Red-tail News

Issue 50 April 2020

A juvenile Red-tail starting to develop adult male tail feathers

Photo credit: Chris Farrell

WELCOME TO EDITION 50 OF RED-TAIL NEWS.

Welcome to the first Edition of Red-tail News for 2020.

It has been a difficult start to the year to say the least, starting with the unprecedented bushfires across Australia in late 2019 and early 2020. Small areas of Red-tail habitat were burnt across both Victoria and South Australia, but fortunately the impact of bushfires on the Red-tails is likely to be relatively small compared to many other species across the nation. Now we are struggling to get our head and practices around the global COVID-19 pandemic spreading across the world to keep our local and global community safe. The Recovery Team is continuing to do what we can to protect the SERTBC in accordance with the current restrictions.

In this edition of Red-tail News we will hear from Paul Koch who has been researching habitat extent and loss in the Red-tail's range, as well as updates from the Kowree Farm Tree Group and Glenelg Hopkins CMA.

We will also hear from George Bradey who finished his Honours project last year looking at the reproductive phenology of Desert stringybark, and the results of his studies.

Unfortunately we have made the hard decision to cancel the Annual Count this year to ensure the safety of all our volunteers. Instead we will be running a smaller event aimed at those who live in the Red-tail's range so we can still try to find as many birds as we can. More details can be found in the newsletter.

We encourage all our readers to adhere to all Australian Government directions in respect to COVID-19 to keep themselves and their families safe. Meantime keep your eyes to the skies as our sighting hotline and email remains open and we hope you enjoy reading our Red-tail News!

Thanks, Kelsey

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ANNUAL COCKY COUNT CANCELLED FOR 2020 BUT WE ARE STILL ASKING LOCALS TO 'LOOK TO THE SKIES'

It is with great sadness that BirdLife Australia and the Recovery Team announce that the Annual Cocky Count for the South-eastern Red-tailed Black-Cockatoo, planned to be held on Saturday 2 May, will not be proceeding as usual this year due to COVID-19 safety measures.

Initially we were hoping that the count would be able to proceed with protocols in place but to ensure the safety of our high-risk participants we have made the difficult decision to not go ahead with the usual count this year.

However it is vital at this time of year that we count as many Red-tails as we can and try to find the location of large flocks, so instead of our usual count we will be running a 'Look to the Skies' event on Saturday 2 May where we are encouraging everyone in the Red-tail's range to conduct the count from their own homes.

Whether you have a small backyard or a large property we would love you to head outside on the 2 May in the morning and late afternoon and keep an eye out for any Red-tails. This does mean that only people who live in the Red-tail's range can participate in the event, so we do apologise to those people who live elsewhere who will not be able to take part.

The Red-tail habitat covers an area ranging from Mount Gambier to Keith in SA, and Nelson to Little Desert in Victoria. All people living within this range are encouraged to search on the day and no prior bird survey experience is required.

If a participant is planning on taking part in the event they can let us know through phone or email, and we ask that if anyone sees any birds on the day to send in a sighting report. All sightings can be reported to the Project Coordinator on Free-call 1800 262 062 or via our website www.redtail.com.au or email redtail@birdlife.org.au. Just include your name, time of sighting, how many Red-tails were seen and where (map reference is preferable) and what they were doing (i.e. feeding).

Some of the members of the SERTBC Recovery Team taken in front of the Red-tail mural at Naracoorte. The Team meets several times a year to share updates of recovery actions and to discuss future priorities of the project.

Photo credit: Steve Bourne

If anyone sees any cockies between now and the 2 May, we also encourage people to send in those sightings as well.

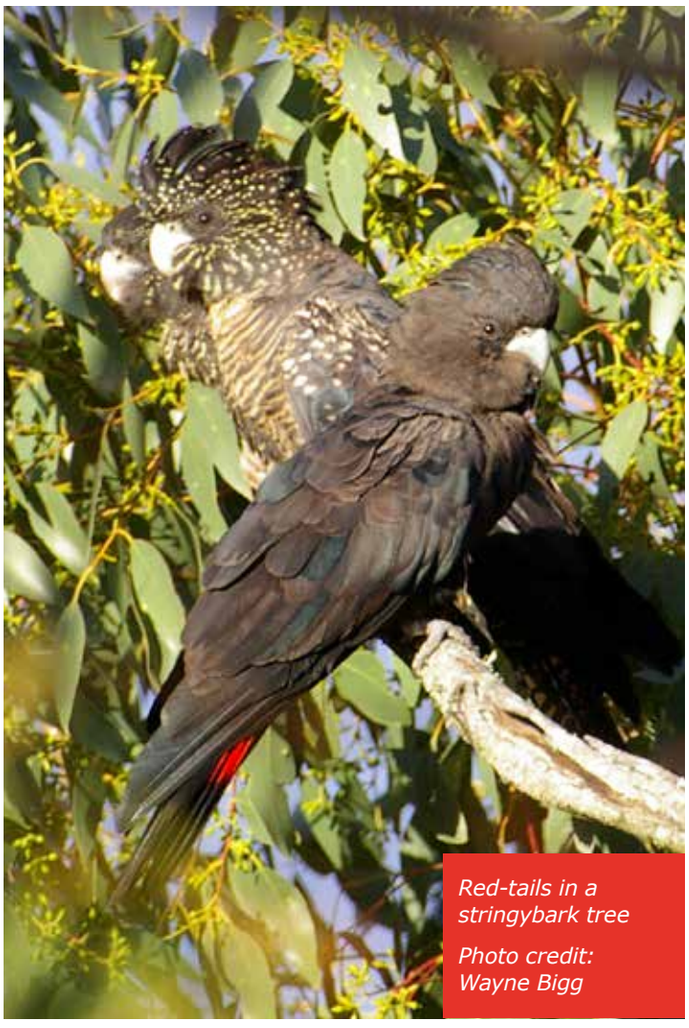
We are especially keen to try and get as many landholders involved as possible, as we are still hoping to conduct the annual flock counts which will help us gain an indication of breeding success in the population. To do this we need to know the location of as many large flocks as possible, especially where they come in to drink from stock troughs, dams, etc. How the flock counts operate will be contingent on future announcements on the COVID-19 response

The Recovery Team has recently set up a Facebook page for the project. You can head to our page for updates about the project and we will be sending out reminders for our 'Look to the Skies' event.

We would like to say a very big thank you to those volunteers who had already registered their interest – this would have been the 24th year of counting cockies and we know there are many regular volunteers who have taken part for a number of those years. The Annual Cocky Count will be back again in full next year, and the following years, so there will be plenty of opportunities to take part in the future!

For more information on the event or to express your interest in participating please contact Kelsey Bennett on 1800 262 062 or email redtail@birdlife.org.au. In the meantime we hope that everyone stays safe and healthy.

Kelsey Bennett



Red-tails in a stringybark tree

Photo credit: Wayne Bigg

RATES OF HABITAT LOSS: GOOD NEWS AND BAD NEWS

Ongoing habitat loss is considered to be one of the key threats to the SERTBC. The aim of this study was to determine rates of habitat loss occurring over the past decade (2004-2017) across major habitat types (stringybark feeding habitat, buloke feeding habitat and gum nesting habitat). To achieve this, aerial images and mapping software were used to map total cover of different habitat types, including both remnant vegetation and counts of individual paddock trees, in sample areas across the Red-tail's range. This process was repeated for more recent aerial images to determine and compare rates of habitat loss over time.

First the good news!

Overall, there has been a slight gain in total cover for both species of stringybark food tree and gum woodland nesting habitat. This was attributed mainly to great efforts on private land such as revegetation and stock exclusion from areas adjacent remnant vegetation, leading to natural regeneration. Total cover of Buloke showed a slight negative trend, but rates of loss have slowed substantially when compared with an earlier study. So thank you to all the hard-working landholders who have taken steps to look after the bush and protect our wildlife. Your efforts are really starting to pay off!

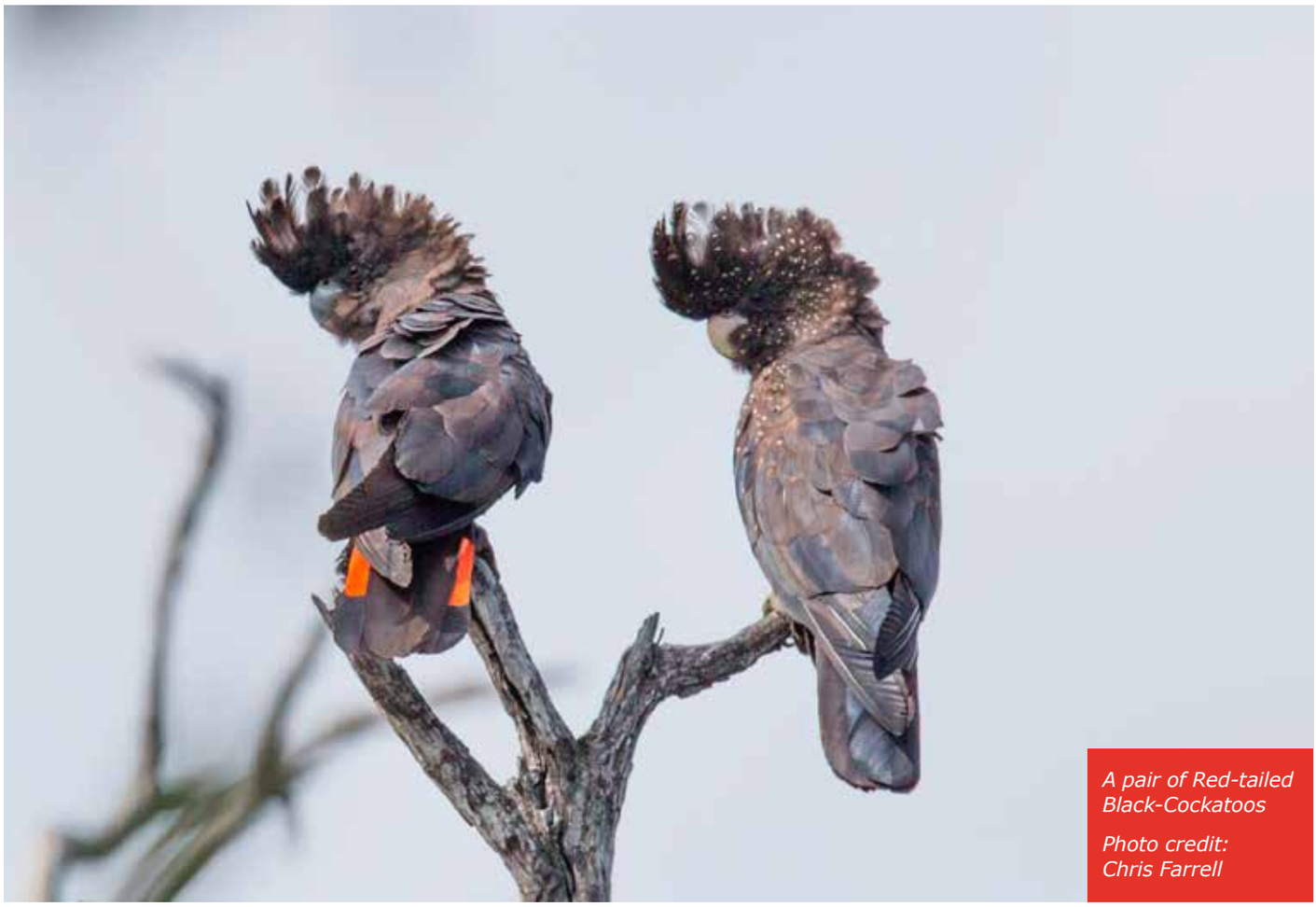
Now for the bad news... Although there has been a slight gain in tree cover overall, rates of loss for paddock trees have substantially increased across all major habitat types. We know from previous studies that paddock trees provide really good feeding habitat, producing much more food on average than trees within patches of native vegetation. And we know that most of the best nest trees are associated with paddock trees on private land.

Of particular concern is the rate at which gum paddock trees (mostly Red Gums) are declining. Net paddock tree cover loss for gums averaged around 2.4% per annum over the 2004-2017 period. If this rate of paddock tree loss continues, all the mature gum paddock trees in the Red-tail's range will be gone within 42 years! Investigation into the causes of paddock tree loss since 2004 suggested drought stress and dieback were the most important factors.

Increasing rates of tree dieback and mortality have been noted in many regions of Australia and in other parts of the world, consistent with climate change predictions. The prevailing hot and dry conditions in southern Australia appear to be placing trees under additional stress and this is likely contributing to the widespread insect attacks on the leaves of Red Gums that we are seeing across the Red-tail range. Stringybarks have also been badly affected by leaf-defoliation in some areas, including trees in conservation parks and other large remnants. Healthy trees are better able to defend against these attacks by producing more oil in their leaves.

Rural tree decline is a major challenge facing us over the coming decades. Paddock trees are important for all sorts of reasons, including the vital shade and shelter they provide for livestock. We may need to look at replacing many of our paddock trees with more drought-resistant stock from hotter and drier regions. We are about to undertake further studies in this area and work out some strategies to ensure that our beloved cockatoos (and trees) persist into the future.

Dr Paul Koch
Future Ecosystems



A pair of Red-tailed Black-Cockatoos

Photo credit: Chris Farrell

RED-TAILS OF THE GLENELG PLAIN UPDATES

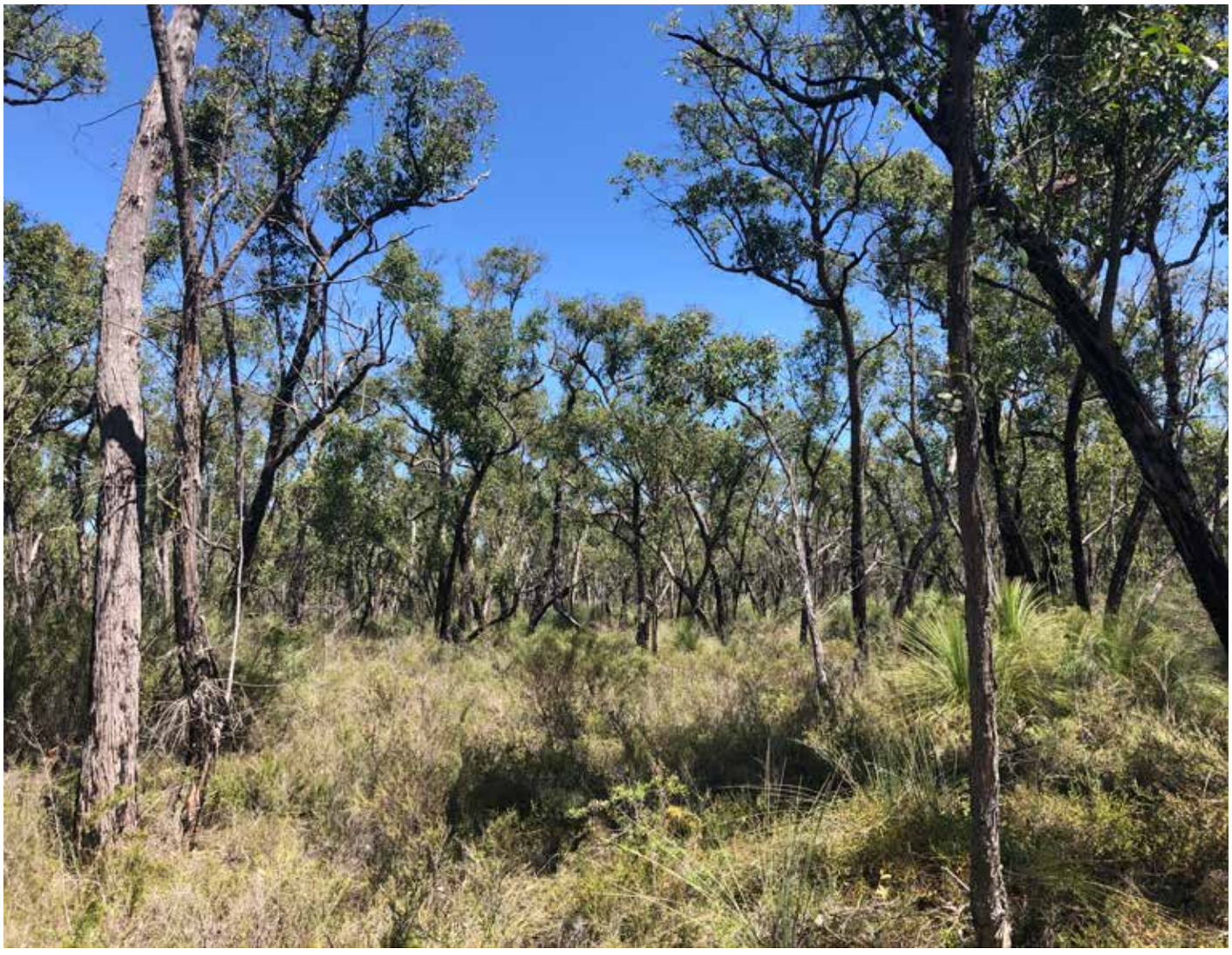
Over the next four years, the Glenelg Hopkins CMA will be undertaking several projects focused on SERTBC conservation. These projects will concentrate on implementing key actions outlined in the Recovery Plan. In addition to supporting activities being run by BirdLife and the Red-tail Recovery Team, the CMA will work with Greening Australia to revegetate feeding habitat, with Traditional Owners to introduce low-intensity Aboriginal burns in areas subject to fuel reduction burning, and to secure the long-term protection of habitat through conservation covenants.

The revegetation of food trees is being managed by Greening Australia, with a focus on establishing scattered paddock trees on private land. The focus on scattered paddock trees is expected to provide greater value regarding tree productivity, as isolated or edge growing stringybarks produce higher yields than trees within patches. The first of these trees will be planted in Autumn this year. In addition to increasing food production for Red-tails in the landscape, the project will also enhance connectivity between stringybark remnants on private land and the State Forests.

The majority of stringybark in the region is distributed within State Forests and subject to fuel reduction burning. This burning is undertaken to protect human assets and enhance community safety. However, when fire scorches the stringybark canopy it can reduce fruit production for a decade, compromising Red-tail food resources in the region. The introduction of Aboriginal burning into Red-tail habitat within State Forests is expected to assist in minimizing canopy scorch, while also satisfying the fuel reduction objective.

The first Aboriginal burn will be undertaken by Gunditj Mirring Traditional Owners Aboriginal Cooperative in Autumn this year. Ecological monitoring will be undertaken alongside the burn, focused on understanding how fire behaviour differs between Aboriginal burning and fuel reduction burning. This work will then examine how the different methods of burning impact on the vegetation in relation to canopy scorch, fuel load reduction and post-fire ecological recovery.

If you are interested in getting involved in the project, either through conservation covenants or the revegetation of food trees, the Glenelg Hopkins CMA would like to hear from you. For more about the project, please contact Ben Zeeman m: 0411 311 328, e: b.zeeman@ghcma.vic.gov.au



The site where a cultural burn will occur near Casterton
Photo credit: Ben Zeeman

UPDATES FROM THE KOWREE FARM TREE GROUP

As usual, Kowree Farm Tree Group (KFTG) activities have been concentrated on the conservation of SERTBC habitat in the northeast part of its range.

Last year the KFTG continued with its program of planting individual trees in paddocks. A bit over 1,000 trees (Bulokes and stringybarks) were planted in June. This project was part of the Food for the Future project run by the Wimmera CMA within the Federal Government's Regional Land Partnerships Program (RLP). The twist with this project is that we had two people door-knock to recruit the landholders to do this work. What we found is that lots of people are keen to have someone prod them into planting trees in guards in their paddocks. As a result, we have quite a few new people on our books who are keen to do further work.

This year KFTG will be replacing the trees in individual guards which did not survive the summer. Also, we have been successful in gaining funds via the Federal Government's Communities Environment Program (Mallee Electorate) which will be used for planting a few small patches of stringybark and Buloke on farms near Edenhope.

Another ongoing activity of the KFTG is that a sub-group has been set-up, led by Anne Craig, called the Kowree Private Conservancy Network (KPCN, if you prefer acronyms). This is a club of people who own land which they manage for conservation. It meets twice a year on one of our member's properties to have a look around, share a meal as well as share information. This year we had a meeting in May at Sarah Patterson's block which adjoins Brimboal SF, and in spring we had a weekend camp at Bradeys' farm near Edenhope, which has many conservation areas. Red-tails and Brolgas attempted to upstage each other at the campsite.

The next meeting of this group will be the day after the 'Look to the Skies' event (May 3rd). It will be on a property near Miga Lake. Anyone who is interested in joining this group or coming to the next event (Coronavirus permitting) is welcome to call me for more details (03 5587 3558).

Earlier this year our Landcare Facilitator, Annette Jones, after four successful years, left for another job closer to home in Dunkeld. Our new facilitator, Rachel Farran has been on deck for a few weeks. She has done this job before and we are very pleased to have her back.

Finally, a small project, which has been on our job-list for a while, is to have a Red-tailed Black-Cockatoo as Edenhope's postal stamp. Our former facilitator, Annette Jones, has finally cracked this one. Within a month or two, all letters leaving Edenhope will have a two-coloured stamp of a Red-tail.

Andrew Bradey, President Kowree Farm Tree Group

Members of the KPCN attending the Spring Gathering on the Bradey's Farm.
Photo credit: Cliff Hignett

BIOACOUSTIC MONITORING PROJECT IN THE WIMMERA

In our last newsletter (Edition 49) we reported on 25 nest boxes that had been installed in June last year for the South-eastern Red-tailed Black-Cockatoos. These boxes had been installed on private properties in the range of the SERTBC across the Wimmera region. Over the breeding season between September and March the boxes were monitored to determine whether they had been used by Red-tails (or anything else!).

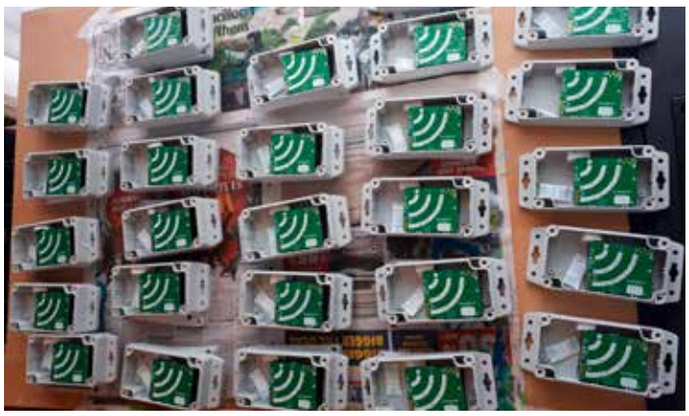
The nest boxes were first monitored in November last year using a nest pole camera to look into the top of each box and see what was inside. While some of the boxes were empty, there was a variety of wildlife using the other boxes including other bird species, and even a sugar glider! One box was initially believed to contain a single Red-tail chick, however after closer examination it was found that there were two chicks inside which suggests a different cockatoo species, as Red-tails only lay one egg.

At the same time as monitoring with the nest pole camera we also installed a sound recorder on each nest box tree. Using bioacoustics to monitor Red-tails is a technique which has been developed by PhD student Dani Teixeira. Thanks to her research and expert advice, we purchased a number of these sound recorders to monitor each nest box during the breeding season. The recorders remained on each tree, recording sounds for several hours per day, until March when they were removed. The data obtained from each recording has been sent to Dani for analysis to determine whether any of the boxes were used by Red-tails between November and March.

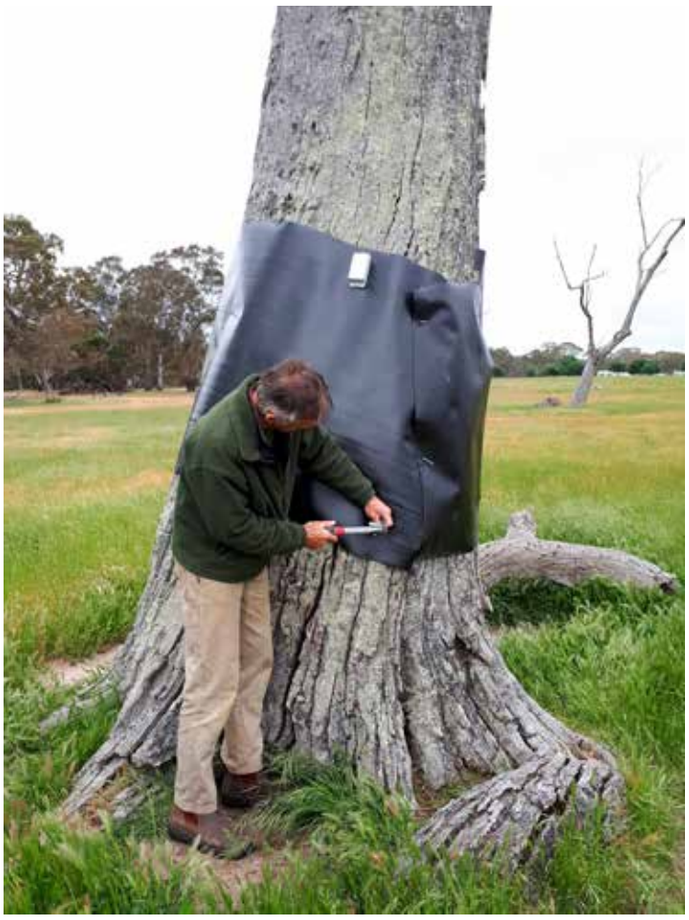
During the breeding season sound recorders were also deployed at private properties in the Glenelg Hopkins region containing both natural nests and artificial nest boxes. The properties were monitored in November last year and it was discovered that at least 15 Red-tail pairs were using the natural and artificial nests! Sound recordings from the bioacoustic monitoring will provide us with an indication of how many chicks fledged from these nests, which will be reported on in the next newsletter.

The bioacoustics monitoring program will also continue and expand for the breeding season this year, after installing another 40 Red-tail nest boxes in February across the Red-tail's range this brings the total number of new boxes to 65. We are hoping to monitor all these boxes for the next breeding season and gain an indication of whether the cockies are enjoying using the new homes designed specifically for them.

Kelsey Bennett



Sound recorders ready to be installed on nest box trees
Photo credit: Kelsey Bennett



Richard Hill collaring a nest box tree with a sound recorder
Photo credit: Kelsey Bennett

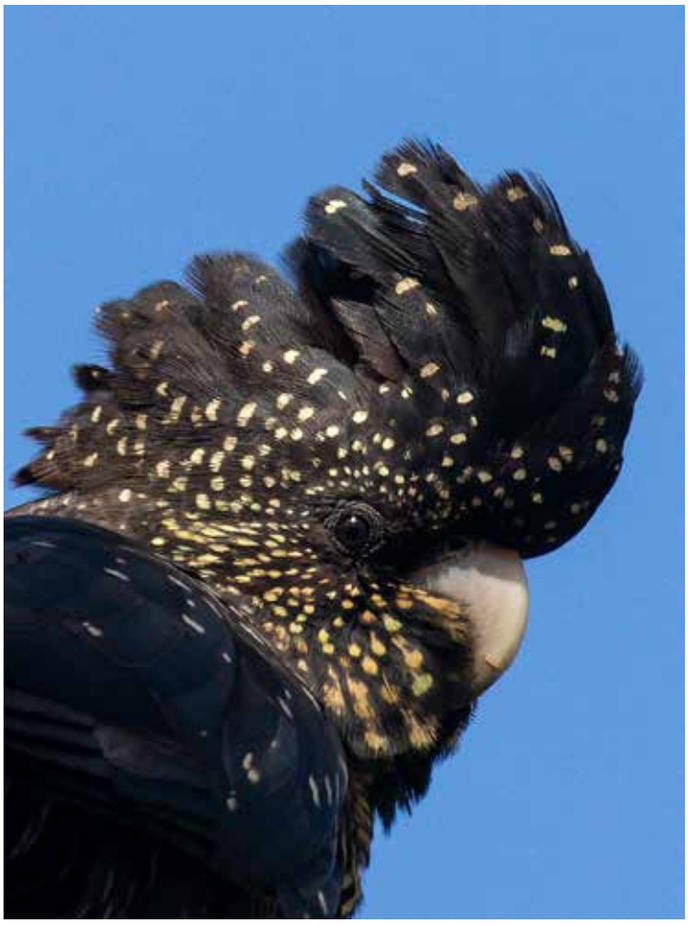
A sound recorder in a waterproof box installed on a tree
Photo credit: Kelsey Bennett

BIRDLIFE SA TWITCHATHON RAISES FUNDS FOR SERTBC RECOVERY PROJECT

The BirdLife Twitchathon was again held last year over the weekend of the 26-27 October across Australia. The Twitchathon is a friendly competition in which teams of birders race to hear or see as many bird species as possible in a set time, while raising funds for crucial bird conservation and research projects. This year the threatened bird species which was chosen for the South Australian Twitchathon was the South-eastern Red-tailed Black-Cockatoo, with 11 teams taking part. The teams and their supporters managed to raise an amazing $2,230 for the Recovery Project!

The funds will go towards purchasing bioacoustic monitoring equipment so we can monitor new nests and nest boxes across the Red-tails range in South Australia. Monitoring nests and nest boxes will allow us to gain more information about breeding success and fledgling survival of the population, which will help direct our recovery efforts into the future.

The Red-tail Recovery Team would like to say a massive thank you to the teams that took part in the Twitchathon to raise money for Red-tails, and to all those who generously donated to a team.



Close up of a Red-tail's head
Photo credit: Luke Leddy

HONOURS PROJECT ON DESERT STRINGYBARK

In 2019 I conducted an Honours project at La Trobe University looking at temporal (timing) and spatial variation across the region in the reproductive phenology (cycles of flowering and fruiting) of Desert stringybarks (*E. arenacea*) within the range of the South-eastern Red-tailed Black-Cockatoo (*Calyptorhynchus banksia graptogyne*).

Much of the field work associated with this project was trying to make sense of seed yields in stringybarks. I used data collected by Richard Hill and Tim Burnard during the annual counts of seed crop density since 2010 at 10 randomly selected locations across the range of the cockatoo.

Also, I was able to obtain honey yield data in stringybark forests from two beekeepers in the north-eastern part of the Red-tail's range. This data gave a very consistent and reliable measure of flowering intensity for the past 40 years. The assumption I made was that a big flowering event in late summer is necessary for a big seed crop a few months later. In Desert stringybarks these events occur every three years.

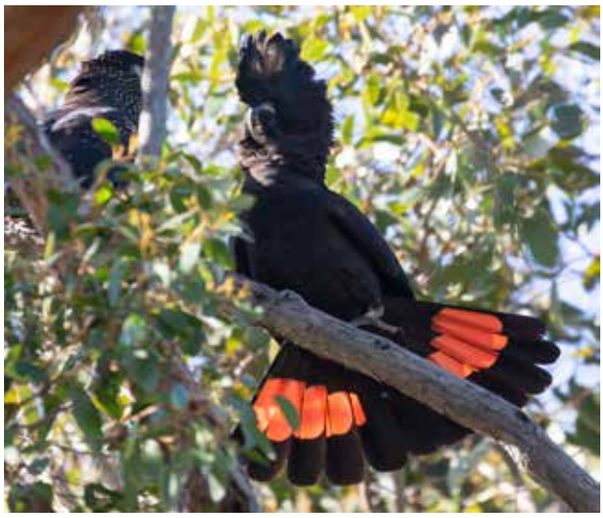
I spent ages trying to see whether the honey-yield/flowering/seed crop was in any way correlated with rainfall records. It appeared that over the past four decades honey yields had declined along with spring rainfall. When rainfall records for this period were converted into a drought index, the steady decline in moisture levels we all know is happening is clearly demonstrated graphically.

The results indicated the seed crops of *Eucalyptus arenacea* declined significantly when below average rainfall fell at the timing of bud initiation which occurs during the springtime two years prior to the maturation of green mature capsules. In short, declining moisture levels in spring, as predicted by climate change models, reduce seed supply (from Desert stringybarks) for the Red-tails.

Thanks for the fantastic support I received from Richard Hill, Tim Burnard and Paul Koch throughout this project.

George Bradey

A flowering stringybark tree
Photo credit: Kelsey Bennett



FUNDING ACKNOWLEDGMENT:

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A male displaying typical courting behaviour to a female by showing off his red tail feathers

Photo credit: Luke Leddy

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