Red-tail News

Issue 53 December 2021

WELCOME TO EDITION 53 OF RED-TAIL NEWS.

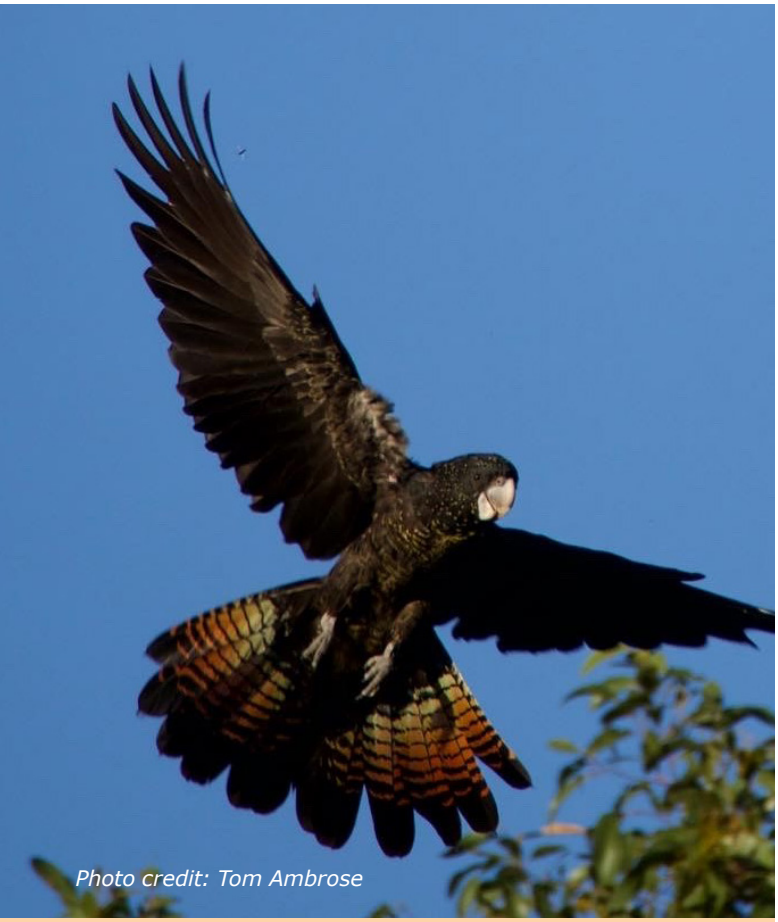

Photo credit: Tom Ambrose

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Welcome to the festive season edition of Red-tail News, 2021.

Hello! I'm Skye McPherson, the new coordinator for the South-eastern Red-tailed Black-Cockatoo Recovery Project. As some of you would be aware, I have been charged with filling the shoes of Kelsey Bennett. I'd like to thank Kelsey for leaving the project in such great shape and wish her all the best for her future endeavors.

I was absolutely thrilled to be offered this coordinator role and am very excited to work towards a brighter future for the South-eastern Red-tailed Black-Cockatoo. I've always had a passion for the environment (and a special place in my heart for birds). Over the years I have been lucky enough to work for some great organisations such as Conservation Volunteers Australia in Victoria, Parks and Wildlife in WA and the Limestone Coast Landscape Board in SA. I have also had some great volunteer opportunities and it's a toss-up between monitoring loggerhead turtles in Greece and researching NZ fur seals on the South Island of New Zealand for volunteering highlight.

I hope this newsletter finds you happy and healthy in these strange and difficult times. COVID-19 has again created challenges for the recovery project in 2021, as I'm sure it has for many of you. Fear not though, not even a pandemic can stop Recovery Team members from working hard and achieving some great on-ground outcomes for Red-tails.

In this edition of Red-tail News, we hear from some fantastic contributors to Red-tail recovery, including Dr Daniella Teixeira with the bioacoustics results from the 2020/21 breeding season and Dr Richard Hill with the latest flock count results. We also have an article by Jack Carter from Australian Bluegum Plantations (ABP) Forestry and Conservation who explains how ABP is protecting and promoting the ongoing nesting of Red-tails. There are also updates from members of the Communities Helping Cockies Team and Oliver Wardle from Melbourne University outlining an exciting Masters in Bioscience project.

On behalf of the Recovery Team, I'd like to wish everyone a safe and happy festive season, and I hope you enjoy reading this sensational edition of Red-tail News.

Thanks, Skye

REWARDS ON OFFER AGAIN TO FIND NESTING COCKATOOS

The Red-tailed Black-Cockatoo Recovery Team and BirdLife Australia are again calling on landholders and members of the public this year to report all sightings and nest activity of the endangered South-eastern Red-tailed Black-Cockatoo (SERTBC).

Since 2011, nest incentive payments have been offered to the public for information on new and existing cockatoo nest sites across its range in the south-east of South Australia and south-west of Victoria. More than forty new nests have been discovered through the scheme, with the Recovery Team keen to find more nests during the upcoming breeding season, which will be at its peak September 2021 to March 2022. It is important to find nests so young birds can be protected from predators such as brush-tail possums and to better understand what the birds need to raise their chicks successfully.

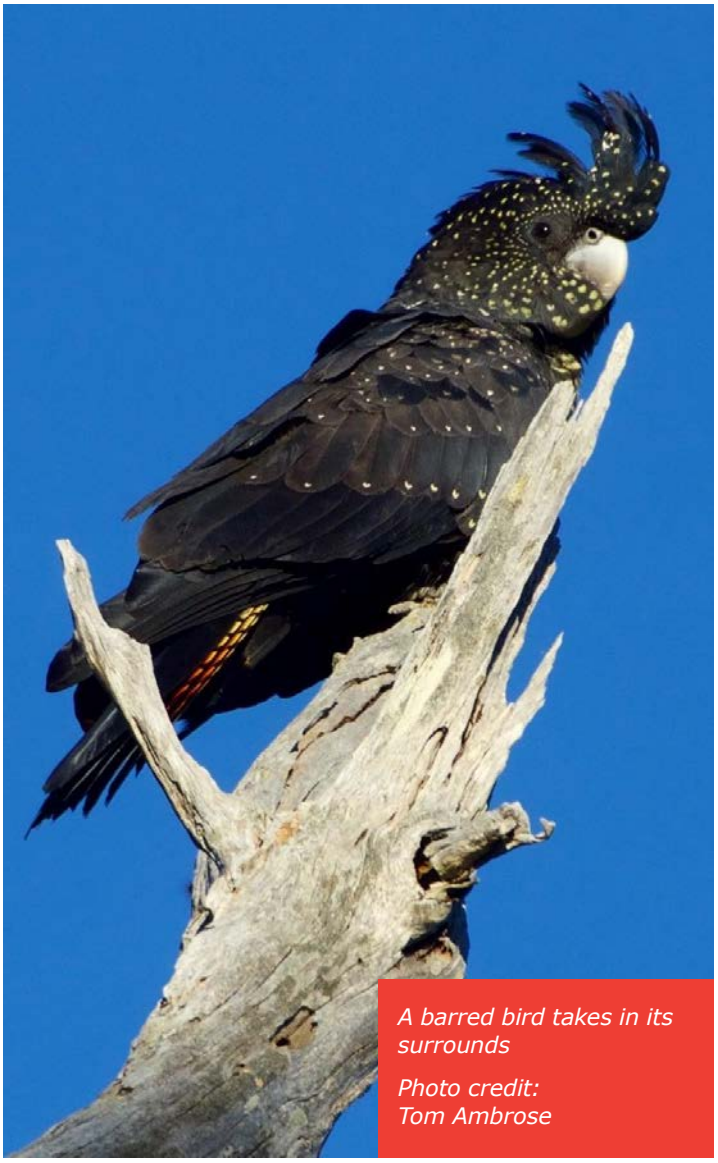
Payments of $500 will be offered for information which leads to the discovery of new nests.

Red-tails nest in large hollows (15-50cm), which most often occur in very old, large eucalypts such as River Red Gums. Nest hollows can be in dead or live trees, with most nests occurring within about 3km of stringybark habitat.

Many landholders are understandably concerned about the impact of discovering a nest on their property. The Recovery Team would like to assure everyone that there is no negative consequences involved with reporting a nest, as we simply want to monitor and protect it.

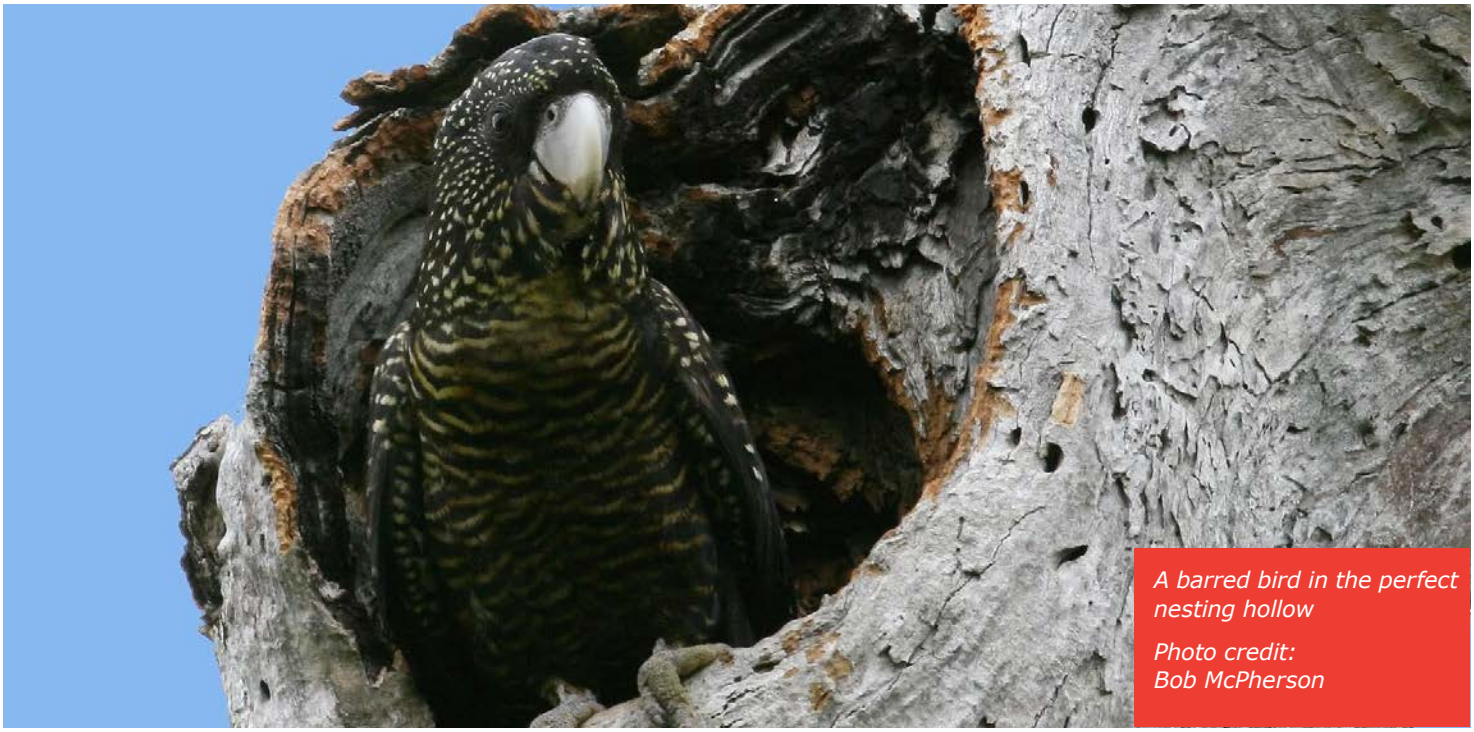
We are asking anyone that sees Red-tails or observes nesting behaviour to report their findings by calling 1800 262 062 or email redtail@birdlife.org.au. All we need is the date and time of sighting, number of Red-tails, the location (coordinates preferably), and what the birds were doing (ie feeding, flying, drinking etc). We are particularly keen to hear from anyone who sees single adult males or pairs of Red-tails coming into water or trees with large hollows, as these are indicators of nesting birds.

Incentive payments are issued once the sighting has been confirmed by a Recovery Team member. Guidelines for the nest incentive scheme and information on Red-tail nesting behaviour are available on our website www.redtail.com.au.



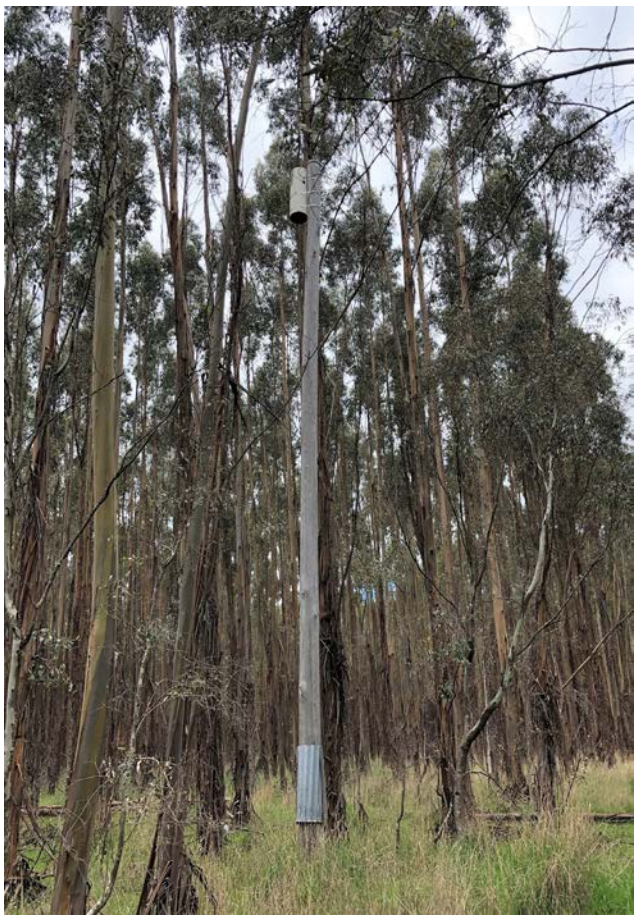
A barred bird takes in its surrounds

Photo credit: Tom Ambrose



A barred bird in the perfect nesting hollow

Photo credit: Bob McPherson



RTBC artificial nest on a pole in ABP plantation north of Casterton
Photo credit: Jack Carter

AUSTRALIAN BLUEGUMS AND REDTAILS

One of ABP's plantations, located north of Casterton is a known Red-tail breeding site. This site has a number of artificial nests on old telephone poles installed across the site, with at least nine successful Red-tails fledging in the 2019-2020 season alone. Due to the site's significance for Red-tails, ABP has developed an overarching Habitat Management Plan in consultation with the Red-tail Recovery Team. The Plan's goal is to inform strategies that will protect and promote the ongoing nesting of Red-tails. The Plan will also improve the sites nesting and feeding habitat for Red-tails as well as improve the broader biodiversity of the site.

A key feature of this plan is the establishment of permanent sanctuaries surrounding each nesting pole. Removed from the area of commercial plantation, these sanctuaries have been excluded from all future operations. The trees within this area will be selectively thinned, and the understory revegetated with native species to maintain nest shelter and gradually restore native habitat. To date, two sanctuaries have been established with the first revegetation works to commence in 2022. In addition to the revegetation of these protected areas a previously revegetated area of approximately 90ha will continue to be improved by thinning, weed control and supplementary planting of native vegetation.

The site has been monitored by the Recovery Team using Bio Acoustic Recorders (BARs) to record nesting activity and fledgling success. To improve this on-going monitoring program by the Recovery Team, ABP has purchased two BARs that have been installed at the base of two nests. ABP will continue to invest in BARs so all nests can be monitored, enabling the Recovery Team to expand the scope of their research to additional nests across the region. ABP is proud of the work it's undertaking in this critical project, which would not be possible without the expertise and the on-going support of the Red-tail Recovery Team.

Jack Carter

Environmental Forester, ABP

BIOACOUSTIC NEST MONITORING UPDATE

In the 2020/21 breeding season, sound recorders were used to monitor breeding at 89 Red-tail nests. This included known nests (active or historically used) and potential nests (never used) in the Wimmera, Glenelg Hopkins, South East (67 nests combined) and Powers Creek regions (22 nests). For the Wimmera, Glenelg Hopkins and South East regions, a small AudioMoth sound recorder was attached to each nest tree and recorded sound from 18:30 – 21:30 each day. At Powers Creek, we used Cornell Lab's Swift recorders, with the same recording schedule.

With some improvements to the field methods this season, the AudioMoth sound files were higher quality and had less interference with background noise. This made it easier to process the sound files using a call recogniser. However, there are still many false positive detections, which means that manual verification of detections is necessary. Most of my time is spent verifying detections to ensure that nests are correctly deemed to be active or inactive.

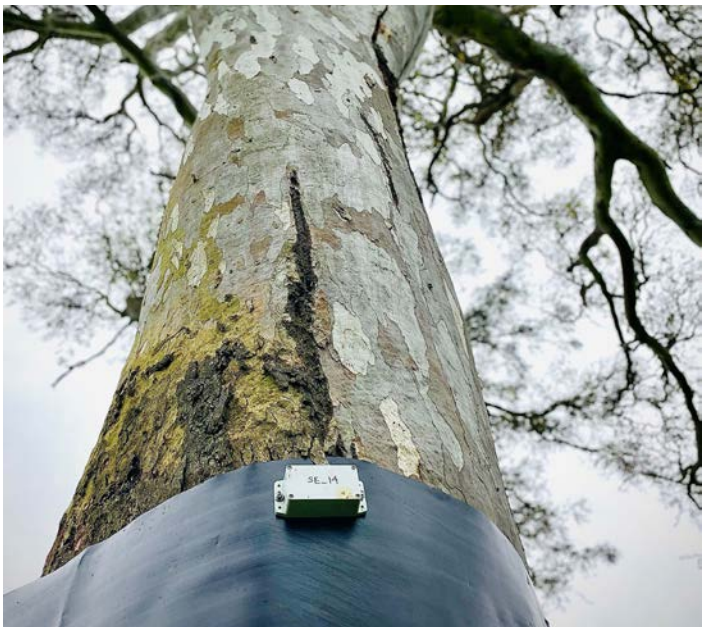
In the Wimmera, Glenelg Hopkins and South East regions, nine active nests were confirmed, of which only one was deemed to have fledged. However, at four nests, sound recordings ended when nests were active; as such, the final nest outcome was unknown. Given this, we estimate that 11 – 56% of nests survived to fledging. 55 nests were inactive (due to the nomadic nature of the cockatoo, we expect low use in any one year). Three nests did not have sufficient data to confirm nest activity or inactivity.

Artificial hollows in the Wimmera region were previously monitored in the 2019/20 season. Both Wimmera nests that were active in the 2019/20 season were re-used in the 2020/21 season. Another two Wimmera nests were used for the first time in the 2020/21 season. These data give us some insight into nest re-use and uptake time.

Unfortunately, the Swift recorders in the Powers Creek region failed earlier than expected, so the outcome for most of those 22 nests was not able to be determined. We are currently looking at alternative options to ensure that sound data cover the whole nesting period. We did, however, record nestlings at six nests, which is a promising sign.

The next season for 2021/22 is already underway and we're looking forward sharing results next year.

Daniella Teixeira



An AudioMoth placed on a redgum paddock tree with a nestbox in South Australia
Photo credit: Skye McPherson

KIDS HELPING COCKIES UPDATES

Students from schools in south east SA have continued to kick goals for our endangered Red-tails by growing and planting stringybark food trees at revegetation sites across the region.

Eight schools have been participating in Kids Helping Cockies events including presentations to learn about the habitat requirements and conservation of the cockatoos, stringybark seed collection and seed sowing, maintenance of seedlings and planting grown seedlings at local revegetation sites.

Participating schools are Allendale East Area School, Frances Primary School, Glenburnie Primary School, Lucindale Area School, Naracoorte South Primary School, Newbery Park Primary School, Suttontown Primary School and Tenison Woods College.

Students navigate through the entire process from seed collection to revegetation. In doing so, they gain important habitat propagation and revegetation skills and help to establish more food trees for Red-tails.

Over 2020-21, a total of 541 students were involved in 42 Kids Helping Cockies activities. A further 62 teachers and parent helpers were also involved, bringing the total number of regional participants in the program to 603.

Seedlings grown over summer/autumn by students were planted out during May/June 2021. A total of 1579 trees (435 stringybarks and 1144 associated species) were planted across six sites near Dismal Swamp, Naracoorte, Bangham, Compton and Wye, SA. Planting events were undertaken in conjunction with the Zoos SA Cockies Helping Cockies Program, which works with local farmers to revegetate habitat for Red-tails on private land.

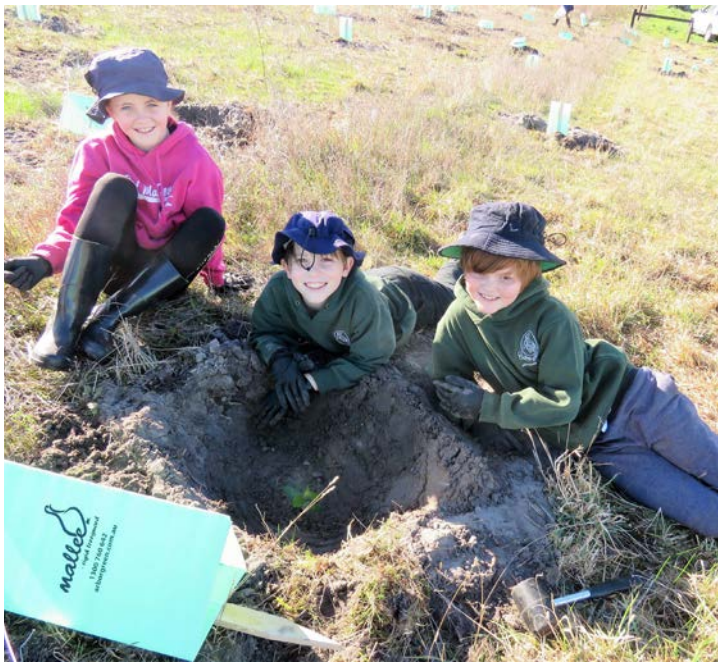
Remaining stringybark seedlings grown by the students were distributed to other habitat restoration activities for Red-tails. Students also helped to guard seedlings to protect from grazing herbivores.

As always, planting sessions proved very popular with students, allowing them to get outside and engage with nature, learn new skills and take action for Red-tails.

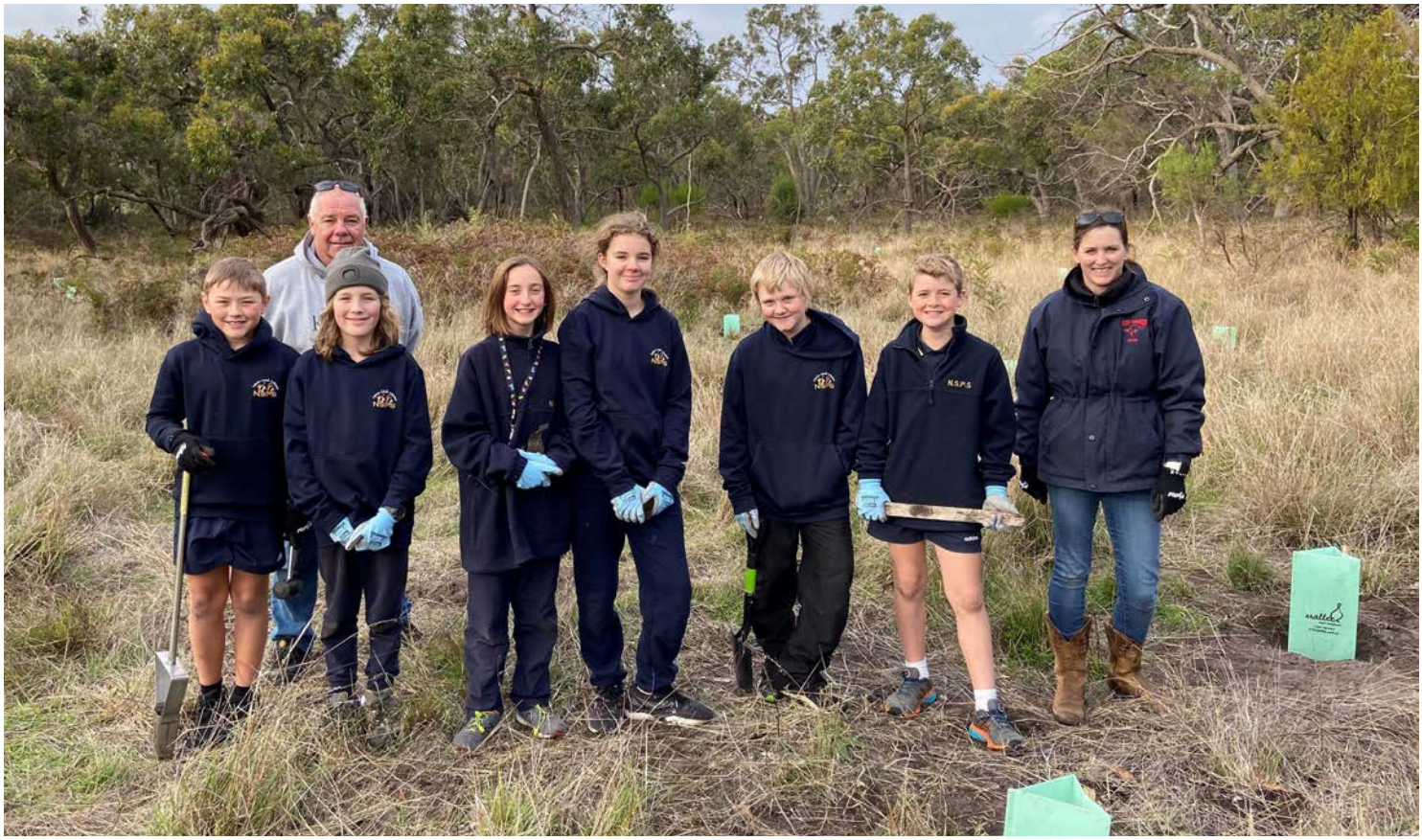
If your school is interested in getting involved in the Kids helping Cockies Program over 2021-22 please contact myself on 0438 317 024 or email bronwyn.perryman@birdlife.org.au.

The BirdLife Australia 'Kids helping Cockies' Project is supported by the Limestone Coast Landscape Board through funding from the Australian Government's National Landcare Program.

Bron Perryman
Kids helping Cockies Coordinator



Allendale East Area School Students planting stringybark near Compton. Photo credit: Bron Perryman



Naracoorte South Primary School students planting stringybark in the Naracoorte South Parklands. Photo credit: Bron Perryman

2021 ANNUAL COUNTS RESULTS

This year 85 groups totaling 181 volunteers took part in the annual count for the endangered South-eastern Red-tailed Black-Cockatoo across the range on Saturday 1 May.

BirdLife Australia and the SERTBC Recovery Team were thankful that the count was able to go ahead in full this year, after COVID restrictions in 2020 required we restrict staff and volunteer travel during the event.

After factoring in double counts of cockatoos and three additional sightings of Red-tails recorded either side of the official count day the final tally stands at 1230 birds, slightly more than the 2019 tally of 1193 birds.

Volunteers reported a record number of 57 distinct sightings this year, a strong increase from the 2019 result of 43 sightings. The weather conditions on the day were fairly mild which resulted in good conditions for counting Red-tails. Six large flocks ranging in size from 80-200 birds were included within the total.

The birds were again widely dispersed across the range, with sightings from as far north as The Gap in South Australia to Gorae in the south west of Victoria.

Information gathered during the annual count is crucial to determine patterns of habitat use, the minimum number of birds in the population and most importantly, the location of large flocks. There were six large flocks (greater than 80 birds) reported on the day.

This year, large flocks were found near Edenhope, Langkoop, Coonawarra and Nelson. Other sightings were made near Benayeo, Goroke, Natimuk, Clear Lake, Dergholm, Casterton, Rennick, Digby, Tarpeena and Wattle Range.

The table below provides a breakdown of the results for South Australia and Victoria.

Thirty-six groups observed Red-tails either on count day or within a few days of the count.

This year's volunteers spent over 340 hours searching for Red-tails across their range and to all the farmers who searched their own properties, the passionate team of locals who regularly take part in the count, and the participants who travelled from Adelaide and Melbourne to help out – we say many thanks, we can't do it without you.

Table 1: Observations and results of 2021 annual count by state and region

State / Region	Total No. of RTBC sightings/flocks	No. of sightings/flocks excluding double counts	No. birds counted	No. of sites/ areas searched	No. of volunteers searching	No. kms of habitat searched
South Australia	6	6	259	32	51	857
Glenelg Hopkins	25	17	344	30	75	1476
Wimmera	26	16	627	27	51	1098
Victoria (Wimmera & Glenelg Hopkins)	51	33	971	57	126	2574
Total (SA & Vic)	57	39	1230	89	177	3431

REMOVING WOODY WEEDS TO ENHANCE FEEDING HABITAT

In April, a team of 14 Bush For Life volunteers and staff from Adelaide joined eight local volunteers and staff for a fun-filled extended Bush Action Team (BAT) visit near Naracoorte.

Our dedicated volunteers spent two days removing boneseed from a stringybark woodland remnant near Naracoorte.

Woody weeds such as boneseed, radiata pine and weedy wattles compete with stringybark and buloke trees for light, nutrients and water. If left unchecked, these weeds can dominate bushland, resulting in less food for the Red-tails.

Volunteer Victoria Contessi said, 'It was a privilege to travel to the South East to be involved in such an important project'.

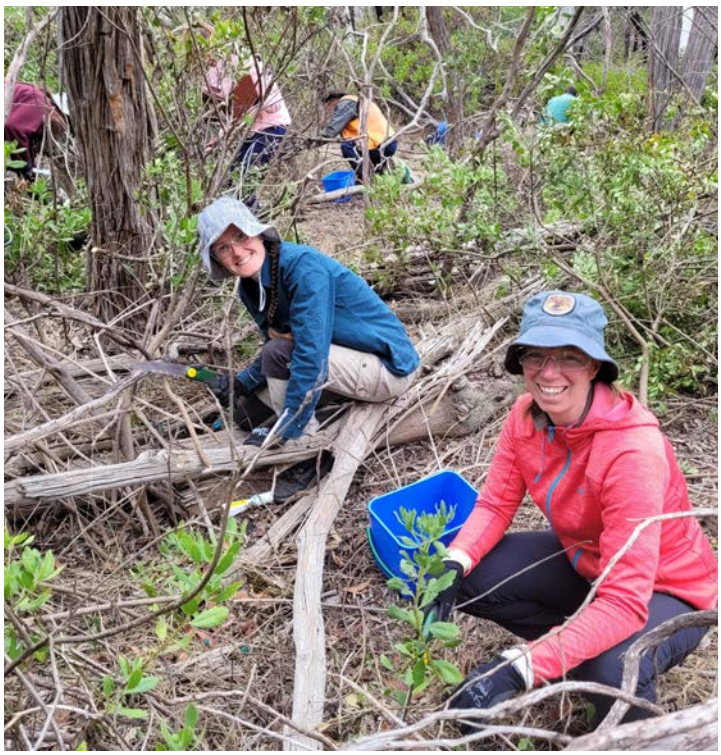
Throughout spring, the Burrandies Aboriginal Organisation built on this important work and around five hectares of a solid 10 hectare patch of boneseed has now been cleared.

The Naracoorte site is one of seven sites treated so far through the Communities helping Cockies project which has completed 800 hectares of woody weed removal out of a 1000 hectare target for the project.

Sites are chosen where Red-tails are known to feed frequently and high woody weed load is threatening their food supply. All weeds are mapped to allow a strategic approach to weed control and follow-up control is factored in to the project to ensure weed control is successful and long-lasting.

The workload involved is immense and has been made possible by the involvement of private landowners, forestry companies, volunteers, traditional owners and contractors.

Cassie Hlava, Trees For Life Habitat Officer



Mirinda Thorpe and Annie Hobby controlling boneseed in stringybark habitat
Photo Credit: Cassie Hlava

MORE NESTS FOR COCKIES

BirdLife Australia, with the support of the Limestone Coast Landscape Board through funds provided by the Australian Government, has been working hard to provide more nesting opportunities for our endangered Red-tails by installing new nest boxes at priority locations in the south east of South Australia.

Over the last two years, fifty new nest boxes have been installed at private properties within the bird's range in the south east region. Twenty-five boxes were installed in February 2020 and a further 25 in March 2021. Nest boxes have been installed near Bangham, Lucindale, Woolumbool, Cadgee, Naracoorte, Binnum, Coonawarra, Wattle Range-Penola, Nangwarry, Dismal Swamp and Glencoe.

Newly installed boxes are based on a similar design adopted by project officers working in WA on Carnaby's Black-Cockatoos. They are installed in trees, mostly large paddock gums, at heights above eight metres using a boom lift snorkel or cherry picker.

Made from corrugated pipe the boxes have an internal ladder that runs down the inside of the box to allow the birds to navigate in and out. A layer of wood chips is placed in the bottom of the box to provide a nesting base, as well as two wooden posts for the birds to chew on while inside the nest. The boxes are deep (1.5m) and not fitted with lids to reduce competition by other hollow-nesting cockatoos, such as Galahs who often prefer a 'roof' over their nest. Trees with the nest boxes are collared to prevent terrestrial predators such as Common Brushtail Possums from climbing the tree and accessing the box.

Nest boxes have been used by Red-tails in Victoria for many years and are proving to be quite effective, especially in areas known to be hotspots for nesting. In South Australia, however, there are fewer known nests and less boxes which we are looking to address.

Through the expertise of Paul Koch, we have been able to develop a nest box supplementation strategy to guide future nest box placement. By layering information about known existing paddock trees, confirmed nests, proximity to feeding habitat, hollow availability data and expert knowledge, Paul was able to develop a nest box prioritisation model. This model helps us identify and strategically target nest box placement in areas most likely to be used for nesting (close to feeding habitat) but lack, for whatever reason, suitable sized hollows.

All this work seems to have paid off with three of the 25 boxes installed in February 2020 having been used by nesting pairs over 2020-21 breeding season. Young nestlings were detected in all three boxes by bioacoustic recorders placed on nest trees to monitor use and success over the breeding season.

This is the first recorded used of nest boxes by Red-tails in South Australia, an amazing outcome and something we did not expect given the relatively short period of time the boxes had been up.

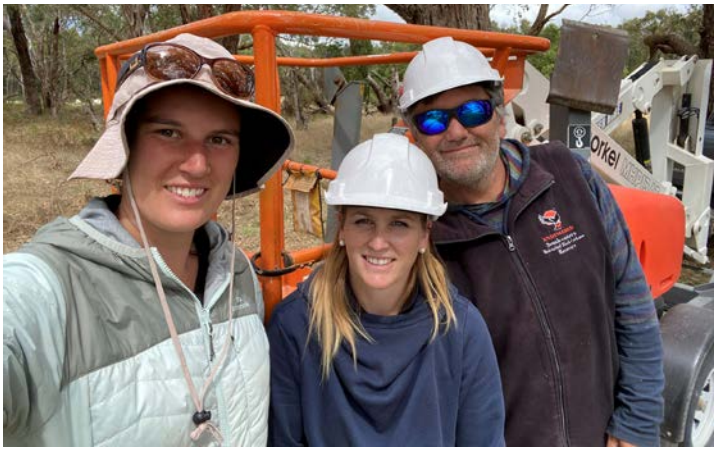
Evidence of use within twelve months of installation gives us confidence in the nest prioritisation model, placement of boxes and the effectiveness of artificial boxes to provide additional nesting opportunities for Red-tails in South Australia.

Boxes will again be monitored using bioacoustic recorders and a pole camera over the current breeding season.

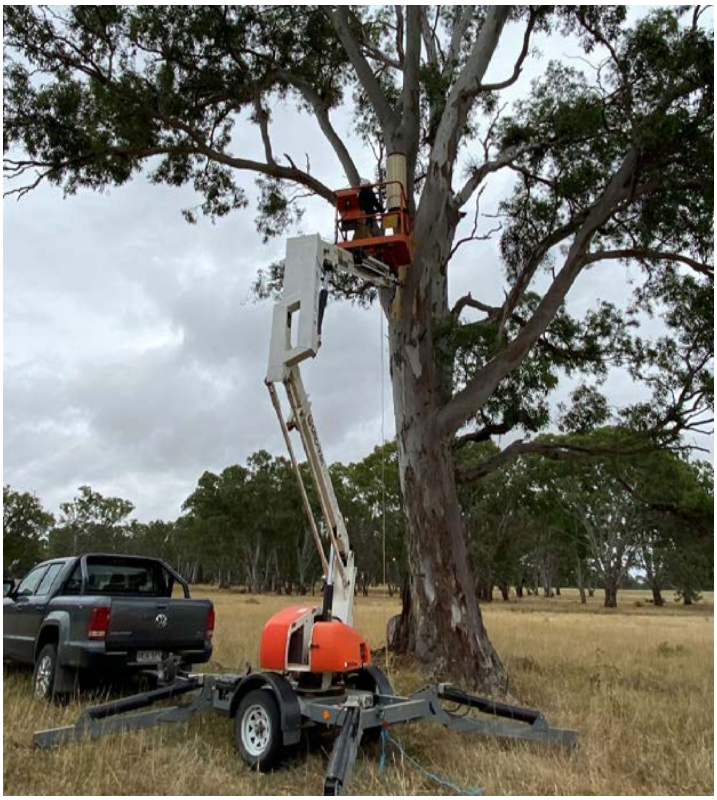
We'd like to say a big thank you to all the landholders involved in this project. Without their support the installation of nests for Red-tails would not be possible.

Bron Perryman

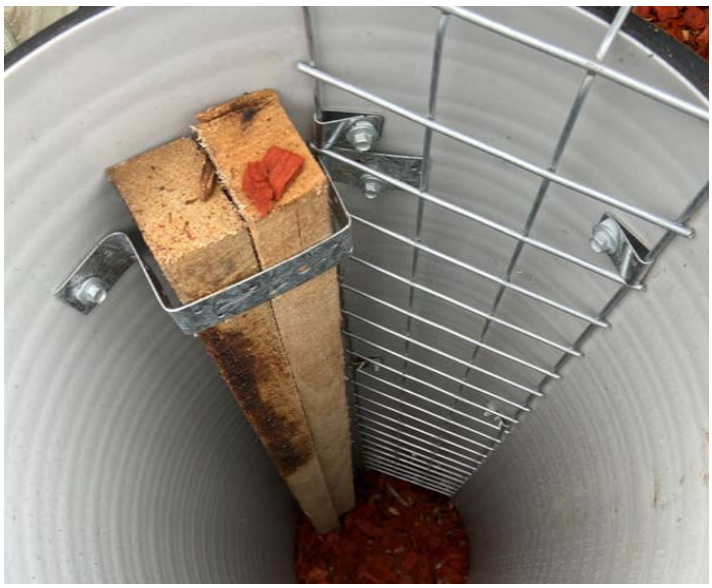
Kids Helping Cockies Coordinator &
Nest Box Installation Contractor, BirdLife Australia



Good job installation team!



Using a cherry picker to install a nest box on a suitable tree.

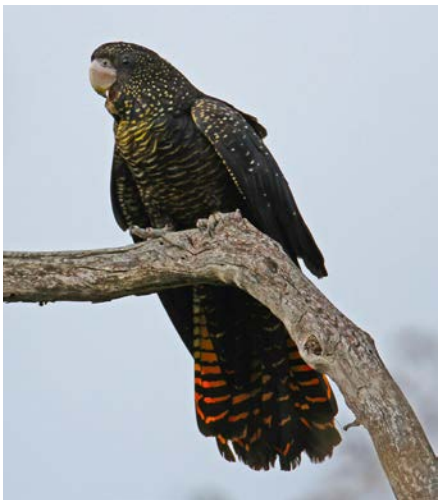


Have you ever seen inside a nestbox?

2021 FLOCK COUNT RESULTS

Long-term readers of the Red-tail news will know that, each year immediately after the annual count, we do our flock counts which are detailed counts of the larger Red-tail flocks as they come in to drink in the evening. Flock counts are the best tool we have available to indicate breeding success over the previous season by looking at the proportions of adult males and barred birds in flocks. Barred birds represent adult females and young less than four years old. The more barred birds as a proportion of the flock the better as we assume that more barred birds equals more successful breeding. Over the past 22 years that we have collected these data, we have seen the number of barred birds vary around an average of 58%.

This year we collected counts from six sites totalling 522 birds. Birds were counted near Rennick State Forest, Penola, east of Edenhope at Yallakar State Forest and Hauslers State Forest, south of Edenhope at Kadnook State Forest, and Nangeela State Forest near Casterton. About two-thirds of birds were recorded in Desert Stringybark, the other third in Brown Stringybark.



A barred bird. Photo Credit: Rob Drummond

The mean proportion of barred birds was up considerably from the past six years, to 57%. Flock counts were much more consistent between flocks this year, suggesting that the increase in barred birds was widespread in the Red-tail population. This is good news, as it means there were more young birds in flocks, and is probably a consequence of a good breeding season last year. Food monitoring shows that, like last year, there were a lot of capsules on Desert Stringybark, although by June this year, this seed crop was mostly older (about 18 months). Food availability in Brown Stringybark was also up, the highest we have measured since 2012. We believe the availability of high quality stringybark food is the best explanation for the varied proportions of barred birds we observe from year to year, and the result this year is consistent with this. These results are especially good news given the previous six years of flock monitoring measured some of the poorest ratios in the 22 years we've been monitoring Red-tails. Let's hope that this good breeding success is repeated again in the coming season. Currently the Desert Stringybark are all in bud, which is suggestive of another strong flowering next autumn. If that eventuates, we can hope for another good crop of new Desert Stringybark seed becoming available from late spring next year.

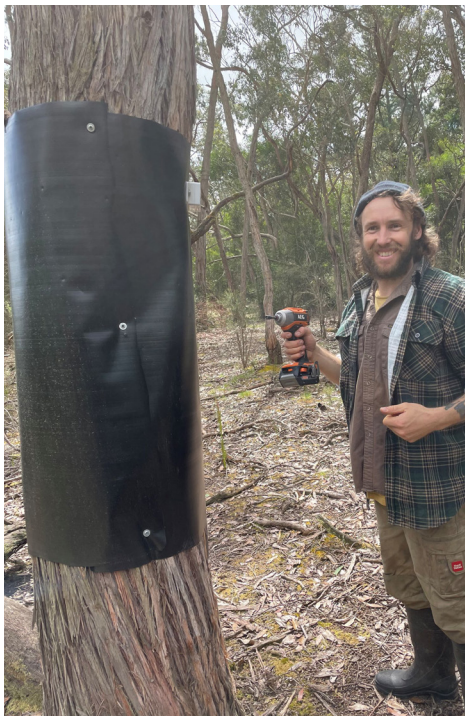
Richard Hill

DELWP

GIVING RARE BLACK COCKATOOS A VOICE OF THEIR OWN

Hello, my name is Oliver Wardle, from the University of Melbourne. I am studying the connection between attributes of the landscape, habitat disturbances and the breeding success rates of our familiar but still endangered South-eastern Red-tailed Black-Cockatoo (SeRtBC). Using bioacoustic audio monitoring devices and machine learning call recognition software our research team at Melbourne University is aiming to let the bird speak for itself as we help uncover what's limiting the population of Red-tails from bouncing back.

This masters of biosciences research project is a collaboration with the Dept of Environment, Land, Water and Planning (DELWP) and Birdlife Australia to implement one of the largest audio monitoring efforts to date. Following on from Dr Daniella Teixera's recent work developing the call recognition capacity, I'm aiming to connect those vocal signals to a landscape ecology perspective. Work is also being done within the team to refine our understanding of stringybark phenology and spatial and temporal capsule productivity. My research will complement that work by learning more about the bird's nesting behaviour with respect to those stringybark fluctuations as well as other ecological landscape variables like fire, surrounding land use and hollow availability.



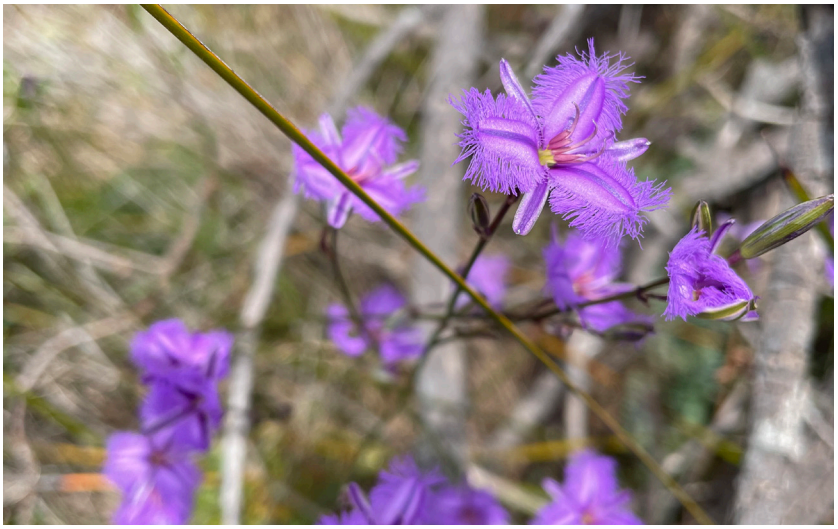
Melbourne University Student Oliver Wardle installing an audio monitoring device. Photo credit: Skye McPherson

Components of this study will be broken down into three main levels, firstly an assessment of hollow availability across the landscape with comparisons between areas geographically, and between different vegetation and land use types. Secondly, I'll be looking at where in the landscape Red-tails are choosing to nest over time with respect to hollow availability as well as other landscape covariates. These will include stringybark forage proximity and abundance and other landscape disturbance patterns such as fire history and land use. Thirdly, the bioacoustics component will aim to tie all this together with a snapshot of where the birds are nesting this year with the aim of determining not only landscape nesting preferences during the study but also the success and failure rates of nests with respect to food availability in the region.

It's exciting to be out in the western forests and contributing to putting the pieces of the puzzle together by hearing the voice of our beloved Red-tails. Any 'intel' on nesting this summer is greatly appreciated so get in touch with the Recovery Team if you see any activity around hollows (see earlier article titled 'Rewards on offer again to find nesting cockatoos').

Oliver Wardle

Masters of Biosciences,
University of Melbourne



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Keep an eye out for native wildflowers such as this Common Fringe-lily when you are searching for Red-tails.

Photo credit: Skye McPherson

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