

FROM THE ASHES

Creating a future for western ground parrots



Already facing an uncertain future, the critically endangered western ground parrot suffered several blows in 2015 and early 2016. But, it's not all doom and gloom, there is some cause for optimism.

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It was late in the afternoon on 29 February 2016 when we spotted smoke on the horizon in Cape Arid National Park. Our hearts sank – the spectacular lightning we had been watching had started a fire in an area that we had planned to search for the elusive and critically endangered western ground parrot (*Pezoporus flaviventris*) or Kyloring as it's also known. We stopped to plot the location of the fire and then called Parks and Wildlife fire management staff in Esperance. When fire is threatening a species like the western ground parrot, rapid response times are crucial, as a single uncontrolled fire could spell the beginning of the end.

The sense of dread we felt was in stark contrast to the delight we had experienced on the previous morning when ground parrots were heard calling in the adjoining Nuytsland Nature Reserve – the first time in a decade. We speculated that these birds may have escaped from the devastating fires of last October and November but the new fire potentially could burn through this area where we had only just rediscovered the birds. What an emotional ecological roller coaster!

A PARROT IN PERIL... THE BACKGROUND

By 2004 it was clear that the western ground parrot was in a perilous state,

with populations at Waychinicup National Park (near Albany) disappearing and at Fitzgerald River National Park declining dramatically. The species' stronghold was Cape Arid National Park, with estimates of population size by the South Coast Threatened Birds Recovery Team at less than 140 birds in the wild. In 2010, efforts to halt this decline were ramped up with an increased focus on managing fire and controlling introduced predators, in particular feral cats (*Felis catus*), in the remaining western ground parrot habitat (see 'Heeding Kyloring's warning: south coast species under threat', *LANDSCOPE*, Summer 2013). While the parrot was the flagship species for this work, it was expected that numerous other threatened and not-so-threatened species, such as the quenda (*Isodon obesulus*) and dibbler (*Parantechinus apicalis*), would benefit from reduced feral cat populations and improved fire management in Cape Arid and Fitzgerald River national parks.

A small number of birds were also taken into captivity in 2009–10 by the then Department of Environment and Conservation to learn how they could best be kept in a captive situation, with the longer-term objective of establishing a captive breeding population for release back into the wild, once fire and introduced predators had been managed.



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Main top A lightning strike starts a fire in Cape Arid National Park.

Photo – Cameron Tiller/Parks and Wildlife

Main bottom Fire in Cape Arid National Park.

Photo – Saul Cowen/Parks and Wildlife

Inset top The western ground parrot or Kyloring as it is also known

Photo – Abby Berryman/Parks and Wildlife

Inset bottom Trapping for feral cats is an important component of protecting the western ground parrot.

Above The recently burnt Cape Arid National Park.

Photos – Sarah Comer/Parks and Wildlife

In 2014, these birds were transferred from the south coast to Perth Zoo, with the aim of developing such a breeding program. Perth Zoo staff have extensive and specialised experience in breeding difficult-to-breed species and in wildlife health.



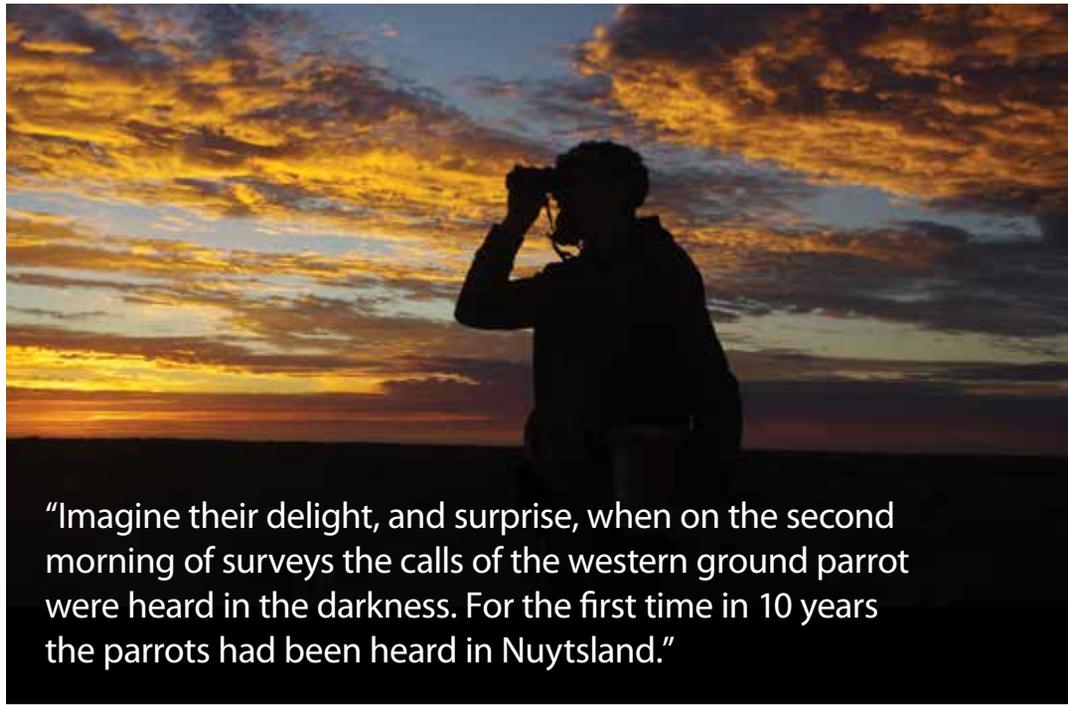
Above *Xanthorrhoeas* flowering post-fire.

Above right A dedicated team is up before dawn looking and listening for signs of the western ground parrot.

Photos – Sarah Comer/Parks and Wildlife

They have also provided advice and assistance for the western ground parrot captive program since its inception.

Parks and Wildlife's Integrated Fauna Recovery Project (IFRP) team has continued to monitor ground parrots in Cape Arid National Park and has searched for birds in Fitzgerald River National Park. Numerous volunteers assisted the field team, showing remarkable enthusiasm for getting out of their tents to conduct surveys an hour before sunrise and after sunset each day. Many have been rewarded by hearing birds, and a few have even caught glimpses of this striking-looking parrot as it flushes from vegetation. The survey results from Cape Arid were encouraging, and in autumn 2015 the recovery team deemed that the status of the ground parrot population had stabilised to the point where more birds could be taken from the wild for captive breeding. Given there were only five birds



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at Perth Zoo, the recovery team was very aware that more birds were required to increase the chances of breeding the parrots. Plans to catch more birds were made with funding provided by Parks and Wildlife, South Coast Natural Resource Management and the Friends of the Western Ground Parrot to carry out this work.

A FIERY TIME

Returning to present day, on 17 October 2015 a series of lightning strikes blanketed the south-west of the State resulting in the ignition of three fires in Cape Arid National Park. Unfortunately, two of these were in western ground parrot habitat and, despite the best efforts of firefighters and water bombers, the fires burnt through about 16,000 hectares including a significant proportion of the ground parrot habitat that had been occupied in autumn 2015. It was in these areas that the team had planned to catch birds for the captive breeding program. The recovery team discussed the impact of the fires at length and decided that the capture team would still head out to the park and conduct surveys, before deciding whether enough birds were left to justify taking more.

A small team of staff and volunteers started the survey work in the first

week of November 2015, and were later joined by the rest of the team to survey unburnt vegetation in and around the burnt ground. After 10 days of intensive surveying, the team had found enough birds around the October fire edges, including young birds preferred for captures, to justify removing a small number of individuals. The capture work started on 12 November.

Recognising the importance of feral cat control immediately post-fire, the capture team also conducted extensive trapping and baiting for cats around the fire edge. Feral cats are known to travel extensive distances from their normal home range area to recently burnt ground, presumably to forage on high densities of prey that seek refuge in unburnt pockets. Seven feral cats were trapped and removed from the area surrounding the pocket of unburnt vegetation that contained a large number of the remaining parrots.

Strong winds hampered capture efforts, but the team managed to catch a young female and male parrot, that were suitable for the captive program. Both birds appeared to quickly settle into their new surroundings, showing ready acceptance of their new diet. At the same time, automated recording units (ARUs) were deployed to monitor the areas where birds had been heard and caught.

Right A western ground parrot being measured.

Photo – Alan Danks/Parks and Wildlife

Far right Releasing a male western ground parrot into an aviary.

Photo – Jennene Riggs/Riggs Australia

Below right Western ground parrot habitat.

Photo – Louisa Bell/Parks and Wildlife

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Only days into the capture work, another band of storms struck Cape Arid igniting a number of fires, which resulted in the evacuation of the capture team. Despite the best efforts of firefighters, a further 17,000 hectares of ground parrot habitat was burnt, including areas that had been targeted for capturing birds just weeks earlier.

The impact of the combined October and November fires was devastating, with 25,000 hectares or an estimated 90 per cent of the known western ground parrot habitat burnt. And, as if this loss was not bad enough, the two young birds died at Perth Zoo several weeks later – a sobering disappointment for all involved as high hopes were held for these birds, which seemed to get along well together and were thought to have good potential for breeding. Unfortunately, they succumbed to unpredictable and rapid onset of Aspergillosis infections and did not respond to treatment, despite intensive efforts by Perth Zoo's highly experienced veterinary staff.

PICKING UP THE PIECES

The recovery team met to discuss the situation and agreed on emergency recovery actions to secure the remaining birds in the wild. The field team was hopeful that a small number of birds might remain in the two unburnt pockets of vegetation, and also recognised the need to conduct urgent feral cat control. Parks and Wildlife allocated some emergency post-fire funds to carry out feral cat baiting to protect the remaining birds, carry out more targeted feral cat removal, retrieve burnt ARUs and deploy additional units in unburnt habitat.

The first few months of 2016 saw the IFRP team focused on this work. In January they travelled to Cape Arid National Park, and surveyed the two small pockets of vegetation. Birds were heard calling and all of the team were lucky enough to see birds as they flushed. Targeted cat trapping was carried out and 10 feral cats were removed from the areas surrounding the remaining ground parrot habitat. ARUs were deployed around the fire edges where it is hoped they will detect parrots.

A trip in late February saw the Parks and Wildlife team and volunteers travel some three hours east of Esperance to look for parrots in Nuytsland Nature Reserve. Despite recent searches in this remote area, which abuts Cape Arid National Park, parrots had not been detected in surveys since 2006. Hopeful that some birds had managed to escape the fire, the survey team focused on areas of unburnt vegetation that might provide refuge for parrots. Imagine their delight, and surprise, when on the second morning of surveys the calls of the western ground parrot were heard in the darkness. For the first time in 10 years the parrots had been heard in Nuytsland. It is not known how long these birds had been in Nuytsland, but it is likely that they were birds that had moved away from the October–November fires.

Hopeful that more birds would be found, the Nuytsland survey team continued to target pockets of vegetation that looked promising for ground parrots. Only three days into this survey another series of thunderstorms treated the team to a spectacular lightning show and views of storms moving across the park. But the entertainment value of these storms faded quickly when smoke was spotted on the way to the evening listening session. Plotting the location of the fire, and realising that it had the potential to impact on the survey team's egress from the park, the decision was made to leave. Packing up in the dark and rain, with storms still raging, was a very unusual exit strategy but at least the team was leaving having had some success in finding parrots, even if they were now under threat from fire.

A helicopter survey the next day found that the fire had been extinguished by the heavy rains. Another two fires had ignited around western ground parrot habitat during these storms; one was also put out by rain and the other tackled by Parks and Wildlife crews and resulted in only a small area being burnt – a close call and yet another reminder of the inherent vulnerability of this landscape to fires brought about by thunderstorms.

Controlling the ferals

Feral cat baiting is underway on Western Australia's south coast conservation reserves, with 465,000 hectares baited for foxes three times a year as part of the successful *Western Shield* wildlife recovery program. Autumn baiting with *Eradicat*® has been trialled in key reserves through the Integrated Fauna Recovery Project since 2010 (see 'Heeding Kyloring's warning: south coast species under threat', *LANDSCOPE*, Summer 2013) and this has been incorporated into the *Western Shield* program.

Feral cats have been targeted with *Eradicat*® bait for the past five years to protect western ground parrot habitat in Cape Arid and Fitzgerald River national parks, Nuytsland Nature Reserve, Two Peoples Bay and Mount Manypeaks nature reserves, with increases in distribution and populations of native species including quenda and other native mammals seen since the trials began. In 2016, a further operational research trial of *Eradicat*® at Fitzgerald River National Park, funded by the Federal Government's Threatened Species Strategy, will help provide more information to determine the optimum timing of baiting at south coast sites. Remote cameras are used to track feral cat activity before and after baiting.

Right Feral cats present a formidable threat to native animals.
Photo – Jiri Lochman

Far right *Eradicat*® baits being prepared as part of the *Western Shield* wildlife recovery program.
Photo – Sarah Comer/Parks and Wildlife



THE FUTURE FOR KYLORING

Currently, a team of experts from a range of conservation disciplines is assisting the recovery team develop an emergency action plan for the species. The task of securing the future for ground parrots will require action on all fronts: feral cat control, fire management, genetic management and captive management. A workshop hosted by Parks and Wildlife in March and attended by leaders from a range of disciplines from across Australia and New Zealand has provided expert input to identify and prioritise emergency interventions for the species.

The recovery actions carried out in recent years have benefited not only ground parrots, but a suite of other native species that occur nowhere else in the world. It is essential that this work continues. The year 2015 was one of the most challenging years ever for the dedicated group trying to secure the future for the western ground parrot. This remarkable parrot may be rarely seen, but straining in the darkness to hear the extraordinary call in remote and beautiful areas of the south coast has inspired many people to work together to make sure we do not let the species disappear forever.

Below The team of volunteers and Parks and Wildlife staff surveying Nuytsland Nature Reserve.
Photo – Sarah Comer/Parks and Wildlife



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The funding for the implementation of work on western ground parrot recovery and *Eradicat*® trials has been provided by Biodiversity Fund, State NRM, South Coast NRM, the Friends of the Western Ground Parrot, the Commonwealth Government and Parks and Wildlife. Perth Zoo is supporting the captive management work. Numerous individuals have volunteered their time to assist with surveys and the Friends of the Western Ground Parrot support the implementation of the ground parrot recovery project.