

Cocky Notes

Issue 31: Winter 2020

GREAT COCKY COUNT

As many of you will know, 2020 was the GCC that wasn't. It was very sadly cancelled six days before the event. After five months of careful planning, 700 volunteers registered and 380 sites allocated it all came a cropper due to Covid-19 related risks. In hindsight we should have moved the event forward, but things changed so fast it was hard to predict the ramifications. Nevertheless, some committed volunteers still surveyed in a safe manner either before, on or after GCC day. I'd like to thank them all from the bottom of my heart, it meant a great deal to me.

Site	WT	FRT	Site	WT	FRT
ALBKALR004	963	0	CANRIVR001	0	22
SWAELLR001	931	0	SERJARR004	20	0
DANDANR001	759	0	JOOPADR001	20	0
MNJMNJR001	600	0	PLAPORR003	5	15
DANJURR001	473	0	BUNCOLR001	14	0
WANGNAR001	453	0	ROCKARR002	0	12
BRIGLER001	400	0	SWAGIDR010	0	7
CAMFLOR001	372	0	SERDARR001	5	0
SERKEYR003	341	0	MUNMUNR002	0	5
GINGINR001	341	0	TOOMORR002	0	5
TOOMORR001	240	2	MUNMTHR003	4	0
NEDNEDR001	225	0	MUNHEL002	0	4
MUNPARR004	162	0	COCHAMR002	0	0
COCSPER001	100	0	BODBODR002	0	0
STIYOKR003	0	94	DAREATR001	0	0
HARSUNR001	73	13	KALFORR003	0	0
CAPBOYR001	70	16	CAPGWIR002	0	0
DONNOGR001	0	64	BRINORR002	0	0
BRIGRER004	48	15	STINORR001	0	0
SWABULR002	60	0	KALHIGR001	0	0
NEDNEDR003	44	0	SERSERR003	0	0
BRIGRER003	12	25	AUGMARR012	0	0
AUGGRAR002	23	10	CAPGWIR001	0	0
NANNANR004	12	15	AUGFORR002	0	0
BUSCARR001	24	0			

This table shows the counts from GCC day, sorted from highest to lowest counts. In total 49 sites were surveyed, with 21 occupied by white-tailed (WT), 8 by Forest Red-tailed (FRT) and 8 jointly occupied; 12 sites were unoccupied. The total count was 6,794 WT and 324 FRT. Save the date: **Sunday March 28, 2021** is the date for the next GCC!

REVEGGNANGARA



RevegGnangara planting group
Photo: Adam Peck

On July 2 and 3 groups of volunteers helped to plant the 10,000 seedlings bought with funds raised through the RevegGnangara crowd funding campaign. We're proud to say that 100% of the \$18,000 went towards seedlings! DBCA Swan Coastal District staff led the team and planted all the seedlings that we didn't have time to plant. They had also furrowed the site to prepare a weed free water catchment for the seedlings. Previous results show over 90% success rate with this method, so with the good rainfall we've had this should be achieved. Pine trees were being harvested nearby as we planted. We are again calling on the McGowan government to roll out a similar planting project on a much larger scale in order to halt the decline of Carnaby's Black-Cockatoos. Watch this space!

Adam Peck
Black-Cockatoo Project Coordinator

CHEMICAL SPRAYS MAY POISON CARNABY'S COCKATOOS

Since 2003 there has been a dramatic decline in the number of breeding Carnaby's Cockatoos at Koobabbie from roughly 30 breeding pairs in 2006-07 to about 5 or 6 pairs in recent years; the decline has been sudden and is due to significant mortality events at Koobabbie (Figure 1). This decline has previously been reported in Saunders et al. (2014). It is possible that these mortality events were due to poisoning. Carnaby's nesting has been intensively monitored in October/November at Koobabbie farm near Coorow every year from 2003 to 2019. There are over 80 hollows at Koobabbie that have been used by Carnaby's over this time, and therefore are considered suitable for breeding. Removal of competitors is regularly undertaken at Koobabbie to ensure that these hollows are available to Carnaby's Cockatoos for breeding (Saunders and Doley 2017). Over the 16 years of surveys at Koobabbie, feral bees have only been recorded once in one hollow. Monitoring has used ladders in the past and more recently cameras on poles to inspect hollows, so the breeding information is reliable. Few of the suitable hollows are now occupied by Carnaby's or any other birds. Unfortunately, despite concerted efforts by Alison Doley and dedicated volunteers to repair hollows, erect artificial hollows, remove competing bird species and conserve remnant native vegetation, the Koobabbie breeding population appears headed towards local extinction.

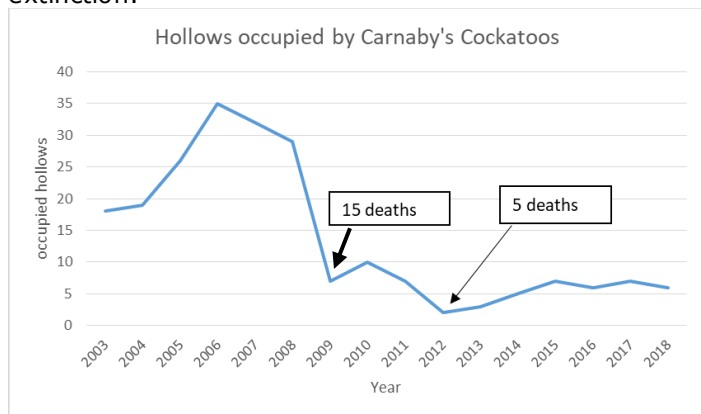


Figure 1. Number of hollows occupied by breeding Carnaby's Cockatoos at Koobabbie from 2003 to 2018.

At Koobabbie in the 2009 nesting survey there were 11 dead Carnaby's females in hollows, with another four dead hens nearby and 5 hollows with abandoned eggs. In 2012 there were 5 dead females in hollows and one hollow with abandoned eggs.

So what caused these deaths? The dead birds in 2009 had been dead for too long to determine the cause of death. There was adequate water and native foods nearby. Canola and wild radish was also plentiful in close vicinity. There were no extreme heat events over this time. Disease does not kill birds so quickly and testing of dying birds in 2012 was negative for Newcastle disease virus, Avian influenza virus, beak and feather disease virus, avian polyomavirus, *Chlamydia psittaci* and avian adenovirus (Saunders et al 2014). Toxicological results were negative for all 72 toxins that were tested. Gut content examination was inconclusive. Organophosphate insecticides (OPs) were used in the area on canola crops

at this time of year but these did not show up in the bird's tissues. However OPs may have degraded prior to analysis and although a 72 toxin suite was tested there are many other OPs that were not tested (eg leptophos, fenthion, merphos and dichlorofenthion). OPs are unavailable to the general public due to their toxicity (to humans) but are still widely used in broadscale agriculture, particularly canola production. The clinical signs of one of the birds prior to death (weakness/paralysis) are consistent with OP and diquat poisoning. Diquat was not one of the poisons tested.

Diquat is a herbicide sometimes used in Western Australia to kill canola crops prior to harvest to synchronise seed ripening. The active ingredient is Diquat dibromide. It bonds strongly to mineral and organic particles in soil and water, where it remains without significant degradation for years. Diquat dibromide is moderately toxic and ranges from moderately toxic to practically nontoxic to birds, depending on the species. Signs of poisoning in these birds included instability, wing-drop and lack of movement (Hudson et al 1984). Diquat has recently been banned by the EU Commission over concerns about its toxicity to bystanders, residents and birds (Farmers Guardian News 15 October 2018, Marianne Curtis).

A drying climate has also been implicated in the decline of Carnaby's Cockatoos in the wheatbelt but this does not explain the mass death events at Koobabbie. A decline in Carnaby's nesting numbers has also been recorded over other surveyed nest sites in the wheatbelt over the last decade, with BirdLife data showing average breeding attempt rates of 52% from 2004 to 2011 and 16% from 2012 to 2019. Nine breeding sites in native vegetation remnants in the Coorow area were active in the early 2000's but are no longer monitored due to total absence of breeding Carnaby's since 2014. Carnaby's commonly eat canola seed and it is possible that if the cockatoos eat seed on crops that have recently been sprayed with diquat or pesticides, they may receive a lethal dose. Canola is ripe over the same period as the birds are nesting and feeding their chicks.

Similar multiple mortality events have been reported at Moora and again insecticides and herbicides are suspected (pers com. W. Kerkhof). Multiple deaths of Carnaby's Cockatoos are unlikely to be seen in unmonitored areas and were only picked up at Koobabbie and Moora by dedicated volunteers and researchers. It may be occurring elsewhere in the wheatbelt. Hindlimb paralysis syndrome of Carnaby's Cockatoo was reported for 2012, 2013 and 2014 and is also likely due to poisoning from crop pesticides in agricultural areas however the definitive cause is unknown (Le Souef et al. 2020).

It is difficult to prove that these deaths were caused by herbicide/insecticide poisoning but it does seem possible. I believe that poisoning is now having a significant impact on Carnaby's Cockatoo numbers in the wheatbelt of Western Australia. Carnaby's have adapted to introduced high energy, high oil content foods, particularly pines and more recently canola. However canola, unlike pines, uses large amounts of insecticides and herbicides in its production. Frequent ingestion of large amounts of canola by Carnaby's may lead to poisoning events unless current agricultural methods are altered.

Obviously there are many factors contributing to the decline of Carnaby's Cockatoos and it is important we address and try and minimise each factor. Poisoning may be one of these factors but interestingly is not mentioned in the Carnaby's Cockatoo Recovery Plan (DEC 2012). I think it is important we recognise poisoning as a threat and consider ameliorative measures. So what can we do to reduce the risk of poisoning?

Farmers

All farmers I have spoken to are keen to help prevent the ongoing decline of Carnaby's Cockatoo and many have protected remnant native vegetation, erected artificial nest hollows and planted Carnaby's Cockatoo friendly plant species. As owners and custodians of very large areas of our land, many farmers want to ensure that our natural biodiversity is not lost due to agricultural practices.

Farmers who grow canola should consider their method of harvesting and if possible carry out direct harvesting of the ripe crop. Another method used is called 'swathing' where the canola is cut, windrowed and left to dry and then subsequently picked up and harvested. Both these methods avoid the use of diquat herbicide. If possible insect pests should be sprayed earlier in the crop cycle, before the crop is ripe, which is when Carnaby's Cockatoos feed on canola. Alternatives to OPs should be considered such as pyrethrin based insecticides if they are suitable.

Non-Farmers

Talk to friends and family who are canola producers and ask them if there are ways to alter their practices to make them more Carnaby's Cockatoo friendly. As a child growing up in Perth's southern suburbs in the 1960's I remember flocks of 100's of Carnaby's Cockatoos would fly over to herald approaching rains. They would blacken the sky. Now I am excited when I see a flock of 10 or 20 birds. I hope we will see large flocks again.

Acknowledgments

The late Alison Doley has championed the Carnaby's Cockatoo cause at Koobabbie for decades. John Lauri has driven the nest monitoring at Koobabbie every year since 2003. Adam Peck, Denis Saunders and Peter Mawson made comments on drafts of this paper.

This article was written by BirdLife volunteer Dr John Koch and edited by Adam Peck.

OPERATION RAINBOW ROOST

In 2019/2020 Lotterywest funded the ongoing summer Rainbow Lorikeet roost counts in Perth. BirdLife's volunteer network has now counted Rainbow Lorikeet roost sites for four years. During February 2020 we counted 15,234 lorikeets at 72 roost sites (Figure 1). This was the biggest number of roost sites we have counted to date!

However, more lorikeets were counted in February 2018 when only 55 roost sites were counted (Figure 1). Summer 2017/18 was a very wet season which would have assisted flowering during summer to provide food to chicks born in spring 2017. This should have assisted survival of chicks through the summer.

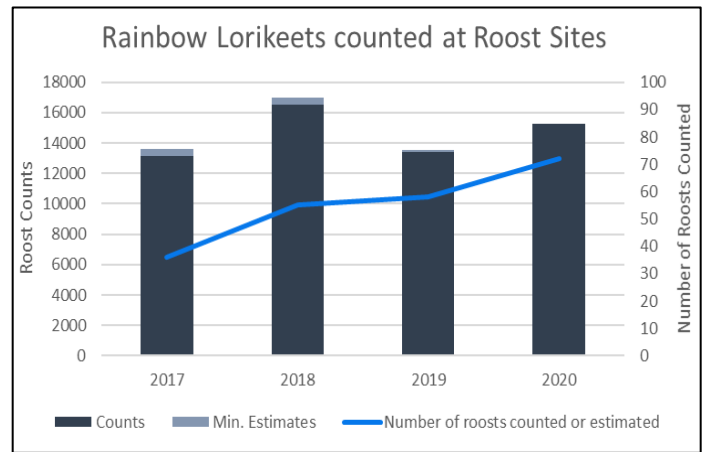


Figure 1: Number of Rainbow Lorikeets counted at roost sites in the past 4 years.

The data collected from sites that has been counted for 4 years indicate there may be a correlation between the number of lorikeets counted at roosts in February and summer rainfall (December to February). However, only with further summer roost counts can we be sure that this is a factor in the number of lorikeets arriving at roost sites. Thanks to our many volunteers who assisted with reporting Rainbow Lorikeet roost sites and counted lorikeets at their roosts!

Robyn Pickering, ORR Project Coordinator

GUMNUTS FOR ZANDA

Kaarakin Black-Cockatoo Conservation Centre is located in Martin, close to Roleystone. The Centre is a specialist wildlife centre, dedicated to the rescue and rehabilitation of sick and injured wild native black-cockatoos. It is the only facility dedicated to the conservation and rehabilitation of black-cockatoos in Australia. The numerous negative impacts of fragmentation and loss of black-cockatoo habitat have put them at continual risk of poor health, illness, and injury. For this reason, Kaarakin understands the importance of revegetation and has undertaken numerous planting projects since the centre's establishment.



Carnaby's feeding on *Hakea laurina*
Photo: Scott Sokolenko

Last year, just over three thousand native seedlings were planted across 2 hectares at a site located about 1.5km away from Kaarakin as part of a revegetation project, Gumnuts for Zanda. The site chosen to be rehabilitated was a former orchard. A recent trip to the site revealed that those seedlings are now established and doing incredibly well, surely helped by the installation of reticulation (kindly donated by a Kaarakin volunteer). The project was possible because of a grant from the Natural Resources Management (NRM) Program.

This year, a revegetation project has been funded by the Australian Government Community Environment Grant (CEG) as a means of reintroducing vegetation to barren areas within the Kaarakin site. The project will be important in future, not only because the site will provide food to local wild black-cockatoos, but also to the rehabilitating black-cockatoos on site (vegetation can be used for foraging and perching materials). The first couple of hundred seedlings (kindly donated by Friends of Kings Park) were planted in early May this year by only a handful of volunteers due to COVID-19 gathering restrictions. Thankfully by the next planting day (16 May), we were able to expand the number of volunteers who could partake in planting 500 donated seedlings (by Colleen from 15 Trees who covered the costs of the seedlings from Muchea Tree Farm). Thanks to all the volunteers and Kaarakin staff who have lovingly assisted in transforming a large area of the Centre. These revegetated areas are now full of potential habitat that seems to have immediately attracted more bird life to them. All the seedlings for the project are natives, with the majority being endemic to the area, specifically chosen to provide foraging habitat to black-cockatoos and other resident animals.



Kaarakin volunteer and land owner of Gumnuts for Zanda site Kathy Burns. Photo: Kaarakin

1,500 seedlings (donated by BirdLife Australia as part of their Alcoa Foundation supported project) were planted on 18 July with the help of volunteers. The area will also need to be mulched to aid in suppressing weeds as well as to retain moisture, especially during summer. Please email candice@kaarakin.com if you are interested in participating.

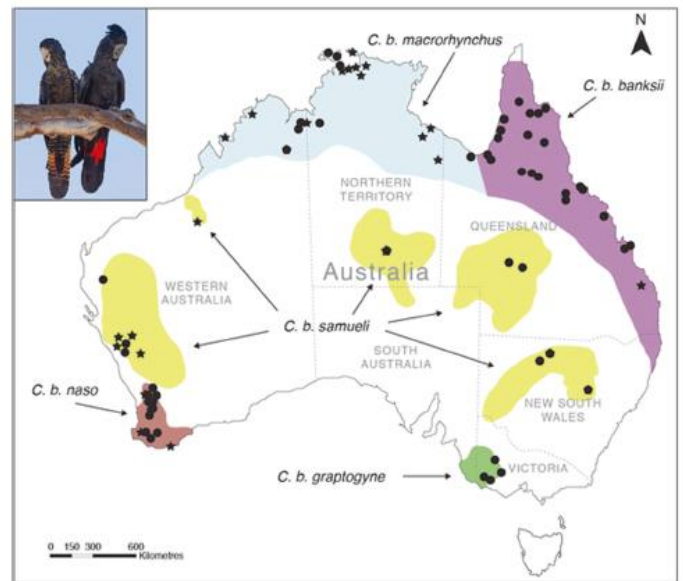
Kaarakin is currently home to approximately 200 black-cockatoos at various stages of rehabilitation. It is a not-for-profit organisation and relies on volunteers and donations as well as paid private tours and other fundraising events to continue the rescue and rehabilitation work. If you would like to see how you can support Kaarakin, visit [here](#).

Candice LeRoux, Kaarakin Board member



NEW COCKATOO!

Taxonomists recently named a new subspecies of Black-Cockatoo. Formerly known as *Calyptorhynchus banksii subsp. samueli*, the new subspecies is now called *Calyptorhynchus banksii escondidus* (from the Spanish term for hidden). Many people know this bird as the Inland Red-tailed Black-Cockatoo and may have seen their flocks in the northern Wheatbelt, Gascoigne and Pilbara regions. It was formerly lumped in with eastern populations, but gene sequencing has shown that it is different enough to be split into its own taxa. For more details follow [this link](#).



This map shows the distribution of Red-Tailed Cockatoos
Credit: Ewart et al. 2020

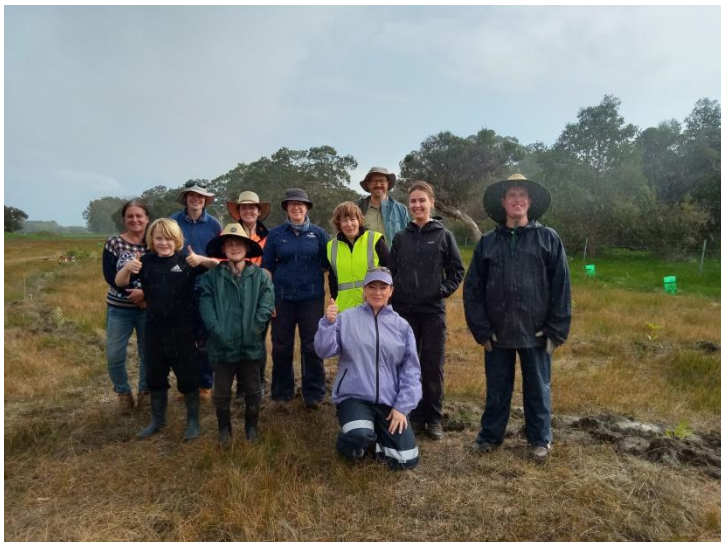
WE'RE HIRING!

A new position is currently available to work on Black-Cockatoos. This is a great opportunity to take the reins of The Great Cocky Count! The 18 month contract will be at 0.6 FTE and based in Perth. See [this link](#) for more details, applications close on Monday, August 24.

ALCOA COMMUNITY BLACK-COCKATOO RECOVERY PROJECT

With the support of the Alcoa Foundation and Alcoa of Australia, BirdLife and project partners including Alcoa (Wagerup Refinery), Peel Harvey Catchment Council, the Harvey River Restoration Taskforce, numerous private property owners and community volunteers were busy over winter planting 12,500 plants that will provide food species for Black-Cockatoos into the future. The planting was strategic focusing on connecting habitat on the southern Swan Coastal Plain between reserves (Nine Mile Lake, Buller and Lowlands) and the scarp, where significant habitat has been lost due to land clearing. Species were planted to accommodate all three species of Black-Cockatoo, and included Marri, Jarrah, Sheoak, Wandoo, and local banksia and hakea species. Planting happened across sites at Yarloop, Coolup and West Coolup, Keralup, North Dandalup and Mardella. At a site in Yarloop, we were visited daily by a small group of Red-tailed Black-Cockatoos and were happy to be adding much more food for them across the 8ha site. With all the recent rain, the seedlings will have a good start to getting established.

Many thanks to all our project partners, the land holders that are so passionate about conserving Black-Cockatoos and the environment in general and the volunteers that helped us to successfully get all the plants in the ground. Many thanks also to Trillion Trees and Natural Area Management for the high quality seedlings. If you would like to help out by planting food species for Black-Cockatoos in your backyard, go [here](#).



BirdLife volunteers and staff brave the rain to plant seedlings in Coolup, July 2020

COCKY WATCH

CockyWatch is a citizen science road transect survey for Black-Cockatoos that will assist in better estimating and tracking changes in populations of all three threatened Black-Cockatoos species across their southwest range. The method involves recording Black-Cockatoos seen as you drive a pre-determined transect, recording the start point, end point and the numbers and distance of flocks

of birds from the road. It can be a fun family exercise for long journeys.

Over 560 surveys have been submitted covering a total distance exceeding 62,000 kms and this is helping us to compare densities of birds across different regions. But more surveys are needed, as with most monitoring programs, reliable data and population estimates come from years of monitoring. More surveys north of Perth toward Geraldton and out east of Northam, Brookton and Williams are particularly required.

This year has seen a lull in surveys due to travel restrictions earlier in the year with the Covid pandemic. But in recent months surveyors have been getting back out there and recording birds. The largest flock so far recorded is 350 Carnaby's near the Stirling Ranges.

COCKYWATCH NOW ON BIRDATA! Making it even easier to record and submit surveys using your phone. Check it out at: <https://birdata.birdlife.org.au/>. For instructions and data sheets (for those who prefer to record on paper), please go to our website at: <http://birdlife.org.au/projects/southwest-black-cockatoo-recovery/cockywatch>

Some quick tips on surveys:

1. Decide to do a survey before you start your trip, so you can zero your odometer (and accurately measure your distance) and record your start location;
2. Surveys are easiest to do when you have a passenger who can record birds as they are seen. If you are by yourself it is ok to safely stop to capture your records;
3. Submitting forms when you see no birds is just as important as when you see and record birds. This is very important to capture the survey area and effort of our citizen scientists, so that densities of birds can be calculated;
4. Surveys greater than 20km distance are preferred;
5. Surveys can be done any time of day and any time of year. It is also very useful to conduct repeat surveys of the same transect over the year, to capture seasonal changes in locations of birds.
6. Don't worry if you cannot distinguish Carnaby's and Baudin's, as there is the option to record White-tail (WT)

We look forward to receiving your surveys and many thanks to those who have and continue to submit surveys. Your contribution is highly valued. Coordination of this program is possible due to the support of the Alcoa Foundation.

Vicki Stokes,
BirdLife WA Program Manager

THE COCKY CONSERVATION TEAM

Adam Peck, Black-Cockatoo Project Coordinator

Adam works on all things Black-Cockatoo related - from running the Great Cocky Count, to coordinating Black-Cockatoo breeding season surveys and raising awareness to making sure the voices of our cockatoos are heard. If you would like to volunteer to assist with these projects or if you know where Black-Cockatoos feed, drink, nest or roost for the night please contact adam.peck@birdlife.org.au or (08) 9287 2251.

Vicki Stokes, WA Program Manager

Vicki is our Perth-based manager for BirdLife Australia's WA funded projects, including the Southwest Black-Cockatoo program. Contact Vicki for questions about the program at vicki.stokes@birdlife.org.au or (08) 9287 2204.

Cocky Notes is published with funding from The Alcoa Foundation. The Southwest Black-Cockatoo Recovery Program is funded and supported by a number of organisations, including State NRM and those represented here:



natural resource
management program



Department of Biodiversity,
Conservation and Attractions



HAD A CHANGE OF ROOST?

If you've moved homes or changed email addresses, or if you don't want to receive Cocky Notes in the future, please let us know at wa@birdlife.org.au

KEEP UP WITH THE FLOCK!

The Southwest Black-Cockatoo Recovery Program is on social media! Keep up to date with all of the latest cocky happenings:



Southwest Black-Cockatoo Recovery
Community



@blackcockatoos

Australia's voice for birds since 1901

BirdLife Australia is dedicated to achieving outstanding conservation results for our native birds and their habitats.

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.

facebook.com/BirdLifeAustralia
 @BirdlifeOz

birdlife.org.au

Add your voice

join us

Enjoy the rewards of membership, making a real difference for our native birds

volunteer

Contributing your time is one of the most effective ways to help

donate

Help us create positive outcomes for birds and their habitats