

Black-cockatoos and your property



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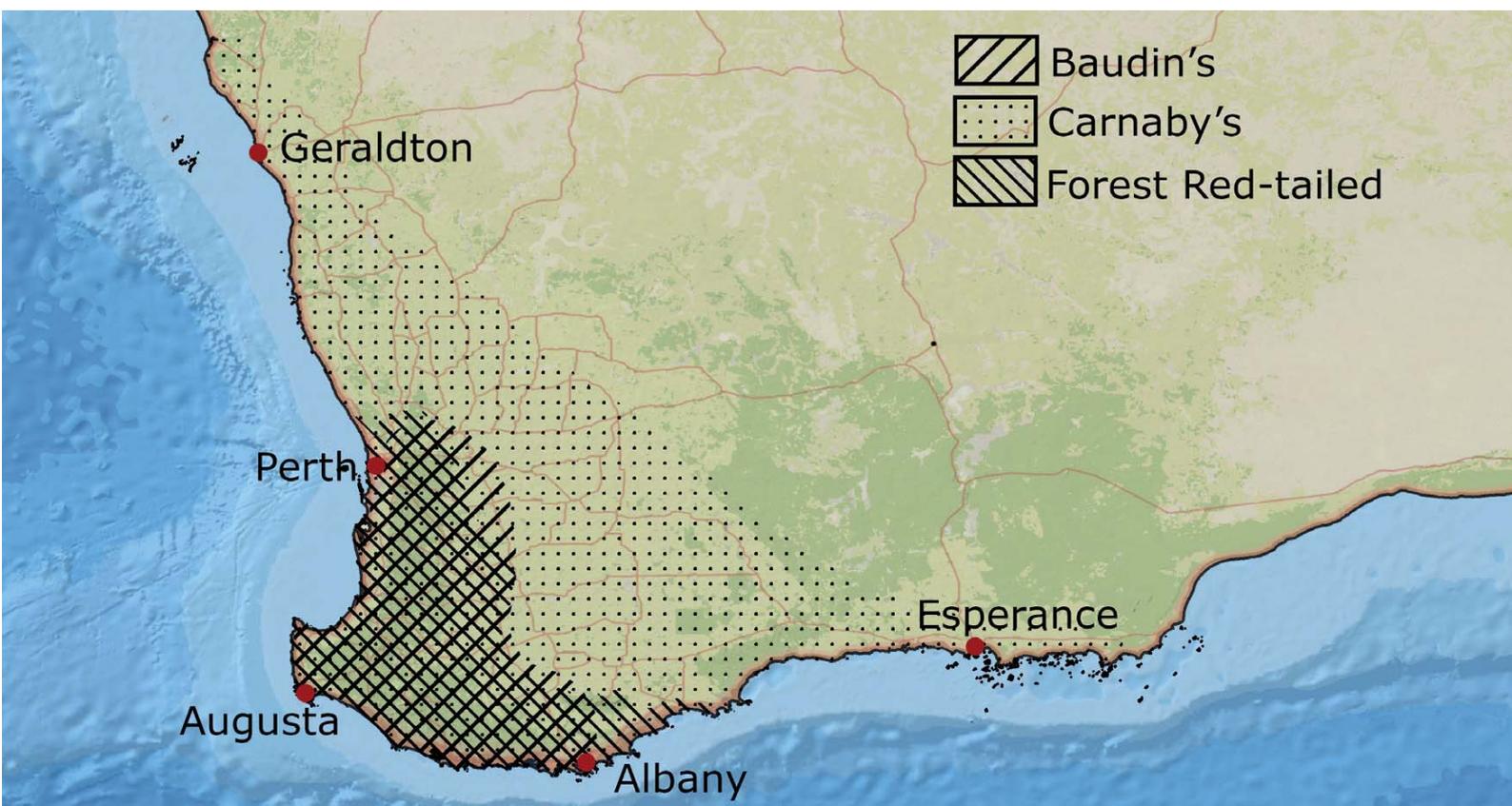
Southwest Black-Cockatoos

There are three species of black-cockatoos that occur only in south-western Australia – Baudin’s, Carnaby’s and Forest Red-tailed Black-Cockatoos. Widespread clearing for agriculture in the years after the Second World War and reduced rainfall in the southwest over this time has put pressure on the bush that remains. As a result all three species are recognised as threatened under both state and federal legislation. But black-cockatoos have been shown to be adaptable.

They can live in excess of 50 years and can learn to adjust to a changing landscape. Part of the key to their survival is in the hands of private landholders. Thankfully, there are many things we can do on private land to help conserve black-cockatoos into the future.



Female Carnaby's Black-Cockatoo.
Photo by Georgina Steytler



This map shows the distribution of all three species of black-cockatoo found in south west Western Australia, and which black-cockatoo will benefit from positive management actions taken on your property.



With the Forest Red-tailed Black-Cockatoo family above left, you can pick the male (left), by his clean, black feathers, compared to the more speckled plumage of the juvenile (centre) and female (right). When it comes to the two white-tailed species, colour of the bill and eye ring to pick the boys from the girls. In the Carnaby's pair above right, the male (left) has a pink eye ring and a dark bill. The female (right) has a dark eye but a pale bill. Photos by Keith Lightbody

Know your black-cockatoos

All three black-cockatoo species are large, stocky birds, and are easy to spot because of their size and loud calls. They are 60cm from bill to tail, much bigger than other parrots such as galahs and corellas.

The species can be told apart by call, appearance, and the way they eat their food.

While these pictures should help provide some simple tips, more information on identifying black-cockatoos can be found on our website: <http://www.birdlife.org.au/projects/southwest-black-cockatoo-recovery>; or in our brochure *Identifying Southwest Black-Cockatoos*. Hardcopies are available from the BirdLife WA office, and an electronic version is on the website.

Their namesake coloured tails are visible when they fly, like on this male Carnaby's Black-Cockatoo (below left). Carnaby's have a shorter bill than Baudin's, and it changes the way they eat their food. The long bill of this male Baudin's Black-Cockatoo (below right) helps him to easily scoop seeds out of a marri, or honky, nut. Photos by Keith Lightbody



What is black-cockatoo habitat?

'Habitat' means all the parts of the environment that black-cockatoos use to live in – where they feed, drink, sleep and nest.

All three black-cockatoo species live most of the year in eucalypt-dominated woodland, but sometimes range further afield to find food. Carnaby's often feed in a type of shrubland called Kwongan Heath – low vegetation dominated by prickly banksia and hakea species.

While black-cockatoos will take grubs and nectar, most of their diet is seed. Native seeds of Eucalypt trees like marri and jarrah, of trees and shrubs of banksia and hakea species are all important food sources for black-cockatoos.

Eating mostly seed, black-cockatoos need to drink regularly. They find water at soaks and pools, dams and troughs, preferring still water to flowing water of rivers and creeks.

Black-cockatoos are social birds, coming together in flocks every evening to roost (sleep) in trees. Roost trees are often located quite close to water sources, so the cockatoos can drink before going to sleep. Black-cockatoos select roost sites containing trees that are generally larger than surrounding trees, with horizontal branches. Both local and exotic tree species are used. Cockatoos will usually return to the same site to roost, over weeks and years.

All three species nest in tree hollows. Big old trees with large hollows are a critical part of the black-cockatoo landscape.



While Forest Red-tailed Black-Cockatoos often stay in the same local area year round, Baudin's, such as this adult female, and Carnaby's Black-Cockatoos of breeding age move seasonally between non-breeding areas and breeding grounds, using completely different habitat at different times of year. Photo by Keith Lightbody

Adapting to a changing landscape



For Carnaby's Black-Cockatoos, such as this adult female, pine plantations are an important food source, particularly in areas where little native vegetation remains. Photo by Keith Lightbody

Black-cockatoos are large birds, capable of flying great distances across the landscape. As a result, they are able to easily cross landscapes modified by human activity, unlike many of our smaller bush birds. So we can see endangered black-cockatoos in our wheatbelt, our wine-growing regions, our agricultural districts, and in our towns and cities.

Black-cockatoos are inquisitive and have tested out many new foods in these landscapes. As a result, cockatoos have adapted to feeding on non-native plants such as pine, commercial fruit and nut crops as well as weeds such as wild radish and wild geranium.

But these new foods are usually only around at certain times of year, so cockatoos can't survive completely in these modified environments. Intact bushland provides them with things that aren't found in these other landscapes – not just year-round food, but also tree hollows to nest in and safe environments to raise chicks in.

In some areas clearing has been widespread and only patches of bush remain. These small patches are vital for cockatoos, and cockatoos will likely disappear from the landscape if these patches shrink further, or decline in quality.

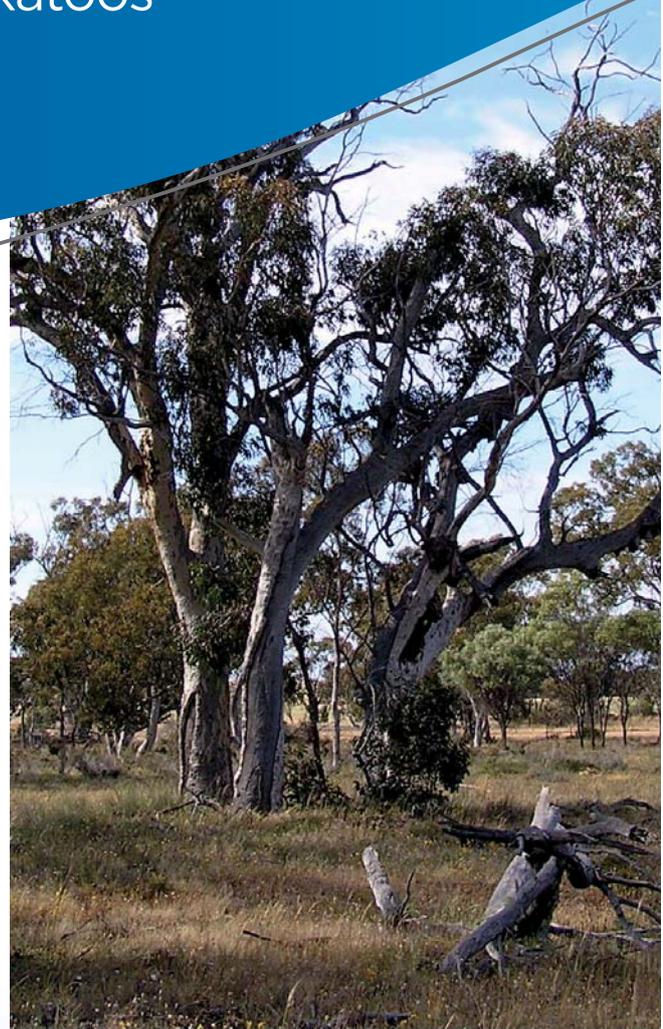


In recent years Carnaby's have been seen feeding on canola seed after the crop is swathed. University research proved that the amount of seed taken is very small and does not negatively affect the cash value of the crop. Photo: Kylie Bishop

Private property and black-cockatoos

Bush-blocks and farms in southern Western Australia play an important role in the long-term survival of all three species of black-cockatoo. Private property provides bush for nesting and feeding, as well as watering and overnight roosting places.

Often, black-cockatoos are dependent on more than one property for these resources. It might be that the cockatoos nest on one property and feed next door, or they might fly further away. Regardless, private land really is an important place for the cockatoos. Landholders, whether they are tree changers, hobby farmers or commercial farmers, all play a critical role in conserving these species.



This White Gum (Wandoo) woodland provides important nesting habitat, even though the understorey is rather weedy. Photo by Leonie McMahon



Carnaby's Black-Cockatoo feeding on a banksia. These shrubs and small trees provide high value forage for the cockatoos. Photo by Raana Scott

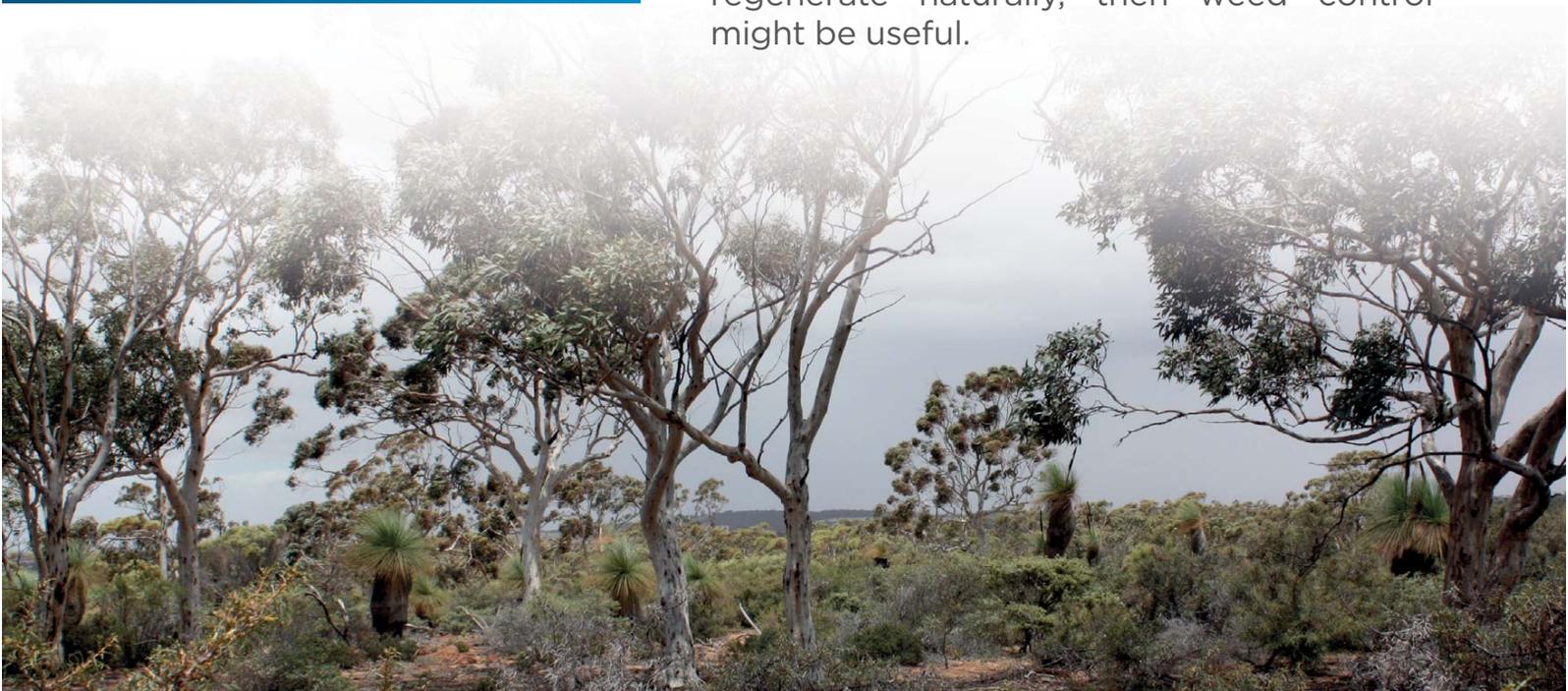
Protecting bush for black-cockatoos

It is always easier to protect than to replace. Natural nesting and feeding habitat is precious. Here are some things you can do to help protect the bush for black-cockatoos on your property:

- Protect known nesting areas by fencing or excluding stock, protecting woodlands against firewood collection, leaving old or dead trees standing and changing fire management to protect mature trees.
- Protect and conserve known feeding areas by fencing or excluding stock and preventing removal of vegetation.
- Control rabbits if you think they are reducing the natural capacity of the bushland to regenerate.
- Consider how your current fire management practices can be adjusted to protect black-cockatoo nest trees, and to regenerate your bushland.
- Undertake weed control in areas of the bush that you think need it. If weeds are spreading and affecting the ability of the bush to regenerate naturally, then weed control might be useful.



Farmers have been conserving bush for generations. Here, an old fence protects bushland from grazing by stock. Photo by Dejan Stojanovic



Wandoo woodland with an understorey of shrubs can provide food and nesting sites for Carnaby's, although these trees are not old enough yet to develop suitable hollows. Photo by Matt Fossey



Growing bush for black-cockatoos

Growing bush for black-cockatoos and other birds and animals is an excellent way to increase the conservation value of your property, particularly where surrounding areas have been extensively cleared. Replanting the right species will provide feeding habitat for cockies within a handful of years, and nesting habitat for the future. If you want to grow habitat for black-cockatoos on your property, there are a few tips to keep in mind:

- Plant more than one species. A mix of species will provide structure (canopy, midstorey, understorey) to the habitat. Different species often produce food at slightly different times, so a range of plant species will provide food across a longer period of time. A mix of species is also more robust against plant pests and extreme weather events.
- Plants from the Proteaceae family (banksias, grevilleas, hakeas) provide cocky food. Plant eucalypts (gum trees) for food and nest hollows. A mix of high-quality seedlings and seed will work best.
- Plant local species. These will be better adapted to soil and climate conditions in your area, and black-cockatoos will be most likely to recognise them as food.

Revegetation to suit every property

- Habitat can be created from the ground up - revegetating bare or fallow ground, from small areas up to several hectares if possible.
- Corridors can be planted to link patches of existing native vegetation. Ideally the corridor should be as wide as possible (tens of metres if practical). This will make a much more effective corridor for wildlife and help protect the plants as they grow.
- Planting forage plants under and around existing trees (even lone paddock trees!) can help improve the productivity of the area.
- You can bolster existing feeding areas by planting near to habitat to increase the total area, fill in gaps or by replanting under canopy trees.
- Feeding habitat close to known nesting sites are critical. While black-cockatoos have been recorded travelling 12 km between nest and feed sites and still raising chicks successfully, the shorter the distance they have to fly, the better. Planting around known nesting areas provides a close food source, but also provides a buffer zone to protect against erosion and wind damage.

More information about black-cockatoo food plants can be found at:

<http://www.birdlife.org.au/projects/southwest-black-cockatoo-recovery/choose-for-black-cockatoos-planting-initiative>

Local NRM groups are also a wealth of information for local species for your soil type and growing conditions.



Using local native plants such as banksias, hakeas and grevilleas will provide food for Black-Cockatoos. Photo by Sarah Mason

A female Baudin's (left) and female Carnaby's (right) Black-Cockatoo share a drink at a garden bird bath. Keeping bird baths topped up, especially in hot weather, helps cockatoos and other birds survive dry weather. Photo by Simon Cherriman



The local watering hole

Black-cockatoos get very little moisture from the food they eat, so need to drink regularly, particularly in hot weather. Often they drink right before going to roost for the evening.

They use of a range of natural and man-made drinking points – soaks, ponds, dams, stock troughs and bird baths. While they seem to avoid flowing water, extremely large bodies of water, and saline water, they will drink from almost anywhere else. They use temporary puddles after rain as well as permanent pools.

Black-cockatoo populations have been observed to disappear from areas after water sources have disappeared. Providing a water point for cockatoos to use, or modifying an existing water point to make it cockatoo-friendly, can prove vital in keeping cockatoos in your local area.



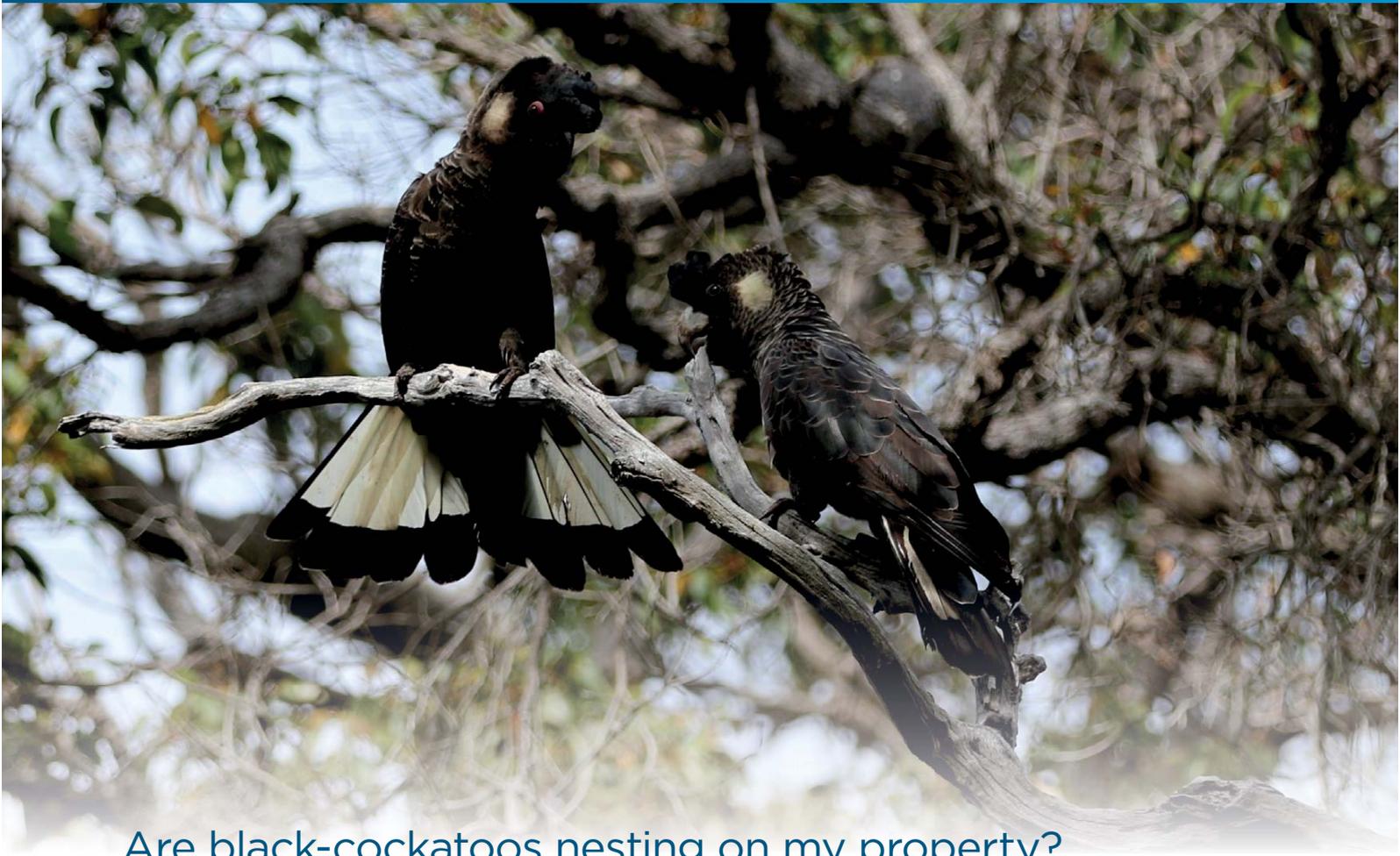
Forest Red-tails gather at a stock trough to drink. Photo by Keith Lightbody

Creating a cockatoo-friendly water source

If you are creating or modifying a water source to make it cockatoo-friendly, think like a bird and keep these things in mind:

- Nearby shady lookout points such as trees or perches will give somewhere for the sentinels to keep watch from, and allow the flock to perch first and inspect for danger before drinking
- Shallow edges of dams or ponds will let birds keep an eye out for predators as they drink
- Troughs with wide, sturdy rims are less likely to damage the birds' feet, or be quickly degraded by strong cockatoo claws and bills
- Keeping water topped up, particularly during summer or if you are going on holiday, will provide a reliable water source for the birds
- Shade near the water will minimise the birds overheating in hot weather
- Keeping the water as clean as possible will minimise any chance of disease spread
- Installing water points away from roads or other hazards will reduce other dangers while drinking.

Black-cockatoos mate for life and strengthen bonds with their partner year-round. Pairs, like this pair of Baudin's Black-Cockatoos, will preen each other, display, call and even investigate potential tree hollows together year-round. So, how can you pick actual breeding behaviour from general black-cockatoo canoodling? Photo by Sue Chick



Are black-cockatoos nesting on my property?

There is nothing quite like the excitement and expectation a new arrival can generate. Having black-cockatoos nest on your property provides a window into their lives, allowing you to witness the lifetime bonds between the pair and their dedication to raising offspring. Beyond this is the pride that arises from knowing you are the guardian of habitat that is nurturing the next generation of a threatened species.

Did you know?

- Black-cockatoos mate for life.
- Female black-cockatoos don't start breeding until they are at least four years old.
- Black-cockatoos nest in tree hollows that form naturally in gum trees, but will use artificial hollows too.
- If a pair raises a chick successfully in a hollow, they will try and use the same hollow again next time they nest. If the chick does not survive, they will try a different hollow, usually nearby.
- Chicks are more likely to survive if food is close by and parent birds don't have to fly too far for food and water.
- Chicks stay with the parents during the first year of their life, sometimes longer.

Tree hollows - a precious resource

Cockatoos nest in tree hollows, with hollows suitable for cockatoos to nest in taking well over 100 years to form. This makes hollow-bearing trees one of the most valuable parts of the cockatoo landscape. Pairs will return to these same areas year after year. Knowing where nests are allows us to work with landowners to better protect them, to bolster good breeding areas by installing artificial hollows, as well as ensuring there are suitable nearby food resources to allow cockatoos to raise healthy chicks.

In all three black-cockatoos, it is the female that sits on the eggs. So during the breeding season, be on the lookout for:

- Lone male birds or flocks of mostly males out feeding. This is a good indicator females are breeding in the area.
- Male cockatoos feeding females. They will be close to the nest tree.
- Females going in and out of hollows.
- Male-female pairs sitting close to hollows.
- Freshly chewed marks around the entrance of hollows.
- Later in the breeding season it might be possible to see a recently fledged bird, complete with a few remaining downy feathers, being fed by either parent.



Left: A pair of Carnaby's on the look out for a suitable tree hollow. Photo by Dejan Stojanovic.

Right: A young Forest Red-tail chick waits in a tree hollow for a feed from one of its parents. Photo by Keith Lightbody

What do nest hollows look like?

Black-cockatoos will use hollows that have formed in the main trunk of the tree, but also those in hollowed-out branches. They can nest in open-topped 'chimney' type hollows as well as tall stumps. Both live and dead trees are used.

Hollows in use, or used recently, by black-cockatoos often have chew marks visible around the entrance. This nibbling is to create woodchips that line the hollow, and can be seen around the outside edge of the hollow, and also potentially on the internal walls, if visible.

If you see a nesting hollow that is being used by black-cockatoos, record as many details as you can and get in touch with BirdLife as soon as possible. We can give you some advice, training and even lend you some equipment to monitor the nest without disturbing the precious occupants. Please don't climb the tree yourself, even if it looks sturdy. Just make what observations you can from the ground.



Female Carnaby's at entrance to a hollow. The chewed areas around the hollow entrance are another good sign that the cockatoos are nesting in a hollow. Photo by Keith Lightbody



Galah at the entrance to a hollow that is otherwise suitable for nesting by Carnaby's Black-Cockatoos. Galahs aggressively take over and maintain hollows and prevent Carnaby's from nesting in them. Photo by Cheryl Gole

Increasing the number of nest hollows on your property

If there are too few nesting hollows on your property, artificial hollows may be a solution. Trials have shown that both Carnaby's and Forest Red-tailed Black-Cockatoos will nest readily in artificial hollows if they are installed in the correct areas and of a suitable design. However, installing an artificial hollow might not always be the best way to help your local population of black-cockatoos. Artificial hollows are a good solution if the following conditions are met:

- Black-cockatoos have historically nested in the area
- There is evidence that the lack of natural hollows is restricting nesting
- Hollows would be installed no further than 6 km away from feeding sites
- There is water nearby
- Hollows are placed in secure locations where you are willing and able to provide the necessary security and maintenance. This means checking that artificial hollows haven't been taken over by feral bees or other species, and that any necessary repairs are done.

Black-cockatoos often face competition for hollows from other species that use hollows to nest in, particularly Galahs and Western and Little Corellas. In addition, feral bees are also an increasing problem in some areas. If you think that galahs and corellas are adversely affecting the nesting of black-cockatoos on your property, you may be able to control those species under a control licence from the Department of Parks and Wildlife. Feral bees are difficult to control and you may require help from a pest control contractor to eradicate them.

Nest installations are best done outside the breeding season, so there is minimal disturbance to any birds which are already nesting in the area.



Most artificial hollows have modifications that make them less attractive to unwanted occupants, while still attractive to black-cockatoos. These include having increased ventilation to deter bees or having an open-topped, 'chimney' design, like this one, to deter galahs, corellas and bees. Photo by Simon Cherriman

Vehicles and black-cockatoos

All three southwest black-cockatoo species are at risk of being struck by vehicles. In fact around 90% of the black-cockatoos admitted to wildlife hospitals are there because they have been injured in a collision with a vehicle.

This happens when the birds are feeding or drinking on the ground, either on the road itself or on the verge. It can also happen when the birds are feeding on low vegetation, such as shrubs, at the side of the road. Black-cockatoos are known to feed on roads and roadsides on spilled grain and woodchips which can fall from trucks. Passing vehicles disturb the birds, and while cockatoos can be acrobatic once airborne, they are clumsy on the ground and are slow to take off and gain the speed and height needed to manoeuvre.



Red-tails drinking from a roadside puddle. Photo by Keith Lightbody

Carnaby's Black-Cockatoos flying out of the path of an oncoming vehicle. The cockatoos rise so slowly into full flight that they are readily hit by vehicles. Photo by Keith Lightbody



As black-cockatoos are threatened species, even small numbers of birds hit and killed or injured can make a difference to the long-term survival of the species. There are a number of things you can do to help:

- If you know of local black spots, encourage your local council to install warning signs for motorists,
- Be aware of flocks of cockatoos gathering on roadsides,
- Slow down if you see flocks of cockatoos on the road or road verge so that they have time to move away, and
- Encourage truck drivers to secure loads of grain so that there is less spillage on the road.

What to do with an injured or dead cockatoo

Injured cockatoos can sometimes be rehabilitated and returned to the wild. If you find an injured cockatoo, only attempt to rescue it if it's safe to do so. Injured cockatoos are in shock and may be aggressive and capable of giving a severe bite or scratch. Cover the injured bird using a large towel, making sure the head is covered. Carefully pick the bird up and place it gently in a secure cardboard box or pet carrier with a second towel lining the bottom. Close the lid or cover the box with a towel and move it to a quiet, dark location. Do not attempt to feed the injured bird.

If you haven't already done so, call the Wildcare Helpline on (08) 9474 9055. The Black-Cockatoo Conservation Centre (Kaarakin) in Perth also offers a 24/7 rescue service for any injured black-cockatoos. Call Kaarakin on (08) 9390 2288.

Dead cockatoos are surprisingly useful for research and all cockatoo bodies should be collected where possible. If you find one or more dead cockatoos, please contact Perth Zoo on (08) 9474 0404 (8am-5pm, 7 days). Attach a label to the foot with details of the date and location found and the name of the collector. Place the specimen in a plastic bag. If you can transport it to the Zoo within 72 hours, refrigerate the body, but if storing it for more than 72 hours, put the dead cockatoo in the freezer.



A dead Carnaby's Black-Cockatoo, struck by a vehicle. Photo by Keith Lightbody



Road sign warning motorists at sites where the cockatoos are at a high risk of being hit. Photo by Cheryl Gole

Keep a record: it makes a difference!

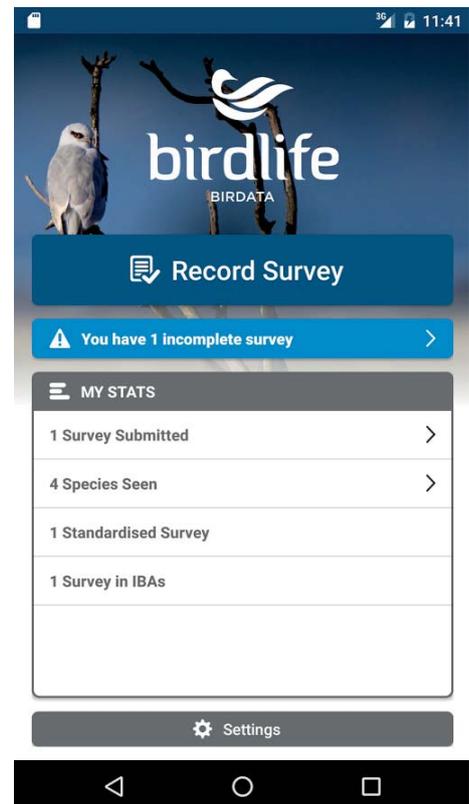
We all know that our memories can be unreliable. Taking the time to jot a few notes down straight away can remind you exactly what you saw, and when.

When it comes to black-cockies, people have used long-term records on their properties to show changes in flock sizes, arrival dates of breeding birds and breeding success. But it doesn't need to be much work.

BirdLife's Bird Conservation Portal is a convenient way of recording and storing observations made on your property and further afield - of cockatoos and other birds. You can use it for both structured surveys and chance sightings. It can keep track of what birds you see when, and you can use it to compare with other observations made nearby. There is a separate part of the portal just for black-cockatoos - providing a way to record important habitat features the birds are using - water points, potential nesting trees etc. The portal is called Birddata, and it has both a website and a phone app, for observations made on the move. You can access and sign up for Birddata at <http://birddata.com.au>

If you want to talk about what you've seen, don't hesitate to email or phone us. And if you are part of a community group that would like to start some regular monitoring in your local area and would like some advice, we are happy to assist in any way we can.

Birddata has a mobile phone app - an easy way to keep track of bird sightings when you are on the move. It is a free app on both Android and Apple devices.



Helping us to help black-cockatoos

Would you like to help us find out more so that we can do more to conserve the cockies?

You can help monitor nesting Black-cockatoos. You can also help by allowing BirdLife Australia's volunteers to visit your property and record those details for you. Nest surveys identify the numbers of active trees and hollows on a property. This provides us with better information of where the birds are in the breeding season. If done properly every year, we can begin to learn whether local populations are doing well or not.

To participate in BirdLife Australia's annual nesting surveys, or to ask if nesting surveys can be done on your property, email wa@birdlife.org.au or call (08) 9383 7749.

Find out more

To let someone know about black-cockatoos nesting and feeding on your property, and to find out more about how to look after them and perhaps help monitor them, email wa@birdlife.org.au

Cocky Notes is BirdLife Australia's regular newsletter about the latest news and happenings with our southwest black-cockatoos and what's being done to help save them. It is available in print or by email. To get on the mailing list, email wa@birdlife.org.au or call (08) 9383 7749.

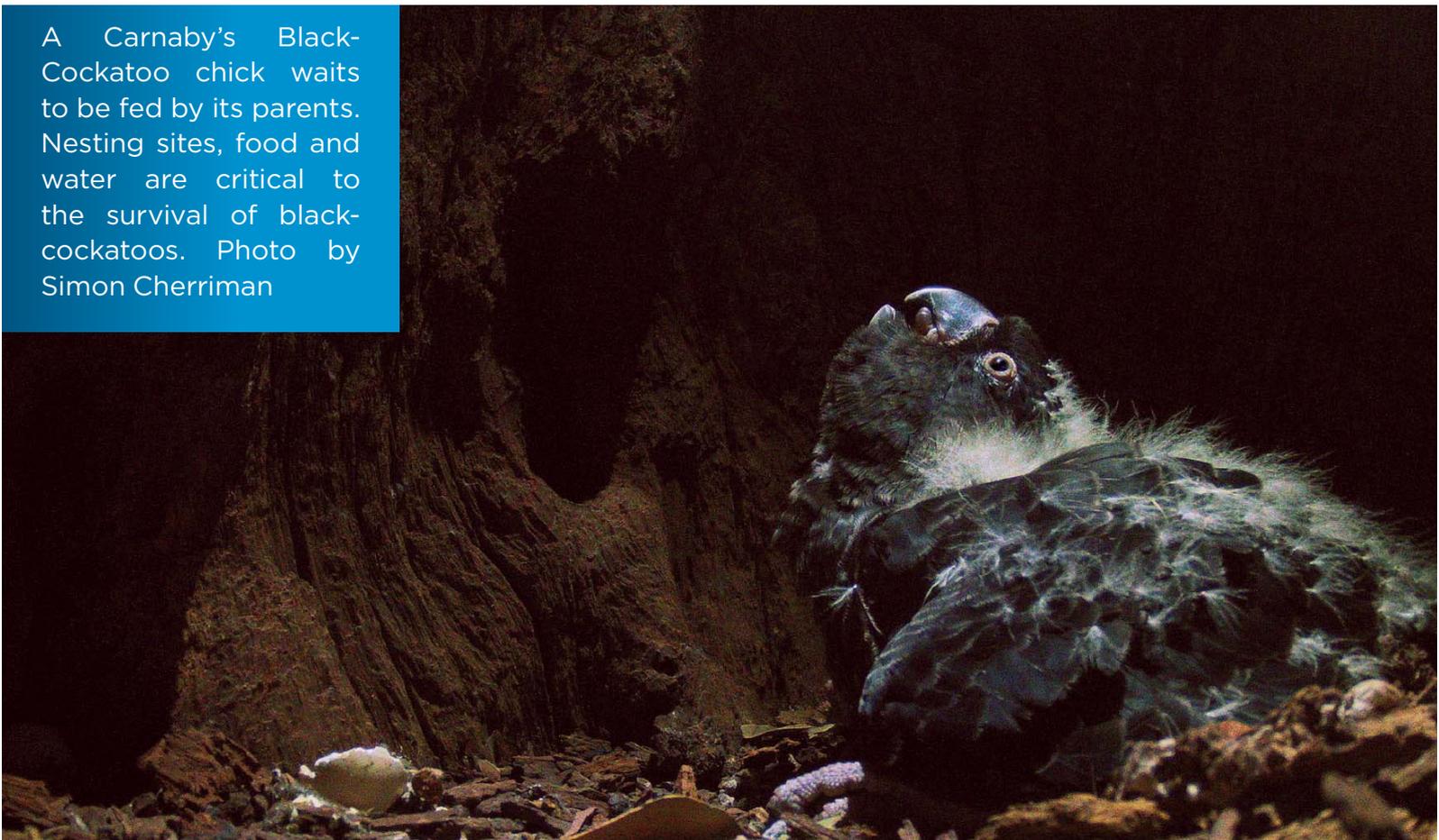
For information about Black-Cockatoos and BirdLife Australia's Southwest Black-Cockatoo Recovery Program, use the QR code or go to BirdLife Australia's website: www.birdlife.org.au/projects/southwest-black-cockatoo-recovery



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A Carnaby's Black-Cockatoo chick waits to be fed by its parents. Nesting sites, food and water are critical to the survival of black-cockatoos. Photo by Simon Cherriman



BirdLife Australia is Australia's oldest conservation organisation, and the only one focused on our native birds and their habitats. With over 100 years of experience across our unique and varied landscapes, we are the heart of bird research and conservation in Australia. With our specialised knowledge and the commitment of an Australia-wide network of volunteers and supporters, we are creating a bright future for Australia's birds. New members and supporters are always warmly welcomed.

Black-cockatoo conservation is an important part of BirdLife Australia's work in Western Australia. We have the longest-running, community-based black-cockatoo conservation project in the state, and have been working with landholders, land managers, communities and government to better conserve and manage these species since 2000. The Cockies in Crisis project is funded by Lotterywest.

Photographs: Front cover by Simon Cherriman, inset by John Lauri; back cover by Keith Lightbody



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BirdLife Australia
167 Perry Lakes Drive, Floreat, WA 6014
T (08) 9383 7749 | wa@birdlife.org.au

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