

A group of black cockatoos is shown in flight against a clear, bright blue sky. The birds are captured in various stages of their wing strokes, with some wings fully extended and others partially folded. The lighting is bright, highlighting the texture of their feathers and the dark, almost black, color of their bodies. The overall composition is dynamic and energetic, emphasizing the birds' movement.

Second chances for **black cockatoos**

Black cockatoos are some of Western Australia's best-loved and conspicuous birds. During the past few decades, Parks and Wildlife Service staff have been working with Perth Zoo vets and rehabilitation centres to rehabilitate black cockatoos that have fallen victim to the impacts of living in our modern-day landscape. This collaboration is working harder than ever as the number of injured cockatoos continues to rise.

by Karen Smith



Most Western Australians would be familiar with the loud and raucous call of native black cockatoos, which echo through the sky as they fly overhead. And many would also be acquainted with the wide-scale mess they can make when they descend on trees in backyards, parks, schools and even orchards, stripping the foliage before moving on again. The Nyoongar language has a word for lots of black cockatoos flying together – ngoorlak – indicating that they have been a feature of the Western Australian landscape for eons.

The iconic white-tailed black Carnaby's cockatoo (*Calyptorhynchus latirostris*) is one of three sub-species of black cockatoo endemic to WA's south-west. Often mistaken for the same species (in fact, they were considered the same species until 1979), the Baudin's cockatoo (*Calyptorhynchus baudinii*) has a longer bill and a distinctive call that resembles a 'whicher' sound, which is different to the 'wee-lar' of the Carnaby's. The third species is the red-tailed black cockatoo (*Calyptorhynchus banksia naso*), which is easily recognisable by its magnificent scarlet tail feathers.

AT A LOSS

Unfortunately, population sizes of these species have significantly declined over the past few decades. Anecdotally, Carnaby's cockatoos were once described as capable of 'blackening the skies' in flocks of more than a thousand birds. But now observers are lucky to see flocks of more than 100 birds moving through the landscape. Officially, their range has declined by more than 50 per cent and both white-tailed species are classified as endangered, while the red-tailed black cockatoo is classified as vulnerable. The causes of these declines are varied and complex, and include habitat loss and fragmentation due to clearing for development and agriculture – particularly in the Wheatbelt; competition for hollows with feral European honey bees and other species such as galahs and long-billed corellas; attacks from species such as ravens; poaching; the effects of fire; and



injury and death caused by sharing the landscape with humans.

These factors have led to the reduction in numbers of black cockatoos in the wild and have altered their distribution and foraging behaviour. For example, where red-tailed black cockatoos once only occurred in the south-west forests, they have now developed an appetite for exotic species such as the fruit of Cape lilac trees and have descended onto the Swan Coastal Plain. Nowadays, red-tailed black cockatoos are commonly sighted gathering in trees in parks, schools and backyards in the Perth metropolitan area. And, while this might be an appealing sight for backyard bird watchers, it puts the birds at increased risk of coming into conflict with vehicles and ravens more than ever.

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Main Flocks of Carnaby's cockatoos were once described as capable of 'blackening the skies'.

Above Female Carnaby's cockatoos have a distinctive white patch on their cheek, which is duller on males.

Photos – Rick Dawson/DBCA

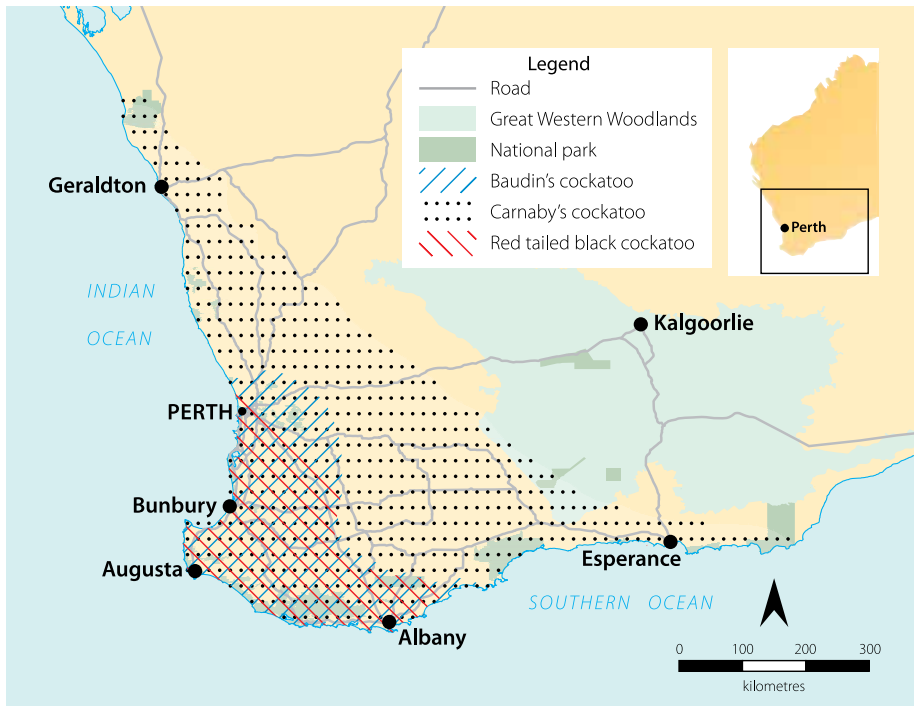
REHABILITATION PROGRAM

In collaboration with Perth Zoo's veterinary department, DBCA Science and Conservation staff are responsible for overseeing the management of the Black Cockatoo Rehabilitation Program, which has been going since the mid-1990s. Since its inception, the program has engaged local wildlife rehabilitators to assist with the care and rehabilitation of black

Protecting cockatoos

Carnaby's cockatoos, Baudin's cockatoos and red-tailed black cockatoos are protected under provisions of the *Wildlife Conservation Act 1950* and are classed as threatened or specially protected fauna. A maximum penalty of \$10,000 is imposed for offences including taking, harming or unlawful possession. The *Biodiversity Conservation Act 2016* replaces the *Wildlife Conservation Act 1950* and greatly increases the protection of threatened species, by increasing the maximum penalty of unlawful take to \$500,000 for an individual person or \$2.5 million for a corporation.

They are also listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC).



Top right Carnaby's cockatoos can live for 30 to 40 years and mate for life.
 Photo – Rick Dawson/DBCA

Right Usually only one chick of each brood survives.
 Photo – Kayley Griffiths

Discover more about
 rehabilitating black
 cockatoos

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 'LANDSCOPE' playlist
 on YouTube.

cockatoos in the hope they can be returned to the wild.

In the early days, local fauna rehabilitator Yvonne Varris took on a significant portion of this work from her home in Perth. Around this time 'Jamarri', a non-profit organisation based in Nannup, was also established by rehabilitators David and Dee Patterson. In the late-1990s, a second not-for-profit, independent conservation organisation – the Black Cockatoo Preservation Society was founded by member Glenn Dewhurst. In 2008, the society outgrew Glenn's home so was relocated to Martin, in what is now called Kaarakin, named after the Nyoongar name for the red-tailed black cockatoo. In 2011, a third rehabilitation centre – Native Animal Rescue – opened its doors to black cockatoo rehabilitation.

Nowadays, the majority of black cockatoos that are found sick or injured are taken to the Perth Zoo to be assessed.

Every cockatoo that is admitted to the vet department is anaesthetised for a full veterinary evaluation, including radiography and clinical pathology, and many undergo surgeries for fractures and injuries. Once the bird has been assessed suitable for rehabilitation, it is microchipped and sent to one of the three rehabilitation centres. Ensuring cockatoos receive specialist care is important due to the threatened nature of the species and their specific care requirements, including specific diets and specialised enclosures that assist the birds with regaining their fitness.

The strong collaboration between DBCA and the three rehabilitation centres, is working harder than ever to uphold the black cockatoo rehabilitation process as the number of injured birds continues to increase. To put this in context, the number of injured red-tailed black cockatoos has risen steadily each year from 2007–08 when 27 birds were

Did you know?

Black cockatoos can live for 30 to 40 years in the wild and partner with their mate for life.

Adult female white-tailed black cockatoos differ from adult males as they have a light grey bill, greyish eye ring and a large, distinctive white cheek patch. Males have a black bill, a pink eye ring (when sexually mature) and a smaller, duller cheek patch.

Carnaby's cockatoos are one of the few cockatoo species to migrate. Most breed in the Wheatbelt and Great Southern regions, and then migrate to the higher rainfall coastal regions, including the Swan Coastal Plain, for the winter.

Breeding black cockatoos generally lay two eggs, on average two to eight days apart, of which only one usually survives.



Left Working with Rick Dawson, Perth Zoo's Anna LeSouef takes a swab from a black cockatoo.
Photo – DBCA

Above Tail marking is used in studies.

Below 'Cilla Black' is a cockatoo that was tagged at 12 months old. Now six years, she has been observed laying eggs in an artificial hollow.
Photos – Rick Dawson/DBCA

found to 137 in 2016–17. The number of injured Carnaby's cockatoos has also risen from 74 in 2007–08 to 106 in 2016–17. It is estimated that the cost of treating each bird starts at \$350–\$400, in addition to many thousands of dollars spent on rehabilitation, most of which is provided in-kind by the rehabilitation centres. Without the contribution and dedication of the volunteers, black cockatoos could not be rehabilitated and released on the scale they currently are.

INTO THE WILD

The best outcome for any black cockatoo that presents with injuries is to be released back into the wild. Annual releases are carried out in areas known for wild flocks and super roosts, such as at Yanchep National Park and the Kensington/Bentley super roost. On the day of the release, wildlife officers flight test each suitable cockatoo, fit a uniquely numbered leg band to each bird and collect a DNA sample that is later used for genetic studies,

identification purposes and to assist with the detection of unlawful activity, such as poaching.

As the populations of black cockatoos continue to decline across WA, research projects undertaken in conjunction with the Parks and Wildlife Service, Perth Zoo (and other sponsors) and Murdoch University are incorporated into the release program to attain critical information to assist with long-term conservation management of the species and help guide urban planning.

Join the fight for black cockatoos

Since 2003 every rehabilitated black cockatoo that has been released has been fitted with a uniquely numbered leg band. Carnaby's cockatoos and red-tailed black cockatoos wear their bands on their right leg, while Baudin's cockatoos are banded on their left.

DBCA encourages members of the community to provide information about where and when they see banded birds by visiting DBCA's website and filling out a report form. There is also the opportunity to contribute long-term data if you see black cockatoos frequently visiting your area. And, you can also assist with roost counts and surveys by taking part in the Great Cocky Count – an annual, community-based survey where volunteers count black cockatoos at night-time roost sites across the State's south-west on a single night in April. For more information visit www.dbca.wa.gov.au.





A happy ending

In 2013 Parks and Wildlife Service officers banded a Carnaby's cockatoo nestling that hatched on private property in Glen Forrest. Less than 12 months later, the same bird was picked up by a member of the public and was taken to Perth Zoo with a gunshot wound to its head and a pellet wedged behind its left eye. Over the next seven months, the bird – which became known as 'Sweetie' – was rehabilitated at Kaarakin until he was deemed healthy and strong enough to be released into the Bentley super roost in June 2015.

In March 2016, Sweetie was resighted and photographed with a mate at the Glen Forrest property where it was originally hatched and banded. Since then, Sweetie and his mate have been sighted regularly and have even been observed prospecting for a hollow in which to lay eggs. There is hope that they will produce young, making Sweetie the first known rehabilitated cockatoo to successfully produce offspring.



Top left Artificial hollows have been installed in key areas to help support breeding.
Photo – Rick Dawson/DBCA

Above left Releases are carried out in areas where known wild flocks and super roosts are.
Photo – Karen Smith/DBCA

Above 'Sweetie' was first banded in 2013.
Photo – Kayley Griffiths

Below A female red-tailed black cockatoo.
Photo – Rhianna King/DBCA



Karen Smith is a Parks and Wildlife Service regional wildlife officer. She can be contacted on (08) 9219 9843 or by email (karen.smith@dbca.wa.gov.au).

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In 2012, Christine Groom, (formerly of DBCA) studied the roost site fidelity and resource use of Carnaby's cockatoos on the Swan Coastal Plain by tail marking and fitting satellite trackers to a number of cockatoos. Murdoch University researchers also fitted a number of released black cockatoos with a satellite transmitter and a solar powered GPS tracker. These trackers, which are naturally removed over time through feather moulting and preening, record the movements of the birds and greatly assist with obtaining information about their ecology, flock movements across the landscape, habitat use and, importantly, the identification of critical breeding, foraging and roosting habitat.

To date, the successful collaboration between DBCA Science and Conservation, Perth Zoo, Jamarri, Kaarakin and Native Animal Rescue, has seen the banding and release of more than nearly 500 black cockatoos, including

269 Carnaby's cockatoos, 58 Baudin's cockatoos and 139 red-tailed black cockatoos back to the wild.

ONGOING BATTLE

As the behaviour and distribution of black cockatoos changes in response to the altered land uses in WA's south-west, we will no doubt continue to see an increase in birds that have been killed and injured. However, there are things we can all do to reduce our impact on these unwitting victims, such as taking care when driving through nesting areas; reporting any injured birds to the Wildcare Helpline; planting native trees that black cockatoos can nest in and feed on; and erect nesting hollows in breeding areas to help support populations. And, hopefully, these endearing creatures will continue to fill our skies with their rowdy and beloved calls en masse for generations to come.