Newsletter of the Australian Bird Study Association

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# **NEWSLETTER 143**

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**Photo by** *McKinley Moens* 

## Editorial

Well, here we are in 2021, wanly hopeful of a slightly better year than last. The announcement that NSW will have four new feral-predator-free enclosures at Penrith, Cobar, Macksville and Eden/Bombala is one bit of welcome news. Experience has shown that Australia's native animals breed like rabbi...er...Bilbies, when freed from the pressures of predation by foxes, cats, dogs etc. See the press release below by NSW Environment Minister Matt Kean.

We include in this issue the winners of the awards and grants that ABSA gives out. The Durno Murray award for best paper in Corella, and the 'Bill" Lane award for best student at Charles Sturt University, are both named in honour of founding members of the Association, who have also made substantial contributions to Australian Ornithology, through their work and publications, and through their organising the structures that support research - interest groups, journals, conferences etc. The recipient of the research grant from the Fund for Avian Research is also announced herein. Missing is the biennial award for the Best Poster presentation at BirdLife Australia's *Australasian Ornithological Conference*, cancelled due to COVID. When it returns, we will be there.

 ${f T}$ he ABSA Committee has been conducting its meetings by ZOOM for the last year, because of COVID19, and using video

conferencing for distant members for much longer than that. Members are invited to reconsider their possible nomination for Committee positions now that remote attendance is commonplace. We have recruited a few younger people to the Committee in the last few years, but the preponderance of grey-bearded baby-boomers is still obvious. For ABSA to survive, this renewal process must be maintained, bringing fresh ideas, energy and enthusiasm to the table, and transforming ABSA into a viable, dynamic, relevant 21st Century organisation.

*Stein Boddington* Newsletter Editor

## **ABSA** Annual Conference

There will be no Annual Conference in 2021, due to uncertainty surrounding COVID19 restrictions.

## ABSA AGM

Notice is hereby given that the ABSA Annual General Meeting will be held, as it was last year, by email, in the two weeks leading up to the 20th March 2021. Separate notice will be sent to all members by email, containing office-holders reports, and outlining the timetable for receipt of comments, questions etc.

As ABSA anticipates that all this year's committee meetings will be held via ZOOM, we encourage interstate members, who may not have otherwise thought it possible, to nominate for positions on the ABSA Committee.

## ABSA AWARDS AND GRANTS 2021

## The "Bill" Lane Award for best student in Ornithology at CSU

The 2020 recipient of this award is *Allison Roberts* a dedicated student and very worthy recipient of this Prize



## The Durno Murray Award for Best Paper in Corella 2020

The winners of the Murray Award for 2020:

### Clare Lawrence, James V. Briskie and Melanie Massaro





Their paper was entitled:

"Nest predation rates and identification of predators at songbird nests in Tasmanian woodlands"

The identification of nest predators provides a better understanding of how particular predators and their foraging modes shape the evolution of anti-predator behaviours in nesting birds. We monitored nests of the Pink Robin *Petroica rodinogaster*, Flame Robin *P. phoenicia*, Grey Fantail *Rhipidura fuliginosa*, Tasmanian Thornbill *Acanthiza ewingii* and Brown Thornbill *A. pusilla* in Tasmania to determine predation levels and we used motion-triggered cameras to identify predators at nests of four of these species. By conducting an experiment comparing predation levels between nests with natural eggs that were being cared for by parents and those same nests (after failure or the chicks had fledged) containing experimental finch eggs but with no parental attendance we also tested whether parental activity provides a foraging cue for nest predators. Nest survival rates differed among species and ranged between 15.5 % and 31.6 %, and most nest failures were attributable to predation. The likelihood of nest predation did not differ between active nests with parental attendance and the same nests with experimental finch eggs but no parental attendance, indicating that parental activity is not an important cue for potential nest predators in these woodlands. We identified ten predator species. Despite the diversity of



potential mammalian predators in our study sites, native birds (7 species), including cuckoos, raptors and butcherbirds, were by far the most frequently observed predators of songbird nests in Tasmanian woodlands. This was particularly evident from cup nests in trees, where birds were responsible for 9 of 11 predation events in which the predator was identified. Only three species of mammals were identified as nest predators, including the native, arboreal Eastern Pygmy Possum *Cercartetus nanus*. Given the different foraging strategies of predators even within the same guild, identifying predators to species is an important step towards understanding predator-prey dynamics.

Winners receive a total cash prize of \$150, certificates for each author and one complimentary membership of ABSA.

#### FAR Research Grant - 2021

The ABSA Fund for Avian Research grant for 2021 was awarded to **Jenna Diehl**, from Monash University. She received \$2000, and her research title is:

#### "Growing up in the tropics: assessing heat stress in nestling Purple-crowned Fairy-wrens"

#### Background:

How the accelerating pace of global warming will affect animal populations depends on the effects of high temperature across the life-cycle. The early stages of an organism's life are some of the most important periods of growth and development, and therefore particularly sensitive to adversity. The environmental conditions experienced during this life-stage can thus have strong effects on morphology, physiology, and behaviour, with effects lasting into adulthood. Nonetheless, the impacts of earlylife heat stress are not well understood. Nestling birds in particular are vulnerable to the effects of high temperature due to their small size, high energy costs associated with rapid growth and development, undeveloped thermo-regulatory systems, and restricted movement. Despite this, studies on nestling responses to high temperature have produced complex and often conflicting results, likely due to a focus on the northern temperate zone, where temperatures may remain below the upper critical level. In tropical conditions, the combination of high temperature and high humidity could have even more drastic consequences and nestlings may be exposed to temperatures at the upper critical level more frequently. Thus, it is particularly important to assess the effect of high temperatures on developing nestlings in the tropics, in order to understand the effect that global warming is predicted to have on bird populations across multiple climates, including climates they are predicted to be most vulnerable in. Purple-crowned Fairy-wrens, Malurus coronatus, are a cooperatively breeding passerine endemic to northern Australian, a tropical climate. Purple-crowned Fairy-wrens are riparian habitat specialists, relying on dense Pandanus vegetation; therefore they represent a biological indicator for riparian habitat health. As a result of habitat destruction and degradation, mostly due to cattle and fire, the western subspecies is listed as endangered. Peak breeding takes place in the wet season (Dec - Apr), with nestlings consistently being raised in temperatures that exceed 35 degrees C, which is often the temperature at which negative effects of heat are found for temperate breeding birds.

#### Aim:

It is unknown at what temperatures nestlings in tropical climates start to face heat stress, and how this may differ from temperate breeding birds. Thus, I will determine the temperature that nestling Purple-crowned Fairy-wrens experience heat stress by exposing nestlings to a variety of temperatures while measuring their metabolic rate. This will help us predict future detrimental effects of climate change and direct effective conservation management to minimise its impact.



## **Progress Report on 2020 FAR Grant**

"Revegetated real estate: why isn't it move-in ready for Grey-headed Robins?"

The Grey-headed Robin *Heteromyias cinereifrons* frequents rainforest edges and takes up in rainforest regrowth. Seemingly not too fussy about their address, you might expect these sassy perch-and-pounce insectivores to readily settle in rainforest revegetation sites. But they don't.

Although not currently listed as threatened, Grey-headed Robins, which are endemic to higher elevations in Queensland's Wet Tropics, are at risk of severe population declines and range contraction due to climate change. This might be surprising, since they're not difficult to see. These sturdy, pink-legged robins with their calico cat colours and distinctive 'vehicle backing up' whistle are regularly spotted on tree trunks inspecting the ground for signs of juicy worms or other prey items.



Ready for release. A Grey-headed Robin with transmitter attached (aerial just visible).

Grey-headed Robins are dependent on rainforest where they stay year-round, not moving far. They're not tied to the forest interior, however, and are often found on rainforest edges and occupying older secondary forest sites. So long as there's habitat with robins nearby, this edge tolerant trait should allow Grey-headed Robins to easily colonise established rainforest revegetation. However, my colleagues at Griffith University and I found Grey-headed Robins in only a third of the restored rainforest sites we surveyed in 2008. We concluded that, as for many of the other bird species endemic to the Wet Tropics, replanted rainforest habitat isn't generally of sufficient quality to meet their ecological needs. Whether it's fixtures or furnishings, something is lacking in the revegetated real estate.

Through colour-banding and radio telemetry, I hope to understand more about Grey-headed Robins' microhabitat use and resource requirements. If robins have needs that are not well met in replanted sites, restoration practitioners might be able to modify their revegetation techniques and reduce the time taken for Grey-headed Robins to move in.

In 2020 I received a grant from ABSA's Fund for Avian Research that allowed me to purchase six tiny VHF radio-transmitters. These weigh less than one gram and attach to the robin's back with glue. Between Aug. and Oct. over the dry season I radio-tracked eight Grey-headed Robins to observe their behaviour, home range and movement, and relate this to habitat variables.

I began this project at The School for Field Studies (SFS), a study abroad program where I'm a Research Associate. The SFS field station sits on a 63ha block of remnant and regrowth rainforest that adjoins the Wet Tropics World Heritage Area. When I applied for the ABSA grant, I intended to radio-track robins there. However, Grey-headed Robins proved difficult to catch at SFS and, when Covid 19 temporarily closed the facility and made even local travel uncertain, I had to consider other sites.

Fortunately, my own piece of real estate near Malanda on the southern Atherton Tablelands provided the solution. Between our 1ha forest block and those of our friendly neighbours, we have a microcosm of primary forest, regrowth and revegetation that has still allowed me to examine fine-scale habitat use. And there are great benefits, in efficiency and certainty, of having my study area in my own backyard!

Initially I had trouble with transmitter attachment. The first four robins were only tracked for a few days because their transmitters fell off prematurely. The transmitters were found on the ground with their attachment sites looking as if the transmitters had simply slid off the bird. It was obvious that the glue was ineffective in humid conditions. By avoiding humid conditions and allowing a little longer drying time, later attachments lasted longer.

When radio-tracking was underway, I located the robins at least every few days, usually daily. Once located, I'd get a GPS position and quietly observe the bird's behaviour for as long as it remained in sight. These observations have been supplemented with opportunistic sightings of banded birds.

Home ranges of radio-tracked robins still need to be calculated and analysed. However, this short study has provided new information about Grey-headed Robin breeding biology and hinted at things that might make revegetation sites move-in ready. In 2020, Grey-headed Robins at my study site bred earlier than expected. In 1997, Dawn and Clifford Frith, in the only study of this species' breeding biology, had young fledging by late August. Two of the Grey-headed Robins in my study already had fledged chicks in early August when tracking commenced and several other fledged chicks, of un-banded birds, were also recorded in early August. As the Friths found, the Grey-headed Robin nests I located were either in the top of a sapling or in spiny climbing Calamus palms, about 1-4m off the ground.

-

Chicks have a relatively long dependency period and are fed almost exclusively by their mother. They begin foraging for themselves but continue to take food from their mother for at least 2.5 months after fledging when they are in virtually adult plumage. Dependent chicks are "parked" in dense vegetation such as vine thickets, generally 0.5-1.0 m off the ground. They remain still and quiet until their mother is nearby and then beg loudly in response to her calls. They usually flutter or fly to the ground where they are fed on worms and other invertebrates.

Adults moved through and foraged in open areas like driveways and revegetated areas in the study site but young chicks were never recorded in these areas. Females with dependent fledged chicks typically foraged within about 50 m of their chick. In a particularly dry period I also found females close to the river on the site boundary and saw them moving from the river back to their chick at frequent intervals. As chicks got older, their mothers moved further away to forage.

What are the implications of these findings for Grey-headed Robins in revegetation sites? Well, there are a few factors this study highlights that mean our typical rainforest revegetation sites may not offer them breeding habitat for many years. Restoration plantings in our region can be expected to develop a shady tree canopy by the time they are six or seven years old. By the end of the first decade, many structural attributes, such as stem densities and leaf litter, reach levels similar to old-growth rainforest. Some other attributes however, such as vines and climbing palms, develop much more slowly. Since Calamus is not usually planted, and saplings of the right height are only available for a short time in even-aged plantings, revegetated sites may not have

suitable Grey-headed Robin nest sites for decades. And without a dense understorey, these sites are unlikely to have safe refuges close to the ground for dependent chicks. Revegetation can be hotter and drier than old-growth forest so, in a warming climate, Grey-headed Robins that make a home there may be more susceptible to heat stress.

These are factors that restoration practitioners may be able to do something about. Robin-friendly home improvements could perhaps include interplanting once a restoration site is established to provide right-sized saplings for nest sites. Leaving herbicide-killed woody weeds in situ, or installing clumps of tangled vines, may provide dense structure at ground level for chicks to shelter in. And providing supplementary water could help keep Grey-headed Robins and other wildlife cool. I hope this study will inspire trials of these ideas.

*Amanda Freeman* 11 February 2021



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Grey-headed Robin chick in low, dense vegetation where they are typically "parked".
Grey-headed Robin nest in Calamus after the chicks had fledged.

## A Short History of the Ramsar Convention on Wetlands of International Importance.

2021 is the 50th Anniversary of the Ramsar Convention on Wetlands of International Importance. Is this a cause for celebration?

50 years on, our wetlands face greater threats than ever before, despite the efforts by those pioneers dedicated to wetlands conservation in the lead up to the Ramsar Convention and since its ratification, over 60 years in all. It will take a mammoth effort by us all to turn back the tide on the loss and degradation of the world's wetlands, given today's political climate where

environmental conservation sits at the bottom of the list of priorities of some our wealthiest nations, while our poorest nations depend on water and wetlands for their livelihoods like never before.

We each have a voice whether communicating our concerns to the politicians we vote for or taking actions on the ground as conservationists. This can be working with under-resourced state, territory and local governments. An example is shown in the AWSG newsletter Tattler #49 (click to download pdf).

Most people are unaware of the history of the lead up to the event in February 1971 when a convention was convened by Dr Luc Hoffmann in 1960 as detailed below.

The Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat is an international treaty for the conservation and sustainable use of wetlands. It is named after the city of Ramsar in Iran, where the convention was signed in 1971. This was ten years after an international Convention was conceived in 1960 when IUCN received and approved a proposal from Dr Luc Hoffmann which called for an international program on the conservation and management of marshes, bogs and other wetlands. It was designated 'Project MAR' since these are the first three letters of the word for wetlands in several languages – MARshes, MARecages, MARismas. IUCN asked that the International Council for Bird Protection (ICBP) (BirdLife International) as well as IWRB should be asked to participate, and appointed Luc Hoffmann as Coordinator. At the beginning of 1962 he became the honorary Director of IWRB, which from then onwards played a central role.

Luc Hoffmann organized a MAR Conference in the French Camargue, at Saintes-Maries-de-la-Mer, from 12 to 16 November 1962. This was attended by some 80 experts from 12 European countries and from Australia, Canada, Morocco and the United States. Nearly 60 papers were presented on the economic, scientific and moral considerations; the criteria for defining wetland areas and reserves; the legal and administrative devices; the management, utilization and restoration of wetlands; the role of man-made aquatic habitats; the international efforts needed for the conservation of wetlands and their fauna. These impressive proceedings appeared in 1964, in English and French.

It took just over eight years of conferences, technical meetings and behind-the-scenes discussions to develop a convention text that had any hope of being accepted widely in the political climate of the time.

The Ramsar Convention is the oldest multilateral international conservation convention and the only one to deal with one habitat or ecosystem type, wetlands. The convention's headquarters are in Gland, Switzerland, and it works closely with the IUCN.

The convention was held in the city of Ramsar, Iran, in February 1971 and was originally contracted by seven countries when it came into force on 21 December 1975. As of October 2019 there are 171 contracting parties and over 2,000 designated sites covering over 200,000,000 hectares (490,000,000 acres). Every contracting country has at least one Ramsar site, and 31 of the contracting countries have only one site. The country with the most sites is the United Kingdom with 170. To become a Ramsar site, a site must be nominated by a contracting country, meet at least one of nine criteria, and undergo scientific review.

My initiation to wetlands and the conception of the Ramsar Convention was after being invited to work at the Tour du Valat Biological Research Station by Luc Hoffmann in 1960. This included of course helping with support for the MAR Conference in 1962, a bewildering experience for me, including the list of global delegates and papers at the conference.

Phil Straw, AWSG East Asian Australasian Flyway Liaison Officer

## List of Australian RAMSAR Sites

Go to <u>https://www.environment.gov.au/water/wetlands/australian-wetlands-database/australian-ramsar-wetlands</u> for a complete list of designated RAMSAR sites in Australia

## New Feral-Predator-free Enclosures Announced

NSW Environment Minister Matt Kean recently unveiled plans to turn back the tide of extinctions by more than tripling the area of feral cat and fox-free land in the state's national parks.

The \$20 million plan will establish four new areas, in addition to the three existing feral-free areas, bringing the total fox and catfree area in NSW national parks to almost 65,000 hectares. "This is one of the most significant wildlife restoration projects in the State's history, by establishing four new feral-predator-free areas we are paving the way for the return of wildlife that has been lost from our national parks as a result of feral cats and foxes," Mr Kean said. "Australia has the worst mammal extinction rate in the world, feral cats alone kill more than 1.4 billion native animals every year, with many surviving species at risk of extinction."

It is estimated well over 50 threatened species are expected to benefit from the program including 28 locally extinct species and

more than 30 threatened species currently surviving in national parks.

"We have been guided by the science in identifying the new locations, which will include NSW's first feral-free sites in tall wet forests (north-east and south-east NSW)," Mr Kean said. "This project draws a line in the sand – not only will we double our efforts to stop extinctions, we are committed to reintroducing threatened species and restoring their populations."

### Key facts

Four new feral predator free areas:

- Castlereagh Nature Reserve, Western Sydney, fenced area approx. 500 ha
- Yathong Nature Reserve, near Cobar Central NSW, fenced area approx. 40,000 ha
- Ngambaa Nature Reserve, near Macksville North-east NSW, fenced area approx. 3,000 ha
- South-east NSW (Eden Bombala Region), estimated fenced area approx. 1,500 2,000 ha

Exisitng feral predator free areas:

- Pilliga State Conservation Area, near Baradine North-west NSW, fenced area 5,800 ha
- Sturt National Park, near Tibooburra Far North-west NSW, fenced area 4,000 ha

• Mallee Cliffs National Park, near Buronga South-west NSW, fenced area 9,570 ha

28 locally extinct species will be returned to national parks from which they have previously disappeared, including iconic species such as the Bilby, the Eastern Quoll, the Eastern Bettong and the Long-footed Potoroo.

More than 30 threatened species currently surviving in national parks will receive a boost from the exclusion of feral animals, including bushfire affected species such as the Smoky Mouse, Parma Wallaby, Red-legged Pademelon and the Malleefowl.

A \$20.3 million grant from the NSW Environmental Trust will enable the National Parks and Wildlife Service (NPWS) to establish the 4 new feral predator-free areas.

<u>https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-management/community-engagement/castlereagh-agnes-banks-and-windsor-downs-nature-reserves-draft-amendment</u>

## **Trip Reports** Lower Blue Mountains Project

### Blue Gum Swamp Creek Site - 10 January 2021

We had a very pleasant surprise on Sunday's banding at Blue Gum Swamp Creek – the track, which had deteriorated to the stage it became nearly impassable for our 4x4 vehicles, had been repaired so it was an easy drive to our banding site.

All up we banded 37 birds (6 retraps) with many young birds being caught. New Holland Honeyeaters were the most common with a sprinkling of 11 other species: Eastern Spinebill, White-browed Scrubwren, White-cheeked Honeyeater, Brown and Striated Thornbills, White-browed and Large-billed Scrubwrens, Lewin's Honeyeater, Golden Whistler, Yellow-faced Honeyeater and probably the highlight was a Crested Shrike-tit.

We encountered two snakes during the morning so were very careful where we trod when checking our nets.

### Cripple Creek site - 17 January 2021

by McKinley Moens, C-Class bander, age 15

It was a chilly start upon arrival at on Sunday, but the birds didn't seem to mind - they were flying into the nets before we finished setting up!

We banded quite a few young birds as well as adults throughout the morning with a total of 40 birds of 12 species, including 10 retraps. The most frequently caught species was Eastern Yellow Robin with eight birds, including three retraps. Other species banded were: Brown Thornbill, Eastern Spinebill, Grey Fantail, New Holland Honeyeater, Red-browed Finch, Scarlet Honeyeater, Striated Thornbill, Superb Fairy-wren, Variegated Fairy-wren, White-cheeked Honeyeater, and Yellow-faced Honeyeater.



## Photo: Comparison of female Variegated Fairy-wren (left) and Superb Fairy-wren (right).

#### Blue Gum Swamp Creek Site - 21 February 2021

McKinley Moens, C-Class bander, age 15

The dawn chorus was in full swing upon our arrival at Blue Gum Swamp on Sunday. The pesky leeches were also out in force, with a handful of our banders appearing to be leech magnets. The predicted rain didn't materialise and we had a successful morning of banding - with 31 individuals of 11 species, including 9 retraps.

The highlight of the day was banding a young Beautiful Firetail, a species rarely banded at this site. This was a particular highlight for me as it was also a first-in-the-hand.

Other species banded were:

- Brown Thornbill
- Eastern Spinebill
- Eastern Yellow Robin
- Golden Whistler
- Lewin's Honeyeater
- New Holland Honeyeater
- Rufous Fantail
- Superb Fairy-wren
- White-browed Scrubwren
- White-cheeked Honeyeater



### Back Yamma State Forest - 19th and 20th January 2021

### Alan and Audrey Leishman

We arrived at our normal banding site at Back Yamma State Forest in the early afternoon of the 18th. The site is adjacent to a dam which is located in the north-eastern corner of the forest. The dam was about 50% full and a few birds were visiting it when we arrived. We erected nets near the dam with some others through the forest woodland, furled them and then proceeded to set up camp. The weather looked ideal for banding.

The next morning we opened the nets at 6 am and closed them at 11:30 am. We trapped and banded a total of 39 birds of 8 species during this 5<sup>1</sup>/<sub>2</sub> hour session. Three nets were later opened at 4 pm and closed at 5:30 pm when we caught and banded an additional 19 birds of 10 species. Of special note was the capture of several Diamond Doves – this species had not been previously banded in this state forest. Over our two days banding we caught 10 individuals of this species.

On the 20th all nets were opened at 06:20 am and closed at 09:30 am. During this 3-hour period we caught 59 birds of 16 species. In the afternoon (5 pm to 6:30 pm) two dam nets were opened where we caught an additional 21 birds of 9 species. Only one Superb Fairy-wren, (adult male) was caught and no others seen during visit. Likewise no pardalotes, thornbills, warblers, gerygones or whitefaces were seen over the three days. This was surprising as these species were usually observed and caught during previous banding visits.

Species caught were:

- Peaceful Dove 13 (R=2);
- Diamond Dove 10;
- Red-rumped Parrot 4;
- Turquoise Parrot 1;
- Australian Ringneck 1;
- Laughing Kookaburra 1;
- Sacred Kingfisher 2;
- Rainbow Bee-eater 2;
- Brown Treecreeper 1;
- Superb Fairy-wren 1;



- -
- Spiny-cheeked Honeyeater 2;
- Yellow-faced Honeyeater 1;
- Fuscous Honeyeater 4;
- White-plumed Honeyeater 59 (R=7);
- Brown-headed Honeyeater 1;
- Eastern Yellow Robin 4:
- Willie Wagtail 1:
- Dusky Woodswallow 3;
- White-winged Chough 1;
- Double-barred Finch 3;
- Diamond Firetail 4;
- Fairy Martin 3;
- Tree Martin 1;
- Rufous Songlark 5.

TOTALS: 128 banded, 9 retraps, 24 species.

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