This project, called the Integrated Fauna Recovery Program (IFRP), has western ground parrot conservation at its heart but is also aimed at conserving a suite of other threatened or conservation-dependent mammals and birds.

While DPaW has made significant advances in the control of feral cats

In 2009 an ambitious project to reverse a dramatic decline of the critically endangered western ground parrot (*Pezoporus flaviventris*) started on the south coast (see 'Heeding kyloring's warning: south coast species under threat', *LANDSCOPE*, Spring 2010). This secretive parrot, at the time believed to be a subspecies of the eastern ground parrot, was relatively easy to find in a number of locations along the south coast in the late 1990s, but by 2004 it had disappeared from Waychinicup National Park, near Albany. The once robust population in Fitzgerald River National Park had also declined dramatically.





**Above** Although their diet is mainly seeds, western ground parrots have also been observed eating flowers, in this case *Grevillea tripartita*.  
Photo - Brent Barrett/DPaW



**Left** One of the IFRP team's remote cameras captured this image of a feral cat with a bandicoot in Cape Arid National Park.  
Photo - IFRP team/DPaW



**Below left** Attaching a GPS radio collar to a feral cat in Cape Arid National Park.  
Photo - Sarah Comer/DPaW

in arid and semi-arid areas, the IFRP project was designed to research appropriate baiting regimes for the wetter southern region of the state (see 'Controlling cats: the work continues', *LANDSCOPE*, Autumn 2013). In the past few years the team has been monitoring direct uptake of baits by attaching GPS radio-collars to feral cats caught prior to baiting. Collar data not only provides a direct indication of bait-related mortality, but also gives the team invaluable information on habitat use, movement patterns and home range size of individual cats.

Initially, the team also monitored feral cat activity by recording tracks on sand pads before and after baiting. However, this method was not suited



**Right** Captive western ground parrots are fed a range of native plants. This male is eating curry bush, one of the plants found throughout ground parrot habitat.  
Photo – Abby Berryman/DPaW

**Below right** The dibbler (*Parantechinus apicalis*) is one of the suite of native species that the project team hopes will benefit from feral cat control in Fitzgerald River National Park.  
Photo – Allan Burbidge/DPaW



to south coast reserves due to disease hygiene restrictions limiting access to sites after rain, and persistent rain washing tracks away. In 2011 remote cameras were trialled and are now being used to support the bait uptake trials by detecting feral cats before and after baiting programs. The cameras have also assisted with monitoring other native species at risk of predation such as the quenda (*Isodon obesulus*) and western brush wallaby (*Macropus irma*).

Native fauna in the target areas are also being monitored through standardised *Western Shield* trapping transects, and, where not already existing, new transects were established in the first year of the project. Although it is early days, there are some encouraging signs that cat baiting may be benefiting native species. For example, on one of the sites in Cape Arid National Park the number of quenda trapped has increased significantly in the three years since baiting started.

The project has also used automated recording units (ARUs) that are programmed to record all bird calls in an area at specific times of the day. Western ground parrot calls are easily identified from the visual sonogram that is generated from these recordings. While volunteer listening surveys are still very important, the use of ARUs is giving the team the ability to survey more historical habitat and monitor known populations in a systematic manner.



## Captives

While conservation of the ground parrot in the wild is the focus of the IFRP, the recovery team is also aware of the risks associated with a single strategy to manage the remaining wild population. In the case that cats are not the cause of the dramatic declines, or we are not able to limit the threat in time, then the western ground parrot could conceivably disappear forever. After much debate, a number of birds were placed in captivity, with the long-term aim of establishing a captive breeding program to provide birds for eventual release into the wild when introduced predators are controlled, or when other causes for the birds' decline are overcome. Such a population of birds would also provide an insurance policy if

bushfire in Cape Arid National Park seriously decimated the remaining population. However, this path also came with risks—for example, there was no way of being sure what impact removing some birds would have on the dwindling wild population. In addition, no-one had kept or bred western ground parrots before. Nevertheless, this avenue needed to be attempted.

Seven ground parrots have now been successfully 'maintained' in captivity for several years, and one of the pairs has made two attempts to breed. The captive program has created an excellent opportunity to learn about the husbandry required to keep ground parrots, and provides a good chance that they will breed in captivity.





**Left** Alan Danks setting up an automated recording unit. These are now being used to help with surveys for ground parrots in remote areas.

*Photo – Allan Burbidge/DPaW*

**Below left** Technical officer Louisa Bell radio tracking a feral cat in Fitzgerald River National Park.

*Photo – Jeff Pinder/DPaW*

## Managing fire

As well as introduced predators, fire is also a threat to ground parrots. DPaW manages the threat of intense bushfire as part of park management, for this and other fire-sensitive species. In Cape Arid and Fitzgerald River national parks, detailed planning has centred on protection of remaining habitat of the western ground parrot. In January 2010, a bushfire burnt 1,200 hectares of habitat in one of the two strongholds of birds in Cape Arid National Park, including a long-unburnt area where it was believed that birds had been nesting. Firefighting efforts resulted in the fire being kept to a relatively small area and a small number of birds was observed on the fire perimeter immediately afterwards. Further monitoring in 2013 revealed more birds, some of which were feeding in the burnt area.

Work will continue to improve bushfire suppression. For example, an upgrade to the airstrip adjacent to Cape Arid National Park will improve the efficiency of fire-fighting efforts by enabling waterbombers to be based closer to remaining habitat should a bushfire threaten these areas. Esperance-based DPaW staff also received support from the department's remote regions program to upgrade some of the strategic fire access tracks in the park, which will also aid firefighting efforts.

## A collaborative effort

Friends of the Western Ground Parrot also have been working hard to assist with the recovery project, collecting donations for the Western





**Right** Deanna Rasmussen and Mark Cowan setting automated recording units in the Fitzgerald River National Park to survey historical ground parrot habitat.

**Below right** A common brushtail possum (*Trichosurus vulpecula*) in Fitzgerald River National Park.

Photos – Sarah Comer/DPaW

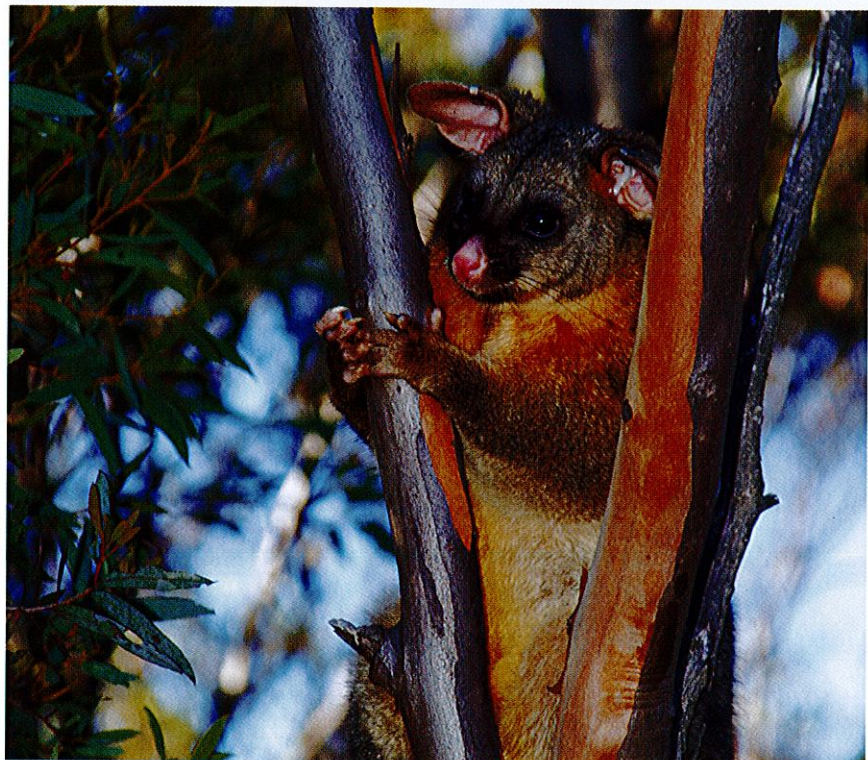


Ground Parrot Rescue Fund and providing assistance to volunteers who wish to be involved in the field program. Volunteers take part in a range of activities including field surveys for ground parrots, and monitoring other native species and feral cats—collecting important information which assists the recovery team in its evaluation of the success of predator control.

### The future

In 2014 DPaW will start a feral cat control program in the Two Peoples Bay–Manypeaks area, a site from which the western ground parrot disappeared 10 years ago. This area is extremely important for fauna conservation, being home to the only mainland populations of the critically endangered Gilbert's potoroo (*Potorous gilbertii*) and endangered noisy scrub-bird, and significant populations of other species including the western ringtail possum (*Pseudocheirus occidentalis*), quokka (*Setonix brachyurus*), Australasian bittern (*Botaurus poiciloptilus*) and western bristlebird. Should the captive breeding and predator control programs succeed, this will be one of the areas to be considered for ground parrot translocations.

The future of the western ground parrot is still tenuous, with its conservation in the wild reliant on effective management of threats including both introduced predators and bushfire. While the work of DPaW, and particularly the IFRP team, is promising in terms of controlling predators, there are still many challenges in developing the most efficient techniques for successful uptake of cat baits.



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*This project is a collaboration between a large number of individuals from DPaW's South Coast Region, Science and Conservation Division and Western Shield program, as well as the Friends of the Western Ground Parrot, Perth Zoo, The University of Western Australia and the local community. It has been supported by a number of funding bodies including the state government via DPaW, Caring for our Country, Biodiversity Fund, State Natural Resource Management (NRM), Exetel and South Coast NRM.*



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