

BIRDS NEW ZEALAND

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COVER IMAGE

Welcome Swallow or Warou. Photo by Mike Ashbee.

<https://www.mikeashbeephoto.com/>

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From the President's Desk

Introduction

I was out in the hills around Dunedin recently and heard a number of Shinning Cuckoos calling. This distinctive call has always meant that Spring is here and Summer is not too far away. I also took the opportunity to complete an *eBird* checklist and add to the growing success of the Society's NZ Bird Atlas project. The latest report I have from Dan Burgin and Pat Crowe includes the data that the project now has had over 172,000 checklists submitted and that 273 species have been recorded across New Zealand. Also, we now have 89.33% of all the grid squares with some data. These fantastic results have been contributed by 1,051 participants; thank you all.

NZ Bird Atlas

As we head into Summer there are still plenty of grid squares out there which need coverage. Also, a key part of the Atlas is to complete nocturnal checklists and there is no shortage of squares which need a nocturnal checklist. In more Atlas news I'm pleased to be able to report that the Department of Conservation (DOC) has uploaded a copy of the 2020/21 Tier One Bird Monitoring data which will fill in some of the harder to reach squares. A fuller report of the benefits that this brings to the Atlas is posted online (<https://ebird.org/atlasnz/news/doc-tier-1-counts-bolster-atlas-dataset>), but I thank colleagues in DOC and at Wildlife Management International for enabling this important contribution to the Atlas to occur.

Council Meetings

Since my last report Council has met once formally and twice informally. The informal meetings are to give Council a focus on our financial affairs and to give the space for these to be discussed without the pressure of a full agenda. At the Council meeting in September, we discussed updating the fees and costs for Society data usage, received reports on the progress of the Phase III of the website re-development, and looked at options to build the Society's membership, among other matters. We are able to be a lot more flexible in our meetings as we are now using video conferencing for these and I'm grateful to both Ian Armitage and Mel Galbraith who have made access available through institutional accounts. The use of video conferencing has led to a significant saving in the way that Council conducts its business on behalf of members.

Forthcoming Conferences

As notified elsewhere in this edition, the 11th Australasian Ornithological Conference (AOC) will be held in Auckland from 8 - 10 February 2022. This is a great opportunity to meet (unfortunately only online) with colleagues from across Australasia at what is the largest biennial gathering of enthusiastic amateur and professional ornithologists from Australasia and overseas. I'm very much looking forward to welcoming colleagues and friends from BirdLife Australia to this event. So, please register and I look forward to chatting with you online.

Arrangements for the 2022 NZ Bird Conference in Christchurch are coming together. Please remember the Society's Fledgling Fund. We are growing this with contributions from members to support students attending Society conferences, and your contribution to this objective is encouraged. There is a notice in this issue and more details will be posted on the Society's website soon. I encourage early registration to save on fees and also to allow Nick Allen and his team to have confidence about the numbers attending.

Awards

I would like to remind members that nominations for the following three Society awards are due by 31 December 2021. These are: Meritorious Service Award; RA Falla Memorial Award; and the A.T. Edgar Junior Award. Please use the standard nomination form and submit it to Lynne Anderson (secretary@birdsanz.org.nz). Nomination forms are available from <https://www.birdsanz.org.nz/about-us/manual/forms/> and the award guidelines are here <https://www.birdsanz.org.nz/wp-content/uploads/2020/02/Awards-Guidelines.pdf> If you need support to complete a nomination, please ask your regional representative for their input.

Online Regional Meetings

As a result of the recent Covid lockdown, Mary Thompson (RR Otago) has been experimenting with online options. Mary is not alone in this and the Wellington and Auckland regions and others have been running some very successful meetings as well. So far in Otago we have had two meetings and have had members from across the island join in. At the most recent meeting we had participants from Nelson, Christchurch Queenstown and Invercargill to a very well interesting presentation by Rachel Hickcox on her PhD work on the foraging of Hoiho/Yellow-eyed Penguin off the South Island and Rakiura. I encourage other regions, especially those with a low numbers spread widely, to consider this option to engage with members.

Important End of the Year Reminders

As we come to the end of the year it is appropriate to remind all members to renew their subscriptions for the coming 2022 year. Ours is a membership-based Society and without your support we will not be able to build on our important work organising and promoting the study of birds in New Zealand. Members at the June AGM in Thames voted for a modest increase in the annual subscription fees, and this will be the first time that the new rates have been applied. The increase from \$70 to \$80 for an ordinary member is the first change in the subscription rate for ten years.

I'd like to finish by thanking all members, advertisers, and sponsors for their ongoing generous support through participating in Society projects, supplying articles, donations, and sharing our *Birds New Zealand* magazine with friends. I hope you all have the opportunity to get out and about this Summer and to renew yourself along with your friends and families by watching birds and enjoying learning more about them. I look forward to catching up with you all in 2022.

BRUCE MCKINLAY, PRESIDENT

Notice of Annual General Meeting

The 2022 Annual General Meeting (for the year ending December 2021) will be held at Haere Roa, University of Canterbury Students' Association Building, 90 Ilam Road, Christchurch. A registration form will be available online through the Birds New Zealand website. At this stage the 2022 Conference is planned to go ahead, however, attendees need to be aware that Covid restrictions may change at any time, and at short notice. Lynne Anderson, Secretary, P.O. Box 834, Nelson: secretary@birdsanz.org.nz

Calls for Notices of Motion

Notices of any motion to be considered by the 2022 Annual General Meeting must reach the Secretary before 28th February 2022, be in writing, and be signed by the mover and seconder who shall be financial members of the Society. Lynne Anderson, Secretary, P.O. Box 834, Nelson: secretary@birdsanz.org.nz

Connie Wright bequest

Connie Wright, late of Dunedin, has made a significant bequest to our Society. Connie and her late husband Alan Wright were very long-time members. Older members will recall their presence at meetings and field trips. My own connections with them began when they worked for the NZ Wildlife Service (NZWS) at Te Anau in the early 1980s. Connie and Alan were highly experienced hands-on managers of wildlife.

From 1968, they developed together what has become the daily management of Royal Albatross at Taiaroa Head, Dunedin. Although they worked closely as a team, Alan was often absent on Wildlife Service duties elsewhere. Connie simply assumed the tasks of looking after growing albatross chicks on her own. She did so throughout as a highly competent volunteer.

Connie shirked nothing: she devoted herself unhesitatingly to projects no matter how much that meant learning as she went. As Chris Robertson says, she could absolutely be relied on to complete her tasks diligently. Equipped no doubt by her intuition as a former nurse, she proved to be an exceedingly safe pair of hands with all kinds of birds, from albatrosses to Little Owls. All who knew Connie expressed affection and abiding respect for her.

She was admired as a quietly competent, dignified co-worker. She had an eye for detail and for what was correct, which earned respect for her judgement. Any critical evaluation was delivered unerringly, but with a minimum of fuss. In the NZWS family, Connie's freshly baked scones with butter, lashings of homemade jam, and coffee were legendary. Her kitchen was one of the Service's favoured social way-points.

Connie's generous bequest is deeply appreciated by the Society's Council. We will consider our options for its use to build the Society. Please do follow Connie's example by making the Society a beneficiary of your own will.

BRUCE MCKINLAY, PRESIDENT

Australasian Ornithological Conference 2022

Registrations for the virtual Australasian Ornithological Conference (8 – 10 February 2022) are now open. The AOC has five high-calibre key presenters who will deliver plenary talks on a range of fascinating areas of ornithology. You can find more info and register via the AOC website: <https://aocaukland.blogs.auckland.ac.nz>

Plenary speakers are:

Andrew Bennett (La Trobe University) *Woodland birds in rural environments: landscape structure offers key insights for conservation and management*;

Dianne Brunton (Massey University) *Integrating avian behaviour and conservation biology in the Anthropocene; expanding knowledge from Tīeke/North Island Saddleback translocations*;

Kyle Elliott (McGill University) *Conservation energetics of seabirds: Keeping afloat the ocean's brightest Fires of Life*;

Ralph MacNally (University of Melbourne) *Birds in a land of drought and flooding rain*;

Anna Santure (University of Auckland | Waipapa Taumata Rau) *Predicting the evolutionary potential of the threatened Hīhi – what can genomic information tell us?*

Fledgling Fund grants

Birds New Zealand's Fledgling Fund provides grants to encourage Student Members to attend and participate in the NZ Bird Conference and our AGM. Each grant covers the cost of the conference registration fee and attending the dinner. Applicants must have been a Student member for two or more years and enrolled full-time at a NZ tertiary institution or secondary school. Only one grant can be awarded per Student member. The criteria and application form are here: <https://www.birdsnz.org.nz/awards-and-prizes/notornis-and-conference-awards/fledgling-grant/> Applications must be submitted to the Secretary (secretary@birdsnz.org.nz) by 28 February 2022.

2022 Membership Renewals

Annual membership renewals for 2022 will be due as close as possible to one calendar year after the date of a member's 2021 renewal. For almost all existing members, your 2021 payment date was between 1 January and 14 February, which means an annual renewal date of 1 January.

Renewal reminders will be sent out at regular three week intervals starting six weeks before your renewal date, and will continue until six weeks after the due date, until your subscription has been paid. These will reflect a modest increase from 1 January from \$70 to \$80 for ordinary members, \$35 to \$40 for students, and it will be \$100 for a family membership (\$80+\$20).

You can renew via the website, either by direct debit payment or credit card: <https://www.birdsnz.org.nz/membership/login/#myaccount>

Please pay promptly as we depend on your subscription to continue our work supporting and encouraging the study and enjoyment of New Zealand's birds. New members can join on any date with the next annual renewal due as close as possible to one calendar year after that date. If we do not have your current email address please notify the Membership Secretary what it is (membership@birdsnz.org.nz).

NZ Bird Conference & Birds NZ AGM 2022

The 2022 Conference and AGM will be held in Christchurch during Queen's Birthday weekend. All events and meals will be held at Haere Roa, the University of Canterbury Students' Association building at 90 Ilam Road. Check www.birdsnz.org.nz for registration details, or contact your regional representative.

3 June 2022 (Friday)

1800-1930 Registration

4 June 2022 (Saturday)

0800-0900 Registration

0900-1700 Scientific Day One

1900 Informal Dinner

6 June 2022 (Sunday)

0800-0900 Registration

0900-1530 Scientific Day Two

1530-1700 Awards and AGM

1900 Conference Dinner

1 June 2022 (Monday)

Christchurch earthquake sites – impacts on habitats/birds (all day)

Canterbury Museum bird collection – "behind the scenes" tour (AM)

Atlassing near Christchurch/Banks Peninsula (small teams)

Ashley & Pegasus Bay wetlands – birding the coast (all day)

Call for Nominations for Council

The three year Council term of Colin Miskelly, Josie Galbaithe and Eleanor Gunby will expire at the next AGM (2022). Nominations are called for these positions. Note that the incumbents are eligible to stand again. Nominations will close with the Secretary on 28th February 2022. Nominations must be signed by two financial members of the Society and be consented to in writing by the person nominated who must also be a financial member of the Society. Would nominators please include a brief curriculum vitae of the nominated person if that person is not already a member of Council. Nomination forms are online here:

<https://www.birdsnz.org.nz/about-us/manual/forms/> Lynne

Anderson, Secretary, P.O. Box 834, Nelson: secretary@birdsnz.org.nz

Project Assistance Fund 2022

Each year Birds New Zealand gives grants for bird research and dissemination of information about birds. The maximum is usually \$2,000. Individuals or groups who are current members may apply. Applications close **30 March 2022** and are considered at the June Council meeting. The guidelines and application form are here: www.birdsnz.org.nz/funding/paf/

Donations and bequests

Birds New Zealand is working hard to ensure a better future for our birds, but to do so we need your help. Birds New Zealand is a registered charity (CC 41020) which means tax credits are available for donations made in NZ. You can donate to Birds New Zealand in the following ways:

* Deposit funds into our bank account: 02-0290-0164715-00

* Make a credit card payment online: www.birdsnz.org.nz/membership/you-can-help/make-a-donation/#form/Donation

Leaving a gift in your will

No matter how much it is, leaving a gift in your will really makes a difference. All funds received go into our Projects Assistance Fund, so you can be confident your gift will have a real impact and our birds will have a voice into the future.

It is important to consult your solicitor, Guardian Trust, or Public Trust office for advice on drawing up your will. A general gift allows Birds New Zealand to direct funds where they are needed, but we are also very happy to discuss options if you would like to leave a gift for a specific purpose. There are two options:

* Specific Legacy: You may wish to leave a specific amount of money, shares, bonds, items, or a nominated gift to Birds New Zealand, or

* Residual Legacy: You may wish to leave a gift of all or part of your net estate (what remains after all taxes, specific gifts to family and friends, and the cost of administering the estate have been paid). This should be expressed as a percentage or share of your estate.

David Medway Scholarship

This scholarship is sponsored by the George Mason Charitable Trust and named in commemoration of David Medway. It is intended to provide financial support to a student studying full-time at post-graduate level on a topic relating to ornithology. One scholarship may be awarded each year with a maximum value of \$5,000. Applications open on 1st February 2022 and close on 30th March 2022. Criteria, conditions, and application form are available online: <https://www.birdsnz.org.nz/funding/david-medway-scholarship/>

Marj Davis Scholarship

This scholarship was established in 2018 in commemoration of Marj Davis. One scholarship may be awarded annually with a maximum value of \$1,500. It is intended to provide financial support to a full-time Masters or PhD student conducting research in ornithology. Eligible research projects must clearly be of benefit to ornithology in NZ and to NZ birds. Preference will be given to proposals for ornithological research that is expected to contribute to a greater knowledge of birds in the Canterbury/West Coast region. Applications open on 1st Feb 2022 and close on 30th March 2022. The criteria and application form are available online: <https://www.birdsnz.org.nz/funding/marj-davis-scholarship/>

The Gift of Birds

Are you looking for a Christmas gift to give? You can gift someone a 2022 Birds New Zealand subscription for \$1.50 a week to help foster a lifetime of enjoyment and study of birds. Please send an email to eo@osnz.org.nz and we will send you the Gift Voucher, or visit our website for more details:

<https://www.birdsnz.org.nz/membership/you-can-help/buy-a-gift-voucher/>

Benefits of membership

You can join Birds New Zealand online right now for just \$1.50 a week. Our new subscription rate of \$80 per year is very reasonable, and for students is just \$40 per year:

<https://www.birdsnz.org.nz/membership/join-today/>

Members receive our quarterly colour magazine, Birds New Zealand, our quarterly journal, Notornis, occasional special editions, plus a free Birds New Zealand branded lens cloth. To join, just fill out the membership form online here:

<https://www.birdsnz.org.nz/membership/membership-form-nz/#join>

Or contact our Membership Secretary: membership@birdsnz.org.nz

Or contact your nearest Regional Representative:

www.birdsnz.org.nz/contact

Pacific Islands Bird Conservation & Research Fund

This Fund supports conservation management and research on bird species classed as endangered by BirdLife International and breeding on Pacific Islands, excluding NZ. It is administered by J S Watson Trust through the Royal Forest and Bird Protection Society of NZ and is a result of a working partnership between Birds New Zealand and Forest & Bird. As a general guide, a grant shall not exceed \$5,000. One or more grants may be awarded at any one time at the discretion of the J S Watson Trust.

Applications open 1st February 2022 and should be emailed not later than 30th March 2022 to the Executive Officer of Birds New Zealand: eo@birdsnz.org.nz

Criteria and further details are available online:

<https://www.birdsnz.org.nz/funding/pibcrf/>

New members

Birds New Zealand warmly welcomes the following new members: Nici Curtis, Rebecca Swan, Stephen Davies, Rosemary Barraclough, Judith Cain, Ken Fraser, Zenobia Southcombe, Bev Goodall, Vicki Woodcraft, Alex Dawber, Christine Grove, Ela Hunt, Rebecca Teele, Dominic Hartnett, Bas Cuthbert, Prue Cruickshank, Gary Wilson, Clare Hodgson, Lindsay Bates, Penny Donald, Luca Kornelia Kosa, Teresa Zhou, Alanna Burgess, Megan Bogisch, Anne Gaskett, James Dale, Jenny Hanwell, Liam Saleminck-Waldren, Kath Danaher, Gail Dallimore, Marilyn Scott, John Ruth, and Rachel Selwyn.

Donations

Birds New Zealand would like to thank the following members for their generous donations: Luca Kornelia Kosa, Natalie Forsdick, Helen Thompson, and Ken Fraser.

Banders without borders

Banding schemes around the world are taking part in the "Banders Without Borders" webinar series, led by Antonio Celis-Murillo from the American Bird Banding Laboratory, including the NZ National Bird Banding Scheme which was invited to participate in the inaugural online meeting. Each banding officer gave a short presentation, followed by discussions. Our schemes have similar challenges despite differences in scale and we can learn from each another's approaches to auxiliary markers (such as colour bands, loggers, transponders, etc.), mark changes (removing or replacing a mark), permitting, and data management. In particular, our US and Canadian counterparts were fascinated by our approach of using 3-D printed bird legs for bander training, and it seems our FALCON Bird Banding Database has some functionality they are still striving for.

MICHELLE BRADSHAW



📍 Kākāpō chicks: Andrew Digby/Kākāpō Recovery Programme.



📍 Antipodes Parakeet: Mark Fraser/NZ Birds Online.

Birds New Zealand Research Fund 2021

We manage this on behalf of T/GEAR Charitable Trust, and report here on the 2021 grants. All details are online: <https://www.birdsnz.org.nz/funding/birdsnz-research-fund/>

Portable genetic sequencing for Kākāpō

The Kākāpō Recovery Programme uses information about the sex and parentage of each chick to help manage Kākāpō genetic diversity, by translocating certain birds to different islands, or giving extra help to genetically valuable birds. It also helps monitor how well each chick is doing and prioritise use of resources such as veterinary care. Getting this sex and parentage information as quickly as possible is invaluable to inform the many decisions that need to be made in the first weeks following hatching. Current standard genetic sex and parentage tests can't be done in the field. Samples have to be transferred from offshore islands to a lab, so getting the results is slow and they can't be used for management decisions in the breeding season. New Oxford Nanopore portable sequencing technology has the potential to change this by allowing rapid genetic testing in the field.

With a grant from the 2021 Birds New Zealand Research Fund, we are developing a fast, field deployable test to provide genetic information to on-the-ground staff. We aim to trial a DNA extraction-to-sequencing protocol using nanopore technology, which could be implemented on-site as egg membrane samples come in from newly hatched chicks. We will first test this for birds of known sex and parentage. Once refined, we will use it for genetic sex and parentage testing of newly hatched chicks during the breeding season anticipated in summer 2021-22 and autumn 2022. We hope this will allow the Kākāpō Recovery Programme to rapidly obtain the information needed to make the best possible population management decisions.

MARISSA LE LEC (OTAGO UNI/KAKAPO RECOVERY PROGRAMME)

Kākāpō egg trait variation and viability

Kākāpō eggs often fail to hatch, and their breeding seasons are irregular, driven by the abundance of fruit from masting species (ie, Rimu). These problems limit the speed of Kākāpō population recovery. Until recently hatching failure was attributed to infertility, but we now know most unhatched Kākāpō eggs contain fertilised embryos that died early in development. It is unclear why this occurs, and if infertility and embryo death have different underlying causes.

To understand how to boost hatching success, we need to assess the fertility status of more unhatched eggs, measure more egg traits, and combine these data with information on parental birds and their environment. With a grant from the 2021 Birds New Zealand Research Fund, the Kākāpō Recovery Programme will use the upcoming 2022 breeding season to measure the size and shape of many more Kākāpō eggs, and dissect unhatched eggs to determine yolk/albumen weight, shell weight, and shell thickness. We will preserve the yolks of unhatched eggs without visible embryos, and use microscopy to determine if they are unfertilised or contain embryos that died early in development. Along with egg data collected during the 2019 season, and long-term monitoring data, these results will help identify the environmental and individual causes of poor fertilisation and/or developmental problems in Kākāpō.

DR JAMES SAVAGE

Evolutionary history of kākāriki

Prioritising species conservation and over-stretched government funding is built on an accurate understanding of evolutionary relationships and taxonomy. But what if that evolutionary history is wrong, and what are the consequences for endangered taxa if conservation funding and resources are re-assigned? The Department of Conservation Te Papa Atawhai (DOC) does not have enough government funding to save all of our unique taonga species from extinction.

Kākāriki (*Cyanoramphus spp.*) are one of our iconic avian groups and are spread throughout the Aotearoa New Zealand region, including the Rangitāhua Kermadec, Subantarctic, and Rēkohu Chatham islands. While some kākāriki are of less conservation concern, the Kākāriki Karaka/Orange-fronted Parakeet (*C. malherbi*) is critically endangered and the subject of intense conservation efforts. Likewise, the endangered Forbes' Parakeet (*C. forbesi*) would have become extinct through hybridisation with the Chatham Islands Red-crowned Parakeet (*C. novaezelandiae chathamensis*) if not for the efforts of DOC.

The evolution and taxonomy of kākāriki was seemingly resolved over 20 years ago using the fast evolving mitochondrial DNA control region. This work established that Forbes' and Orange-fronted Parakeets are distinct from Yellow-crowned Parakeet (*C. auriceps*), and that a number of insular island populations of Red-crowned Parakeet (nominated *C. novaezelandiae*) were actually distinct species (e.g. Norfolk Island Parakeet *C. cookii*).

Birds, especially parrots, are known to have gene duplications within the mitochondrial genome, including the control region. These duplications range from nearly identical to differing from the original sequences by as much as 80%. Contrary to previous assertions of a single control region in kākāriki, our preliminary modern and ancient DNA data indicate kākāriki do in fact have a duplicated control region.

The vital questions are, what is the nature of the duplication, how divergent are the two control regions, and has a mix-up of two divergent control regions been used previously to infer kākāriki evolution and taxonomy? Answering these questions could have serious implications for the conservation management of kākāriki.

We will use funding from the 2021 Birds New Zealand Research Fund to characterise the control region duplications within kākāriki, and reconstruct the accurate evolutionary history (and taxonomy) of *Cyanoramphus* using whole mitochondrial genomes and nuclear genotyping-by-sequencing. These datasets, combined with external kākāriki morphology and ecology, will also allow us to determine what role hybridisation has played in the recent evolutionary history of *Cyanoramphus*, including the Norfolk Island and New Caledonian taxa.

To date, conservation management decisions for kākāriki (and other NZ bird species) have been based on little genetic data. This collaborative and multi-faceted approach (including scientists from the University of Otago, Massey University, and the British Museum of Natural History) will provide vital data to help prioritise species conservation funding and inform evidence-based conservation management of these important taonga.

DR NIC RAWLENCE, UNIVERSITY OF OTAGO

Hormonal and behavioural aspects of sex role reversal in brown kiwi

Many animal species are characterised by males that are more colourful, loud, and aggressive than their female counterparts. Few species however, present sex role reversal or reverse sexual dimorphism, where females instead take up the role of being the larger, louder and more aggressive sex. Sex role reversal and reverse sexual dimorphism have been studied in female mammals with Hyenas being a prime example of masculinised females. These studies show that there is a hormonal component to masculinisation, and that mothers pass on their dominance to their offspring with the offspring of dominant mothers doing better. In contrast, bird studies are lagging.

In all of the five species of kiwi across Aotearoa New Zealand, females are significantly larger than males, with disproportionately larger bills. Rowi *Apteryx owenii* and North Island Brown Kiwi *Apteryx mantelli* also show behavioural sex role reversal, with males taking over the traditional female role of sole incubator. Previous work by our team showed that prolactin, a hormone associated with parental behaviour, is higher in brown kiwi males than in females, linking to incubation behaviour.

No one has studied other behavioural differences between male and female kiwi and whether there is a hormonal environment that correlates with masculinisation. Camera trap video footage of kiwi collected by our team show females engaging in intense dancing/chasing of males, a behaviour that is often expected in reverse. When taken together these observations suggest that kiwi is a great species for studying female masculinisation.

This project, which has received a grant from the 2021 Birds New Zealand Research Fund, aims to study sex role and dimorphism reversal in brown kiwi by 1. Investigating plasma levels of hormones involved in masculinisation; 2. Describing the behaviours of male and female brown kiwi during the breeding season; and 3. Measuring hormones in the egg yolk of unhatched eggs.

We will use plasma samples collected for our previous hormone study to investigate the levels of the hormone androstenedione (a precursor of testosterone that has been linked to masculinisation in mammals and other bird species). We will also carefully collect and analyse video footage of 'intense sexual dances' to determine the role of males and females. As maternal androgens are transferred to egg yolks in other bird species, we will investigate androstenedione levels in unhatched eggs (sourced from Operation Nest Egg).

This project is a collaboration with Dr Barbara Durrant (San Diego Zoo Wildlife Alliance), and Dr Wei Hang Chua (School of Health Sciences, Massey University).

CAITLIN McLEOD, MSc CANDIDATE & DR ISABEL CASTRO, SCHOOL OF AGRICULTURE AND ENVIRONMENT, MASSEY UNIVERSITY



▲ Dr Isabel Castro with male (left) and female (right) brown kiwi showing the extent of sexual dimorphism in one species: *A. Witehira*.



▲ Canon-netting Variable Oystercatchers: Julia Melville.

Shorebird capture & banding training

Using a grant from the 2021 Birds New Zealand Projects Assistance Fund we will obtain information on NZ shorebird that will contribute to a better understanding of their ecology and support future conservation management. Birds New Zealand has been collecting information on populations of wading birds in NZ since the 1940s. Count data are valuable in helping determine population trends, but identifying potential underlying drivers of such trends requires additional information on vital rates such as productivity, survival of young, recruitment of young into the breeding population, annual survival of adults, and movements.

This project will build on work already done by Birds New Zealand members over the past two decades on endemic and Arctic-breeding waders, including the annual National Wader Surveys. Current focal species include South Island Pied Oystercatcher, Variable Oystercatcher, Bar-tailed Godwit, Red Knot, and Ruddy Turnstone. The project will be the method of delivery for the Collaborative Research Agreement between Birds New Zealand and the Department of Conservation: *Mapping landscape scale movement networks and survival of Tōrea/South Island Pied Oystercatchers*.

This project will enable new people to train in bird capture and banding techniques, thereby ensuring a continuation of such activities in future (currently there are only six Level 3 cannon netters in NZ, with just 2 in the South Island).

DAVID MELVILLE & ROB SCHUCKARD

Foraging ecology of small seabirds

This project will investigate the foraging niches and physiological condition of three small seabirds breeding in the Hauraki Gulf region: Fairy Prions, Fluttering Shearwaters, and Little Shearwaters. Identifying their foraging niches during chick-rearing will help us to understand what may drive population-level changes under warming oceanic conditions, which will impact their various prey species differently. Assessing condition metrics (e.g. stress hormones) across several seasons will also help us determine how the environmental conditions adult birds encounter during their non-breeding period impact on their breeding success the following season. Detecting these potential 'carryover effects' of sub-optimal environmental conditions and poor foraging during non-breeding will help us understand what physiological thresholds these birds must meet to breed successfully.

The primary questions are: how does adult non-breeding condition impact on chick condition?; and how do these three species partition local resources during their chick-rearing periods? To answer these, a non-invasive measure of physiological stress (hormone extraction from feathers) will be used to determine adult condition during non-breeding, and chick condition during development. By comparing these metrics over three seasons, we can gain an understanding of whether there are carry-over effects of stress that adults experience during the non-breeding season that impact their breeding success the following season, as measured by the condition of their chicks. Funding from the 2021 Birds New Zealand Research Fund will enable analysis of samples from three field seasons (2019-21).

EDIN WHITEHEAD



▲ Cook's Petrel/Titi in care.

Grey-Faced Petrel stress physiology

With a grant from the 2021 Birds New Zealand Research Fund, this research will help determine whether variation in seabird stress levels can be used as an informative proxy of ocean conditions and seabird population success over time. It will use a minimally

invasive measure of animal stress (feather hormones) as a monitoring tool. To do so, it is crucial to establish the pattern of when and how the stress hormone deposits in feathers in response to stressors. That knowledge will allow for more accurate conclusions and predictions, and may inform development of early indicators of population declines for adaptive management strategies.

It will also integrate a validation effort to advance the understanding of stress hormone variation patterns using Grey-faced Petrel/Oi as a key indicator species with colonies in the Hauraki Gulf. It will scale-up the analysis from previous studies by integrating data from past breeding seasons and further samples from my research. It has two broad aims: 1) To determine if variation in Oi stress hormones deposited in feathers can be used as an informative proxy of ocean conditions. Hypothesis: The population will show higher detectable levels of feather CORT in years under increased environmental stress; and 2) To determine if stress hormones in Oi chick feathers is related to population success. Hypothesis: Higher CORT levels in adults will predict lower breeding success.

MAIRA FESSARDI, MASTERS STUDENT,
UNIVERSITY OF AUCKLAND



▲ Maira Fessardi with Grey-faced Petrel.

Why do some seabirds die in care?

Seabirds are threatened by artificial light sources and plastic pollution. Using the Wildlife Rehabilitation Medical Database we found that 148 Cook's Petrels/Titi were received at BirdCare Aotearoa (BCA) in Auckland between January and May 2021. Fledgling Cook's Petrels on their maiden flight are often brought to BCA. Many of these Titi, and some other seabird species, brought to BCA died of unknown causes. It is crucial to understand how and why they died to enhance knowledge in this area and help reduce mortalities. By performing necropsies we seek to understand the cause of death and increase our knowledge of their anatomy, physiology, and natural history.

With a grant from the 2021 Birds New Zealand Research Fund we also aim to understand if there is a correlation between sensory features and the risk of attraction to fishing vessels, certain colours of lights, and plastics. Our methodologies will involve collaborations between colleagues from BCA, University of Auckland, and Massey University. Necropsies will be performed following standard operating procedures at BCA in order to establish cause of death followed by sensory analysis.

AUGUSTA DOMINGUEZ,
ARIEL-MICAH HESWELL & LYNN MILLER

Forest bird morphological traits

Many bird species are in decline due to the expansion of human-altered landscapes. This can be exacerbated on oceanic islands by introduced mammalian predators which are often more tolerant of human-altered landscapes. The resulting homogenisation of species reduces the diversity of functional traits in these areas, which is a conservation concern.

Previous research has shown that functional morphological traits can influence a species' tolerance to more developed habitat types in human-altered landscapes such as cities. For example, a larger relative brain size is found to increase a species' ability to overcome novel obstacles, which are more common in developed urban areas. Larger eye orbits in the skull are shown to assist birds in predator detection and avoidance. Similarly, the relative sizes of leg bones effect a birds' take-off speed, again allowing more effective predator avoidance. Greater wingspan and relative lengths of wing bones increase dispersal ability, which is important in more fragmented landscapes.

There is insufficient information on these traits for NZ native birds. Using a case study of ten flighted native NZ forest species (Kereru, Kaka, Kakariki, Tieke, Hihi, Tui, Korimako, Toutouwai, Piwakawaka, Popokatea) my research aims to answer two questions: 1. What is the intra- and inter- specific variation in the aforementioned focal morphological traits in case study species, and 2. What is the relationship between focal morphological traits and case study species' tolerance to urban habitat types. I will use analog measuring methods (callipers, microbeads) and digital techniques (CT and external laser scans). A grant from the 2021 Birds New Zealand Research Fund will allow me to conduct more micro CT scans, and contribute to purchasing a laser scanner.

LIAM McAULIFFE

Surveying viruses in songbirds

Like all species, birds fall victim to illness from viral infection. Our knowledge of the viruses that infect Aotearoa's endemic and introduced birds is severally limited. We know almost nothing about the prevalence of viruses, the frequency of transmission between native and introduced birds, and what potential viral threats introduced birds might pose to native birds. Songbirds are numerous and diverse in NZ, and their habitats overlap urban, agricultural, and native areas.

This makes songbirds ideal for initiating an inventory of avian viruses in Aotearoa, studying the effects of land-use on avian virus abundance and diversity, and exploring cross-species virus transmission among these bird species. With a grant from the 2021 Birds New Zealand Research Fund, our study will sample locations in coastal Otago, cataloging the viruses that infect songbirds, and looking for evidence of cross-species transmission. Sampling across land uses will help identify any environmental influences these habitats have on viral prevalence in bird populations.

Through consultation with iwi, Department of Conservation, and University of Otago, we have obtained permission to capture and sample 19 songbird species including Tūi, Piwakawaka, Blackbird, and Dunnock. They will be caught with mist nets, measured, banded, and have their viromes sampled using cloacal swabs. The total RNA extracted from these samples will be genomically sequenced and the resulting "metatranscriptomes" analysed for viral sequences. In this way, we will identify all viruses present in a bird's virome simultaneously and can use these data to investigate cross-species transmission and the impact of habitat on virus abundance and diversity. We will also use the viral genomic sequences recovered to design rapid molecular biology tests for use in future viral surveying of birds.

DR. BENJAMIN PERRY, PROF. BRUCE ROBERSTON,
& DR. JEMMA GEOGHEGAN, UNIVERSITY OF OTAGO



▣ Red Knot with satellite tracker: Phil Battley.



▣ Little Shearwater: Graeme Taylor/NZ Birds Online.

Satellite-tracking Red Knots

Despite being the second-most numerous Arctic-breeding wader species that visits NZ, Red Knots are classified as Vulnerable due to large and ongoing population declines. The NZ population has virtually halved over the past 30 years, with habitat loss in Asia being the likely principal cause. However, knowledge of the migration strategies and stopover sites used by knots is poor, and published data almost certainly misrepresent the migrations of NZ's knots.

Previous attempts to track their migrations have met with only partial success. Geolocator-tracking in 2013 revealed that all knots tracked from the Manawatu Estuary made a stopover in northern Australia or Papua New Guinea before migrating to the Yellow Sea, where the major staging sites were presumed to be. However, the low resolution of geolocators meant that it was impossible to be certain whether birds were in Australia or PNG, whether they made short stops in the Philippines or Taiwan or mainland China, and how far north in the Yellow Sea they flew.

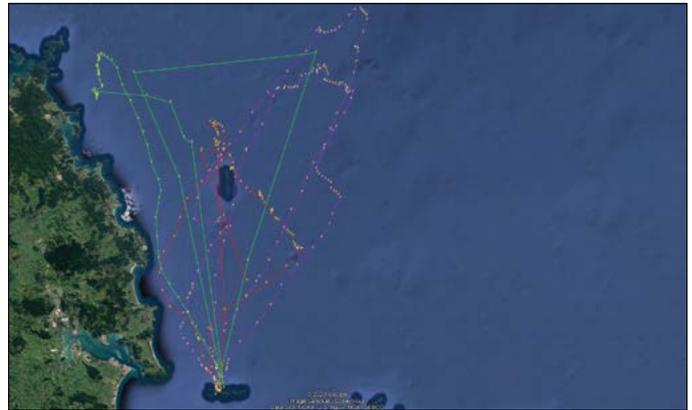
A subsequent attempt to track birds by using PinPoint GPS loggers was foiled by tagged birds likely being immature, and only one bird made an international migration, only as far as Cape York Peninsula in northern Australia. Lotek has been developing a new two-gram satellite tag that is suitable for use on Red Knots. In this project, which has received a grant from the 2021 Birds New Zealand Research Fund, SunBird tags will be used to track Red Knots in 2022, and hopefully we can finally identify the specific locations used by this species as it migrates along the world's most threatened wading bird flyway.

PHIL BATTLE, MASSEY UNIVERSITY

Campbell Albatross tracking study

A new study by D.R. Thompson *et al* has described the year-round at-sea distribution of adult Campbell Albatross, a New Zealand endemic species that breeds only at subantarctic Campbell Island. A total of 68 year-long location data sets were acquired from light-based geolocation data-logging tags deployed on breeding birds in 2009 and 2010. During the incubation and chick-guard phases of the breeding season, birds used cool (<10 C) waters over the Campbell Plateau, but also ranged over deeper, shelf-break and oceanic waters (4,000–5,500 m) beyond the Plateau. Later in the breeding season, during post-guard chick-rearing, birds exploited deeper waters (4,000–5,000 m) beyond the Campbell Plateau. During the non-breeding period, adults tended to move northwards into warmer (c.15 C) waters beyond western Australia in the west to offshore from Chile in the east.

One bird that failed in its breeding attempt in October 2009 departed Campbell Island and circumnavigated the southern oceans before being recaptured at Campbell Island in October 2010, the first example of an annually-breeding albatross species completing a circumnavigation between breeding attempts. Generally, levels of overlap between Campbell Albatross and fishing effort were relatively low during the breeding season but were circa 60% higher during the non-breeding period, underlining the need for global initiatives to safeguard this species from fishing operations. Reference: *The year-round distribution and habitat preferences of Campbell albatross*. Aquatic Conservation: 2021;1–12.DOI: 10.1002/aqc.3685.



Little Shearwater tracking study

In November 2020, a two-week trip was undertaken to Lady Alice Island to perform GPS tracking of Little Shearwaters. Of the 55 burrows located in August, 33 had chicks present (60%). Of 14 with GPS devices deployed, four birds returned within the time we were on the island. One bird returned without the GPS, and tracks were obtained from three individuals (see map). The other 10 birds did not return before the end of our time on the island, however trail cameras on three burrows indicated that the birds returned without their GPS devices after our departure, and chicks fledged successfully from all these burrows.

Physiological/Stable isotope samples were obtained from nine adult birds (blood and feather samples), and feathers from 12 chicks. Little Shearwaters tend to arrive at their burrows in the early hours of the night (9–11pm) and then remain in the burrow with the chick until an hour before dawn. All tracks were of single-day foraging trips.

Little Shearwaters displayed the previously described provisioning pattern whereby one partner undertakes daily foraging trips while the other departs for at least 5 days on a long foraging trip. None of these long trips were captured in the tracking data, and will be the focus of future investigation. Results from the tracking indicate a more inshore foraging behaviour than anticipated for Little Shearwaters. While undertaking daily foraging trips, all tracked birds remained within 70km of the coast.

One bird repeated visited an area just south of Cape Brett and foraged circa 6km offshore, while the other two foraged slightly more offshore north and northeast of the Poor Knights Islands. This behaviour correlated well with feather stable isotope samples from chicks, with lower carbon ($\delta^{13}C$) values indicating nearshore foraging compared to feathers grown by adults on migrations (which is pelagic into the central/eastern Pacific). This data is in preparation for publication, awaiting the input of stable isotope data from blood samples. GPS tracking data has been cleaned and is undergoing behavioural state analysis to profile the daily activities from the three useable tracks.

A grant from the 2020 Birds New Zealand Research Fund was used to purchase GPS loggers and to facilitate island visits during the breeding season to undertake tracking work and burrow-monitoring.

EDIN WHITEHEAD

▲ Banding a NZ Storm Petrel: Chris Gaskin.



NZ Storm Petrel at-sea captures

A grant from the 2020 Birds New Zealand Research Fund (BNZRF) was used to capture NZ Storm Petrels (NZSPs) at sea, well outside the Hauraki Gulf where they had been captured before. By targeting them in areas distant from the only known breeding location (Hauturu/Little Barrier Island), blood samples collected will contribute to a genomic study. The aim is to determine if a new genetic population exists, indicating another breeding island/s. Two capture expeditions (19-22 Feb, 1-5 May 2021) searched shelf areas north of Cape Karikari and east of North Cape (a.k.a. 'Garden Patch' and 'Parengarenga Canyons'). On the second expedition, we also captured NZSPs at the Ninepin Trench near the shelf edge north of the Bay of Islands. All captures were with a net gun. Zooplankton tows and night-lighting were also conducted to find out what prey could potentially be available to NZSPs in the capture areas.

Twenty-nine NZSPs were captured during the two expeditions (12 and 17). Details collected included: date and time of capture, band numbers, morphometrics, brood patch status, blood and feathers samples taken and condition of birds on release. No birds were injured and all were released safely. NZSP blood and feather samples, along with samples from the zooplankton tows and night lighting are currently in storage at Auckland Museum awaiting analysis.

A key objective of the NZSP Working Group is to determine if there is another breeding colony of NZSPs that may provide some reassurance that the species is at lower risk of extinction than if they do indeed breed only on Hauturu. This information will feed into a revision of the conservation status of the species. The NZSP Working Group has received a further grant from the 2021 BNZRF to address the overall population structure and level of genetic diversity of NZSPs. This will be done using a genomic approach termed 'genotyping by sequencing' (GBS), to identify and genotype molecular markers distributed across the genome in 73 NZSP individuals. DNA will be extracted from NZSPs captured on Hauturu in 2014 (n=22) and at sea, 1/ in the Hauraki Gulf in 2012 and 2013 (n=22), and 2/ in the Far North in 2021 over 300 km from the Hauturu population (n=29).

CHRIS GASKIN, DR MATT RAYNER, DR ANNA SANTURE & DR BRUCE ROBERTSON (NZSP WORKING GROUP)

▲ Luis Davilla.



Heritage Expeditions 2021-2022

Heritage Expeditions will have multiple tours of Fiordland, Marlborough Sounds, Hauraki Gulf, Kermadec Islands, Subantarctic Islands, and Antarctica during the next four months. See their ad on the back page and their website for all details: <https://www.heritage-expeditions.com/calendar/>



▲ Little Spotted Kiwi: Harry Taylor.

Toxoplasmosis in kiwi

Several kiwi species from a wild population have recently presented to veterinary care with symptoms consistent with the disease *Toxoplasmosis*. This is caused by the protozoan parasite *Toxoplasma gondii* and can present with a wide array of clinical signs, often resulting in death. Cats are the definitive host for this parasite, so domestic cats and feral cats (*Felis catus*) are the likely source of this infection in New Zealand, spreading the parasite via their faeces. Although it has been described in individual kiwi previously - in live birds and post-mortem - there is limited research into the effects this parasite may be having at a population level. The aim of this research is therefore to determine how widespread *T. gondii* exposure is in kiwi. I am grateful to the 2021 Birds New Zealand Project Assistance Fund for providing this funding.

HARRY TAYLOR

Seabirds and attraction to artificial light

Seabirds are the most threatened group of birds and one major threat includes attraction to artificial light. An increase in urbanisation and expansions of fisheries and cruise ship operations have led to more artificial lighting at night (ALAN), increasing seabird 'fall-out'. ALAN causes seabirds to become disorientated, leading to collisions with structures and groundings which can be fatal and interrupt their migration.

I travelled with a team from Northern NZ Seabird Trust to the Hauraki Gulf to explore visitation rates of seabirds to different types of lights and conduct experiments at different locations. We found that different types of boat lights had different results at different locations. Therefore, when it comes to light attraction, the location is very important. This is potentially due to differences in the seabird species composition at the different locations. Different species may have differences in sensory and visual ecology which may lead to differences in attraction to different lights. Seabird species more attracted to lights could have larger eyeballs, or differences in their spectral sensitivities due to eyeball physiology.

The Birds New Zealand Project Assistance Fund allowed us to visit Hauturu/Little Barrier Island to gather crucial data during different moon phases and expand the dataset. This helped to statistically prove that fewer seabirds are attracted to lights during a full moon compared to a new moon. We are very grateful for this funding and the results will be used for my PhD thesis and publications.

ARIEL-MICAH HESWELL, PhD STUDENT, UNVERISTY OF AUCKLAND & SAINT MARTIN'S UNIVERSITY (USA)

North Island Brown Kiwi vocal behaviour

Reliable estimates of North Island Brown Kiwi (NIBK) abundance and population densities are important in conservation as they allow decision-makers to better manage available resources. Monitoring NIBK must be non-invasive, standardised, and scalable. This project will work with Kiwitrack Ltd to develop miniature recorders embedded in the birds' radio transmitter to investigate the individual vocal behaviour of NIBK. We will equip a representative number of birds with these custom transmitters and concurrently deploy environmental acoustic recording units in the areas where the birds live to record individual and community level vocalisations simultaneously. We will analyse all recordings using AviaNZ (<https://avianz.net>) to investigate how vocal activities may vary in different contexts in order to provide insight into NIBK vocal behaviour. This will provide crucial information for the interpretation of acoustic surveys. Finally, I am very grateful to Birds New Zealand for supporting my research with the 2021 David Medway Scholarship.

ALBERTO DE ROSA

Seabird restoration in the Waitākere Ranges

Grey-faced Petrel/Oi have held on in the face of introduced mammalian predators and are now being rediscovered in small, isolated colonies across areas of the NZ mainland. These colonies are vulnerable to predation and are thought to be sustained by immigrating birds from predator-free island colonies and protection from community groups involved in predator control. The exact mechanism that allows them to breed successfully at these mainland colonies is not well understood, but is in part attributed to increased fledging success due to their proximity to richer West Coast waters. A new project seeks to understand the effects of varying levels of predator control and predator abundance on the breeding success of Grey-faced Petrel in the Waitākere Ranges. This information will help ensure they continue to breed on the mainland and underpin work on attracting more vulnerable seabird species to breed on the mainland. For example, Cook's Petrel, Common Diving Petrel, and Fluttering Shearwater have been recorded in the Waitākere Ranges but struggle to establish there.

A new study funded by the 2021 Birds New Zealand Research Fund has three aims: 1. Determine the most effective predator control operations that will allow Grey-faced Petrel populations and other seabird species to persist/establish and grow on mainland New Zealand; 2. Support community groups and iwi in the development and implementation of effective predator control to promote restoration of seabird habitat in the Waitākere Ranges; and 3. Facilitate the establishment of a long-term monitoring programme of Grey-faced Petrel ensuring the inclusion of key stakeholders such as local community groups, Auckland Council, and Birds New Zealand members.

MICHAEL FOX, PhD STUDENT, UNIVERSITY OF AUCKLAND

Letter of thanks – David Lawrie

I would like to thank the Council of Birds New Zealand for appointing me as a Fellow of the Society at the 2021 conference. This was totally unexpected and a real honour for me as an amateur bird watcher who enjoys my hobby (or is it a passion?), amongst the scientific experts who have been past recipients. It was also a privilege to receive this award at the same time as one of my wetland heroes, Dr Murray Williams. I would also take this opportunity to thank my wife, Lynne, for the sacrifices she has made over the years to enable me to dedicate time and energy into ornithological activities. This award is therefore as much for her lost opportunities as for my efforts.

Yours gratefully, David Lawrie

Tracking of Little Penguins/Kororā in the Hauraki Gulf

Two 10-14 days trips were undertaken to Motuihe and Lady Alice islands in the Hauraki Gulf in October and November 2020 to perform GPS tracking on Kororā/Little Penguins as part of a project that received a grant from the 2020 Birds New Zealand Research Fund. Of eight GPS trackers deployed on Kororā from Motuihe in October, only three were retrieved. Tracking Kororā on Motuihe proved incredibly difficult, mainly due to the small population of Kororā on the island and the difficulty in accessing birds in deep sandstone burrows. Additionally, most Kororā had to be intercepted between the sea and their burrows which meant that we were limited by the tide.

Of the 19 GPS trackers deployed on Kororā from Lady Alice Island in November, 10 were retrieved. The number of marked birds observed after dusk and before dawn indicated that a number of the GPS trackers that were not retrieved had fallen off at sea. Either the quality or quantity of superglue used to attach the trackers was insufficient and a better adhesive should be sought in future studies. Feather samples were obtained from all individuals for future stable isotope and physiological analyses.

Kororā from Motuihe travelled in a north-easterly direction to the northern side of Waiheke Island. The maximum distance tracked was circa 15km from the colony and only one of the three tracks captured a complete foraging trip. Kororā from Lady Alice Island travelled in a westerly direction toward the mainland and foraging was concentrated between Lady Alice Island and Bream Bay, although a few individuals travelled north of Whangārei Heads, or south toward Leigh. Foraging trips lasted between 1-5 days. This data is in preparation for publication, awaiting analysis of the useable GPS tracks, and will be compared to Kororā GPS tracking data from Lady Alice Island (2018) and Burgess Island (2014).

KERRY LUKIES, NORTHERN NZ SEABIRD TRUST

Wildlife Rehabilitation Conference

The Wildlife Rehabilitators Network New Zealand (WRennZ) held their biennial conference at Auckland Zoo on 14th-15th May, which was attended by over 80 delegates from bird rescue and wildlife veterinary practices from around the country, and discussed the latest developments in wildlife rescue, rehabilitation, and release. The focus was largely on birds, and the fascinating presentations highlighted a great level of professionalism, dedication, and care.

I was invited to give a presentation, which was entitled "An Introduction to Birds New Zealand", explaining who we are and what we do, and spoke about how Birds New Zealand and bird rehabilitators could co-operate on a range of issues.

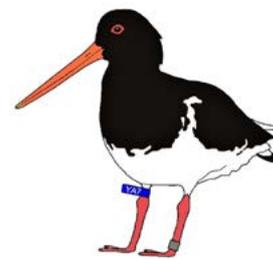
I described how Birds New Zealand could assist with bird identification, and had members who could provide advice on various species, and help in the releasing of rehabilitated birds. I explained the importance of submitting Unusual Bird Reports for rare and vagrant birds, and providing deceased birds to museums for use as collection specimens. I also suggested that we could share common messaging in our media releases and social media posts for the benefit of birdlife. Some examples included discouraging the unhealthy practice of feeding bread to wild birds, the problem of discarded fishing gear entangling birds, and the need to record instances and locations of seabirds being disoriented by bright lights.

I received very positive comments on the presentation, and it seemed to create a much greater awareness of Birds New Zealand. I especially hope that with increased co-operation we will receive greater reporting of rare and vagrant birds when they are taken into care.

IAN McLEAN, AUCKLAND REGIONAL REPRESENTATIVE



▲ Emma Williams with ET.



ET phones home to help save the Tōrea

Unlike ET the Extra-Terrestrial in the 1982 smash hit film, the ET that Department of Conservation researcher Emma Williams is holding in her hands in the photo above had no problem at all phoning home. That's because this particular Tōrea or South Island Pied Oystercatcher (SIPO) was fitted with both a highly visible red leg flag, in this case with the initials ET, and a new generation tracking device, a sort of tiny solar-powered phone, which immediately started talking to an app on Emma's mobile phone. It's all part of a joint project between the Department of Conservation (DOC), Manaaki Whenua - Landcare Research, Birds New Zealand, and the Pūkoro Miramira Shorebird Centre. The project aims to find out more about NZ's internal migrant waders so we can provide them with better protection.

Tōrea/SIPO, which breed in braided riverbeds and agricultural land in the South Island and then, as winter approaches, fly in their thousands up to warmer places such as the Firth of Thames, was chosen as a focal species because their large body size makes them an ideal candidate to carry the GPS trackers needed to show their flight paths. Like most other internal migrants, Tōrea/SIPO numbers are declining but, as Anne Schlesselmann of Manaaki Whenua points out, "Their impressive mobility makes conservation management challenging because they encounter diverse threats throughout their annual migratory cycles, including while they are on the move and in coastal wintering grounds."

Aiming to rectify that, the project got underway last year at a Tōrea/SIPO breeding area on riverbed and agricultural land in the upper Rangitata Valley which is already the subject of landscape-level predator control. Researchers deployed cameras to record the level of predators as part of a programme aimed at finding out what level of predator control in nesting areas is

necessary for successful breeding. Future research will involve a mix of nesting sites which do or do not have predator control in order to compare the breeding outcomes.

Also at the Rangitata, tracking tags were fitted to 32 adult and fledgling birds as the first step in identifying their internal migration routes and stopover sites. In addition, high visibility flags were put on more Tōrea with the aim of having them spotted and recorded by birdwatchers along the migration routes and on the wintering grounds. Initial results have indicated a high level of breeding success by the Rangitata Tōrea and birds have since been tracked dispersing to many parts of the country including the Firth of Thames.

Emma Williams, who is leading the DOC research effort, says, "So far two national routes have emerged as common flight paths for Tōrea: a northern route along the southern alps/up the western Waikato coastline, and a southern route down the eastern side of the South Island. We've also been able to identify regional site networks and hotspots for less mobile non-breeders, as well as tag fledglings to show juvenile migration patterns that remain independent from adults."

Meanwhile, many more flags and GPS tags have been deployed by various groups around the country. In early June, in conjunction with the Birds New Zealand annual conference held in Thames, a team of DOC officers caught some of the thousands of Tōrea/SIPO holidaying at a beach nearby. After something of a false start, when birds were disrupted by walkers and dogs, 115 Tōrea/SIPO plus 11 Variable Oystercatchers were caught at Kuranui Bay just north of Thames. They were all banded, the Tōrea/SIPO were also fitted with the new bright red flags, and in addition 22 of them got the new tracking tags.

Data from tags has shown that some of the tagged Tōrea regularly use the Thames 'Pak n Save' roof as a roost. Indeed, some of them will have watched you coming and going from the Thames Civic Centre venue for the Birds New Zealand conference! Since the conference, birds have migrated south to places such as Chertsey (Mid Canterbury), Mātaura (Southland), Waikaia (Southland), Wanaka, Lake Ellesmere, and Waimakariri (Canterbury), with some migrating much later than expected (the last bird migrated south on 7th November).

Emma and Anne are asking anyone who sees a tagged Tōrea/SIPO to please record the colour and the letters, and to advise DOC via email (bandingoffice@doc.govt.nz). Colour codes for engraved flags on Tōrea are as follows: RED Flag (North Island); BLUE Flag (South Island); GREEN Flag (Rakaia); ORANGE Flag (Rangitata); YELLOW Flag (Nelson/Golden Bay). If the flag only has two letters or numbers, the bird was marked as a chick, and if there are three letters/numbers, it was marked as an adult. You can also report your sightings to the DOC banding website. DOC Banding Office is also encouraging reporting of resighted/recaptured/recovered marked birds via their public sightings form: <https://app.birdbanding.doc.govt.nz/sightings> (open link in Chrome etc, not Internet Explorer).

JIM EAGLES & EMMA WILLIAMS



▣ Banded Rail or Moho Pererū: Mike Ashbee.

NZ Bird Atlas - we're halfway there!

December 2021 represents the halfway mark of the NZ Bird Atlas project. Two and half years' worth of your time and effort has gone into this nationally significant scheme, and we are over the moon with how the project is progressing. Over 62,000 effort hours (2,580 effort days) have gone into the project so far with over 185,000 checklists submitted to the Atlas *eBird* portal by more than 1,060 Atlasers.

This is even more impressive considering the ever-changing Covid situation around the country. Gathering data during a lockdown that is as scientifically valuable as possible (by adhering to the Atlas best practices) helps achieve our long-term vision. Bird observations from home can be some of the most valuable *eBird* checklists you create, because the only person to count those birds may be you! Consider doing one checklist each morning or afternoon in your garden, or from a window/balcony. Making a daily checklist part of your morning routine can be immensely rewarding, such as "sipping my coffee" counts or "walking the dog" counts. These counts will become more fulfilling as you watch your home list grow over the course of the year, and see it become part of your wider Atlasing effort over time.

Entering data across the entire country, to fill in all of the Atlas squares remains one of the highest priorities for us all. So, the recent addition of the second season's worth of DOC Tier 1 national bird count data into the Atlas *eBird* portal has significantly bolstered the spatial coverage of the Atlas community, and now nearly 92% of all 3,232 Atlas grid squares having some data in them.

Now, as we begin the second half of the Atlas project, we need to continue to keep looking hard at the finer scale details of our goal as a community. This means starting to undertake far more focused Atlasing as a community, and for that we will need to support each other across regions, to not only reach the target of 100% Atlas grid squares having data, but also documenting all of the possible species within each square, across all four seasons.

For this we're not only going to need cross-regional communication and support, but also the effective use of the myriad of specialised tools available within the Atlas *eBird* portal itself, as well as a few additional tools the Atlas team have generated. There's a myriad of ways you can tease out areas to increase Atlas effort and find new spots for some Atlasing adventures. Many of these tools can be found within the 'Explore' tab on the Atlas portal, and include the following:

Atlas Effort Map

The Atlas 'Effort Map' is by far the most powerful interactive tool, helping to provide near up to the hour information on effort hours, both diurnal and nocturnal, as well as the volume

of checklists and the species tally for each individual square, through each of the four seasons. This is a tool which we hope you are all very familiar and confident in using by now. Just by using all four of the categories available in the dropdown menu, you can render a very different picture when looking at the same spot, as highlighted below. This can help tease out areas, or times (think nocturnal surveys), that need more focus in certain squares. You can then tailor your Atlasing to go into these areas, such as a certain district, maybe even at night, more frequently to help bump up those effort hours and contribute precious time there.

Species Maps

These utilise the Atlas dataset to generate interactive maps with all the locations where a certain species has been sighted. A species map can help with targeted Atlasing, particularly for conspicuous and widespread species, helping to tease out habitats and areas that may not have been surveyed yet, within certain grid squares. For example, generating species maps for species such as spur-wing plover, makipai/Australian magpie and manu pango/blackbird may help with gauging how much effort has been put in across agricultural areas, whilst tauhou/silvereye, piwakawaka/fantail and riroriro/grey warbler, could help gauge how much of forested and/or forest edge habitats have been surveyed within grid squares. You can use whichever species you like for whatever habitat you wish to discern effort for, these are just a few examples and by no means the only ones applicable.

Grid Square Summary Pages

By clicking on a grid square and then it's summary tab in the 'Effort Map', you are presented with key summary details on the number of checklists, effort hours (both diurnal and nocturnal) for each season, as well as the project as a whole within the square. Also detailed are recent visits, but importantly each summary page records the species list for that grid square, detailing all the species detected in that square so far. This final aspect is something that can be immensely valuable when planning your Atlas outings. For instance, if you know there are agricultural sections in the square and you see that in summer, no Pūkeko or Australian Magpie/Makipai have been detected, then you can see that time spent surveying those paddocks in the summer to try detect those three (and possibly more) species is of great value.

KML Mapping Files

The Atlas team have created a set of KML files for the community to use. A KML file is a type of mapping file, and these specifically



■ Hoiho/Yellow-eyed Penguin, Katiki Pt, Otago: Michael Szabo.



■ Female Rifleman, Otuaomoto: Michael Szabo.

show the individual location of every checklist entered so far in the Atlas project. They can be opened up in mapping programmes such as Google Earth, Maps.Me, MapToaster and/or QGIS. Currently there are five files available for download from the portal, under the 'Supporting Materials' section; 'All points' which shows every point since day one (1st June 2019), and then each of the cumulative seasonal points for 'Winter', 'Spring', 'Summer' and finally 'Autumn'. Whilst we will caution that as soon as these are produced, they can quickly become 'out-of-date' as they are not updated until the end of that current season, they can be used as a useful guide to tailor your more focused Atlasing, particularly when used alongside the other tools discussed here. The Atlas team use these regularly through Maps.Me.

Atlas Target Species

One area where *eBird* really excels is showing you where to find birds, particularly those you need for the Atlas or even your 'Life List'. The 'Atlas Target Species' tool under the 'Explore' tab gives you a prioritised list of birds you personally haven't observed within a region that you can expect to find. Furthermore, you can tailor it to a specific time frame, i.e., year-round, a certain month, or a certain season by using the 'Custom' tab. Generating this list you will see the frequency each species is detected in that region as well as a 'Map' icon next to each species. Clicking this sends you to a specific 'Species Map' for that species.

Merlin Bird ID

As many members will know, Cornell Lab of Ornithology have a fantastic identification app called Merlin, which works closely with *eBird*. Using the photos, audio, and sighting data that citizen scientists upload to *eBird*, the Merlin app provides a valuable electronic guide that you can download for free on your smartphone and have in your pocket wherever you go. The Atlas team are now busy working with the Merlin team in the US to bring their cutting-edge 'Sound ID' tool to Aotearoa. We have high hopes to release the first iteration in early 2022, so will keep you posted on our progress.

Atlas monthly challenges

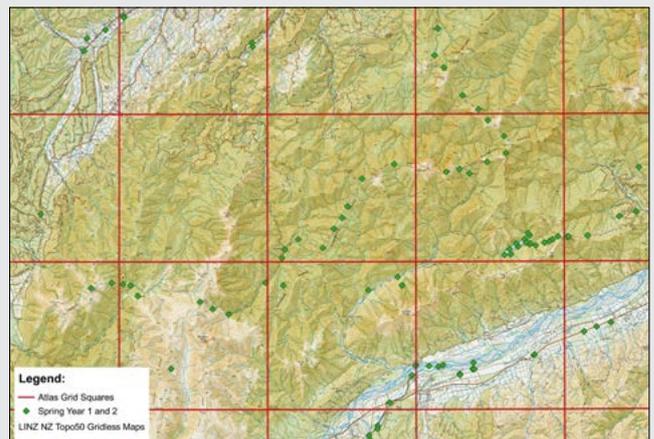
Monthly Atlas challenges will continue to be set with a variety of fantastic prizes still yet to be won purely by contributing your sightings to the Atlas portal. We thank those who have kindly donated prizes already, including Edin Whitehead, Brent Stephenson, Oscar Thomas, Kirk Zufelt, Metalbird NZ, and Potton & Burton Publishing. The challenges will vary between checklist, grid square, or even audio related, and we hope you continue to enjoy trying to qualify for them each month.

Congratulations to our previous Atlas challenge winners, Ian McLean, Christopher Tuffley, Wendy Hare, Cleland Wallace, Raewyn Empson, Paul Cuming and Mary Thompson!

Overall, we encourage using all of the tools and tips discussed above in tandem, to help tease out those gaps in your local and regional squares or even squares further afield. For those researchers and ornithologists out there conducting fieldwork this season, we really encourage you to consider uploading your bird count data, or even consider taking time to upload sightings from your remote field camp, outside a hut or whilst out and about at your field site. As the DOC Tier 1 bird count data has revealed, these can be powerful assets to strengthen the Atlas dataset in those hard-to-reach spots, and help us achieve our myriad targets, including filling in the gaps across the 'Effort Map'. Furthermore, the Atlas team will be using the tools discussed to tailor future Atlasing trips, as well as encouraging your local RRs and Atlas Coordinators to be utilising them to tailor local and regional Atlasing and birding events. If you are struggling to master any of these tools, please don't hesitate to send the Atlas team an email (nzbirdatlas@wmil.co.nz). We're happy to answer any questions.

As always, we want to thank you for contributing your valuable sightings to the Atlas *eBird* portal. We appreciate the vast amount of time and effort that you have put in so far, and we really hope you continue to enjoy the Atlas challenge for the next two and a half years. We're going to need each and every one of you to support this initiative to achieve total coverage. Stay safe and happy Atlasing!

The NZ Bird Atlas Team



■ An example of Atlas data mapping.

FAR NORTH

We had a wonderful field trip on 1/10 to 90 Mile Beach and Unahi, finding 24 Cattle Egrets and about 600 Royal Spoonbills at Unahi. It was interesting to see how few Red-billed Gulls there were; none on 90 Mile Beach and just 7 at Unahi. SIPO numbers had also dropped from 237 to 15. There was a lone Bar-tailed Godwit busy feeding on 90 Mile Beach. Looking back at last November's report it was the same with just 1 godwit and a few Red-billed Gulls.

More recently, only 250 Royal Spoonbills were still at Unahi, the rest having flown south, and 22 Cattle Egrets in fine breeding plumage were seen west of Unahi at Waipapakauri. Shining Cuckoos are back, calling in several areas around the Far North. We also enjoyed hearing a female and a male North Island Brown Kiwi calling in chorus.

– ISABELLA GODBERT

NORTHLAND

At our August meeting we had a fantastic talk from Su Sinclair about a successful Pycroft's Petrel translocation to Motuora Island near Mahurangi. Unfortunately our September and October meetings had to be cancelled due to Covid lockdown restrictions.

Scott Brooks organised 3 Tutukaka pelagic trips out past the Poor Knights Islands to 'The Petrel Station' on 2nd, 25th and 30th October. The first went out on a calm day that produced sightings of 22 different seabird species. The boat had hardly left Tutukaka Harbour when they met a constant stream of a couple of thousand Fluttering Shearwaters flying north.

As they made their way further out towards the Poor Knights Islands they encountered large numbers of seabirds rafting on the water, or actively feeding, with well over 20,000 seabirds in the area – mostly Fairy Prions and Buller's Shearwaters. Other notable sightings included a Short-tailed Shearwater, a Buller's Albatross, 6 NZ Storm Petrels, and 40 Little Shearwaters.

During the second trip 30 different seabird species were recorded with highlights including a Grey Petrel that hung around the boat for most of the day, 2 South Polar Skuas (including a dark morph), a White-chinned Petrel, about 45 NZ Storm Petrels, a Wilson's Storm Petrel, 2 Short-tailed Shearwaters, a Hutton's Shearwater, and 4 species of albatross (Antipodean, Nth Royal, White-capped, Salvin's). The Grey Petrel and Hutton's Shearwater were both first records for these trips out to 'The Petrel Station'.

The third trip recorded 27 bird species with highlights including a Long-tailed Skua, 5 albatross species (including Chatham and Campbell), 3 Mottled Petrels, 2 Pycroft's Petrels, about 50 NZ Storm Petrels off the back of the boat at once, and a Wilson's Storm Petrel. The Long-tailed Skua was a first record for 'The Petrel Station'.

– ILSE CORKERY

AUCKLAND

The restrictions imposed by the extended Covid lockdown in Auckland resulted in much of our programme being cancelled. Regular organised group surveys and beach patrols were not possible, with most

birding by members restricted to local sites near home. Monthly meetings at Unitec in Mt Albert were changed to online Zoom meetings. This had a positive effect of gaining a greater reach, with members living outside central Auckland being able to participate, or to watch the recorded meeting.

Our speakers included Dr Brian Gill on the diet of Long-tailed Cuckoos (September), Matt Rayner on the state of the Hauraki Gulf's Spotted Shags (October), and Professor James Dale on male and female colouration in birds (November).

Beach patrols were limited to those by individual members. One at Muriwai Beach south by Jeremy Painting on 16/10 found 1 Sooty Shearwater, 2 Buller's Shearwater, 1 Hutton's Shearwater, 1 Fairy Prion, 1 Grey-faced Petrel, 2 Australasian Gannet and 1 Australian Magpie. A patrol of Karekare Beach by Paul Asquith and Ian McLean on 20/1 found 1 Little Penguin, 1 Buller's Shearwater, 1 Hutton's Shearwater, 1 Fairy Prion, 1 Slender-billed Prion and 2 Australasian Gannet.

Local sightings included Spotless Crakes, with 2 seen regularly at Michaels Avenue Pond in Ellerslie, and 2 at Orangihina, Te Atatu, seen by Ian McLean on 26/9. At Parakai, Jeremy Painting saw 8 Cattle Egrets in breeding plumage on 24/10. Waders in unusual places included a Pacific Golden Plover at Ambury Park on 29/10 (rare there), and 2 Red Knots at Muriwai Beach on 25/10. We are very much looking forward to an easing of restrictions and a resumption of activities over Summer.

– IAN McLEAN

SOUTH AUCKLAND

In August, Kerry Lukies spoke about her studies on Korora/Little Penguin in the Hauraki Gulf, which was funded by the 2020 Birds New Zealand Research Fund. She used trackers to monitor the birds' foraging habits and noted their preference for shallow waters. Feather samples tested for a stress hormone were higher in birds located further away from the city, possibly due to competition for nest sites or from a fishery.

We held our first online Zoom meeting in September, when Daria Erastova spoke about her research on the influence of garden sugar water feeders on Tui, which was funded by the 2018 Birds New Zealand Research Fund. She noted it is better to use these only when other food sources are not available. In October, Adrian Riegen gave us an entertaining presentation on this year's Bar-tailed Godwit tracking project, which received a grant from the 2019 Birds New Zealand Research Fund.

In September, some of our branch members participated in a Ruru/Morepork survey, along with a large number of Predator-Free Franklin members. It was pleasing to see 143 Ruru reported from 72 locations in our region. Other birds were also noted, and the exercise helped to boost the number of night counts for several Atlas squares.

Three members joined a field trip to Tuakau WTP on 7/8 to count waterfowl where 231 Australasian Shoveler were seen, nearly all paired up, plus 286 Canada Goose, 59 Black Swan, 58 Mallard, 35 Grey Teal and small numbers of other species. A survey at Mangere WTP on the same weekend recorded

82 NZ Scaup, compared to 11 last year.

Notable sightings included large flocks of SIPO on paddocks at Aka Aka, with 240 on 25/7, 138 on 29/8 and 101 on 2/9. Sixty Cattle Egrets were seen on 23/9 in a nearby Otua paddock, after a couple of years' absence. Two Cattle Egrets were also seen at Pararekau Island in Manukau Harbour on 12/9, and a Little Egret at Pahurehure on 26/8. There was a recent report of an Australasian Bittern at Seagrove Pt, and 5 noisy Kaka at Ness Valley on 20/10. Shining Cuckoos have been heard at various locations. Lockdown prevented beach patrols in August and September, but this week we found 1 gannet, 1 Sooty Shearwater, 1 Pukeko and Prion spp. on Karioitahi Beach.

– SUE FROSTICK

TARANAKI

Covid 19 and winter meant that most members only managed to go birding in their local area. Rob Wheeler had up to 30 Tui in 2 flowering Kowhai at his property. He also put together a beach patrol kit containing much useful information for identifying beach cast birds. We will provide funding for him to produce more for those wanting one.

We managed an indoor meeting in October where it was good to catch up with everyone again. Steve Purdon gave us an Atlas update. In our region 40 atlasers have completed 4,016 checklists for a total of 106 species, 89 of 90 grid squares have some data, and Swamp Harrier, NZ Fantail and Blackbird are the top 3 species recorded.

Barry Hartley continued his long-running survey of northern river estuaries and extended it to include the roadside Pied Shag colony just north of the Awakino village. Initially there were 7 nests and 14 birds. By early October there were 12 nests and 24 birds. At Mokau Estuary there were 23 Royal Spoonbill, 37 SIPO, and 1 Emu in a nearby paddock.

Around the south coast at Sandy Bay, 4 NZ Dotterel were seen on the beach, Lake Mangamahoe was home to 15 Kereru, and along the western part of the coastal walkway numerous brightly coloured Yellowhammer were seen.

Migratory waders have been seen at Waiongana; Ruddy Turnstone, Red Knot, a couple of Wrybill, and up to 3 Pacific Golden Plovers. NZ Dotterels come and go, and Banded Dotterels should be returning by now, although numbers are in decline.

Two Steves and a Pete hit the road at 5am for the Global Big Day on 9/10 and saw Grey-faced Petrel and Little Penguin at Rapanui in the north, waders at Waiongana, and Whio and Rifleman on Mt Taranaki, but the long-staying Australasian Grebe at Lake Mangamahoe had done a runner. We steadily increased the count at various stops along the way, finishing at Lake Rotokare with Fernbird, Spotless Crane, Shining Cuckoo, Hihi, Tieke, and Whitehead/Popokatea. An early evening call from a Ruru/Morepork completed the tally as 3 weary but happy birders headed home.

– PETER FRYER

HAWKE'S BAY

In mid-August, 7 people joined a pelagic trip organised by our branch, Wrybill Tours and Dawn Buster Boat Charters, with highlights



including various albatrosses and a giant petrel. This inaugural pelagic trip was well reviewed by all participants and may be repeated in future.

Ten members enjoyed a beautiful sunny morning in September exploring a private patch of bush representing one of the last remaining remnants of native forest on the Heretaunga Plains where there were healthy numbers of Kererū and Grey Warbler.

September was a good month for notable sightings in our region, including the return of Bar-tailed Godwits to the Ahuriri Estuary from 2/9 and a possible Australasian-Northern Shoveler hybrid at the Westshore Scrapes area of the estuary on 10/9. Several albatross species were seen off Ocean Beach, including Chatham, Northern Royal, White-capped, and Salvin's, and a giant petrel.

Our October field trip saw 5 hardy members braving a cold southerly to visit Lake Runanga to see NZ Scaup/Pāpango, NZ Dabchicks/Weweia, Tūi and other songbird species.

Notable sightings in October included a flock of 94 White-fronted Terns/Tara at the Tukituki Rivermouth and increasing numbers of Bar-tailed Godwits/Kuaka (maximum count at least 245 including at least 45 juveniles) at the Ahuriri Estuary, including at least 3 with leg bands. Up to 3 Red Knots/Huahou, 6 Wrybills/Ngutaparore, 8 Pacific Golden Plovers, and 1 Whimbrel have also been seen at the estuary. Two Pāteke/Brown Teal (presumably from Cape Sanctuary) were seen on the Tukituki River at Haumoana, and a NZ Shore Plover that had been released on Waikawa/Portland Island was spotted at the rivermouth in Clive.

- THALIA SACHTLEBEN

WHANGANUI

Despite inclement Spring weather, some notable sightings have been made. This year, 1 or 2 Kākā have turned up at Bushy Park. The sanctuary is already home to thriving reintroduced populations of NI Robin and Saddleback, and a so-far sustaining population of Hihi. Kākā have twice been recorded at Bushy Park, but those birds did not stay. The current bird has been here for some months. It was photographed and filmed munching Kōwhai flowers while paying not a jot of attention to a Tūi that was frantically trying to drive it off. We wait to see if the species will establish itself naturally.

Hihi at Bushy Park are beginning to nest. Most usually do so in one of the 48 nest boxes put up in the forest for them, enabling nesting success to be tracked and presenting an opportunity to band the nestlings before they fledge. Having successive cohorts of individually colour-banded birds in turn provides us insights into the longevity and productivity of individual females and their female offspring. (As males may mate with more than one female—and vice versa—tracking the reproductive success of males can only really be done through DNA analysis.)

Among the Hihi currently at Bushy Park is one female and one male (her long-time partner) from the original 21 females and 22 males translocated as juveniles from Tiritiri Matangi in March 2013. This female, currently aptly banded BM-W, has been the standout breeder here, having fledged 58 chicks so far

from 21 breeding attempts over eight years. Of these fledglings, 21 were female and five were possible females. Only two of those females bred successfully, producing 10 female chicks in turn, of which just one bred subsequently. She fledged three female chicks.

Unfortunately, none of these survived to breed. End of story? Not if BM-W survives this season and breeds successfully again. Perhaps this time her longevity will pay off through a new cohort of productive females.

Overall, there has been a dearth of godwits here, and other Arctic migrants generally, apart from a few small groups that moved through early in the season. We live in hope.

STOP PRESS: The Bar-tailed Godwit flagged AJD returned to Whanganui on 30/10 to begin at least his 14th summer here on Whanganui Estuary since being banded in October 2008.

- PETER FROST

WAIRARAPA

We managed an interesting combination of talks and outings in spite of lockdowns. At our June meeting, entitled "Introducing some conservation bird-dogs, past & present", Paul Gasson spoke about the conservation dogs he has trained, and the variety of work they did with kiwi and seabirds. The meeting was very well attended and we all came away with enormous respect for the patience and cleverness of the dogs and their trainer.

Our June Field trip was to Whangaimoana and Lake Ferry on the south coast. The highlight was NZ Falcon encounters at both places. In August we welcomed Dr Phil Battley with his talk "Catching a flight to Alaska". Attendance of about 50 people was probably a record for us. Phil covered all the latest information from tracking godwits in their amazing cross-Pacific migrations, and how there is more than one way to get to Alaska! This was followed by a lively question session, and supper.

Our September field trip was to Fensham Reserve near Carterton where we found good numbers of Kereru, Tui, Bellbird, NZ Fantail, and Grey Warbler but no real surprises.

On 9/10 we were out and about for the annual Global Big Bird Day. We visited about 22 sites, saw/heard 57 species, and identified over 1,000 individual birds. Almost all these birds made it onto our Atlas checklists. Highlights included 3 Australasian Bittern (2 seen, 1 heard), Common Redpoll, Rook, and Shining Cuckoo.

Our October field trip was to Rewanui Reserve on the Castlepoint Road, which was alive with Tui, Bellbird, Shining Cuckoo and Kereru. We also contributed several "Feather Reports" for the Wairarapa mid-week newspaper.

Joanna McVeagh and Colin Shore have been involved in an intensive ongoing programme to help breeding Banded Dotterels on a gravelly farm pasture near Masterton. At last count 12 chicks had successfully hatched! This work has been aided by having an innovative and supportive farm owner on board.

- OLIVER DRUCE

WELLINGTON

The Global Big Day organised by eBird was held on the 9/10 and involved 51,816 people from 192 countries, including New

Zealand. The Wellington eBird region (which includes Wairarapa) recorded 229 checklists on the day, which was the most of any region in NZ and 84 more than the next busiest region, Auckland (which was in lockdown). Most fortuitously, the Big Day happened to coincide with quarterly Kapiti Island 5 minute bird-counts. The new, 3-year block of counts is being carried out in collaboration with DOC and the landowners at Waiorua. These continue a series of counts started in the 1970s and have used very similar methodology and count stations over the years. The value of the counts lies in charting changes in bird populations associated with the eradication of possums and rats, and the ongoing maturation of the forest.

New and younger members are being trained in the art of five-minute bird counting. A special shout-out goes to Colin Miskelly for organising the counts and submitting the results into eBird. The Wellington Big Day total of checklists includes contributions from members who have now submitted over 23,000 checklists to the Atlas scheme for our 105 grid squares.

While Wellington is operating under level 2 Covid restrictions our monthly meetings are limited to online 'Zoom' presentations as our meeting room will not be available until we move down to level 1. For our October meeting Lara Shepherd from Te Papa presented her latest findings using DNA methodology to help unravel the taxonomy of prions.

- GEOFF DE LISLE

MARLBOROUGH

The following report has been contributed by local young member, Jess Bell (age 12): "On the morning of 5/10, we packed up and headed for Havelock. We were off to Maud Island for five days. At the Havelock DOC office we quarantined. All our belongings are checked and packed into boxes, then loaded into a boat. Once we arrive at Maud Island, we have to quarantine all over again. The first day was pretty chill. The next day we all went to the Fluttering Shearwater colony. The first task was to check all the nest boxes for birds and eggs. That day we got 10 eggs with 9 Fluttering Shearwaters and no chicks. The whole trip, that 1 egg never had a parent on it.

One day when we went to the colony, we replaced the 34-year-old sound systems' speakers, and checked the boxes again. There were no new boxes with birds, but the other parents had swapped over in the occupied boxes. We also did a 5-minute bird count walk around the Ring Road. It's about 5km long and it took most of the day. Every 150m we stopped and logged in our location and did a 5min bird count. I did the GPS-ing. After the long walk we also set up 5min bird counts along the WW2 Fort track. We heard Silveryeye, Kereru, Oystercatcher, NZ Pipit, Tui, Grey Warbler, NZ Fantail, Bellbird, Rifleman, and so on.

At night we went down to the wharf to see the Little Penguins coming in. Apparently, they were really noisy at night under the Lodge, probably attracted to Kristin's yummy food, but I never heard them. The day we left my sister found a live but weak Little Penguin stuck down the old long-drop. Luckily the toilet had no poo in it. We found it had fallen



through the caved-in hole beside the toilet. Joseph climbed down the hole and rescued it. My Dad says it was down there for about 2 weeks. It was very skinny and happy to be rescued.

This is a project Marlborough's young members are involved in and we all had a great week."
- JESS BELL

NELSON

Spring is here, eggs and chicks are coming thick and fast. A pair of Pied Stilts have a nest with 4 eggs at the end of Boulder Bank Lane. Many duckling and cygnets are now appearing on the settling ponds at the end of Nelson Haven, including Grey Teal, NZ Scaup, Australasian Shoveler, Mallard and Black Swan. We are also monitoring 3 NZ Dabchicks for the appearance of young ones.

The Fernbird survey that is a joint venture between Nelson Council and Birds New Zealand has commenced with 10+ birds banded so far and some re-sightings made. Further mist-netting and banding has been postponed until after the breeding season to give the Fernbirds a breathing space at this busy time.

Richmond Library has a limit of 10 people in its meeting rooms due to Covid restrictions. Long-time member Willie C. has come to the rescue by hosting our meetings at his home during Level 2 lockdown. Thank you Willie.

Gail Quayle joined OSNZ in 2008 and became Nelson Regional Representative in 2012. She retired from the role in June 2021. Back in the late 1970s Gail was standing in the Nelson Haven with a daughter in a back-pack watching waders through her binoculars when she spotted another birder looking at her through binoculars. A firm friendship with Jenny Hawkins followed. Now, after a decade or so, Gail has handed over the regional rep role. In the interim she has enjoyed her time as Regional Recorder, involvement with co-ordinating CSN, being part of banding field work, counting waders, river surveys, leading birding trips, and generally holding the banner for Birds New Zealand. She can still be seen out and about with her binoculars and probably a granddaughter or two.

Over 60 years ago Don Cooper arrived in the Nelson region from the UK with a copy of Perrine Moncrieff's book *New Zealand Birds*; and as the saying goes, the rest is history. A career in forestry afforded Don many opportunities to observe birds. After retirement he joined OSNZ. Don has been active in the Nelson Region for over 3 decades, and for nearly 2 decades has served as our branch's Treasurer. Due to health concerns Don has now handed over the financial reins to an acting Treasurer.

Nelson/Tasman members would like to express their heartfelt thanks to Gail and Don for their long service at the 'Top of the South'. We wish them both a happy retirement and look forward to seeing them at our future meetings.
- PAUL GRIFFITHS

CANTERBURY

With the return of the Arctic migratory waders, local members have been enjoying searching for the new arrivals. At Lake

Ellesmere, sightings so far have included up to 4 Red Knots, 11 each of Red-necked Stints and Ruddy Turnstones, 15 Pacific Golden Plovers, and a Sharp-tailed Sandpiper. Interestingly, in mid-August, a Gull-billed Tern was seen at the nearby Lake Forsyth. While Gull-billed Terns used to be seen sporadically in the Lake Ellesmere/Lake Forsyth area, there has been a lack of reports of them there for some time.

In late October, two Grey-tailed Tattlers were spotted at the Ashburton River Mouth, along with three Ruddy Turnstones and a Wrybill. Black-fronted Dotterels also continue to be seen there, with 1-4 individuals spotted there in recent months. They have also been seen at a range of other sites. In August, some Black-fronted Dotterels were reported feeding on freshly scraped land in Rolleston. A few months later, at the start of October, 3 pairs were found on the Selwyn River.

While meetings have been restricted to 'Zoom' online recently, in-person field trips have still been able to go ahead. In September, 6 birders headed to Hinewai Reserve on Banks Peninsula. A good variety of bush birds were found, including Brown Creepers, NZ Tomtits, and Riflemen, along with the more common songbirds. Recent mid-week rambles included a trip to Horseshoe Lake Reserve in August, and a visit to Lincoln Wetlands the following month.

Overall, local Atlassing efforts have been progressing well, with 89% of Canterbury grid squares having at least some data in them so far. Over on the West Coast, 84% of grid squares contain some data. Hopefully over the next few months, as we move through the end of Spring and into Summer, local members and birders visiting the region will continue to get out to fill in gaps in the data and add sightings to existing squares.
- ELEANOR GUNBY

CANTERBURY

Otago members made use of the lockdown by birding close to home. Spring Atlas field trips started with a successful Labour Weekend trip around Alexandra, one of the highlights being nesting Banded Dotterel at 1,400m asl on the Old Woman Range. By the end of the second winter, 60.9% of Otago Atlas grid squares have some winter coverage with 97 species recorded (1 added in August 2021). A month into the second Spring, 77.6% of Otago squares have some coverage with 110 species. October's Global Big Day was busy in Otago with other bird events taking place so no coordinated effort was made. However, 18 observers submitted 72 checklists totalling 60 species, 43% of the total species observed in NZ on the day.

Interesting bird sightings have included Marsh Crakes at Tomahawk Lagoon and Lake Hayes, Cirl Bunting near Balclutha, and Reef Heron at Waitati and Kotuku at Tautuku. Forty Tui were in a Kowhai in the Dunedin Botanic Gardens and Karearea were in urban Dunedin and Queenstown. Spring breeding activity during August included a Bellbird nest-building and a SIPO with chicks. Bar-tailed Godwits returned to Blueskin Bay on 15/9 with 785 were recorded in early October. Red Knots and Wrybill were also seen. In mid-September Sooty Shearwater started returning to remnant Otago colonies. Shining

Cuckoos were recorded at Waitati on 24/9 and Dunedin on 28/9. Long-tailed Cuckoos were recorded in Papatowai and Waitati in early October. An escapee Cockatiel was seen and an Eastern Rosella in Palmerston suggests this species continues to spread.

An October Moeraki pelagic trip recorded 27 seabird species. The most numerous was Sooty Shearwater (c. 10,000). Other highlights included Black-bellied, Grey-backed, and Wilson's Storm-Petrels, Broad-billed Prion, Campbell Albatross, and Shepherd's Beaked Whales.

Spring is a busy time for our local projects: the Mopanui SI Robins started late following lockdown although nests, including 1 with chicks, were found on day 1. The Dunedin town belt surveys are in their 5th year with 23 species recorded so far. A successful training day was held as part of the Wild Dunedin Spring Fling with 25-30 people learning about 5-min bird counts. Indoor meetings were moved online for the first time and a bonus has been having members from outside Dunedin attend. Our AGM was held successfully online. Upcoming events: 14/11 winter wader count and a 28/12 Moeraki pelagic organised by Oscar Thomas (oscarkokako@gmail.com).
- FRANCESCA CUNNINGHAME

SOUTHLAND

After a quiet lead-up to Spring, Sean Jacques spotted a rare duck species on Invercargill's Tip lagoon. After dropping his son off at a function in the evening of 16/10 he did a quick visit to the lagoon and spotted a female Northern Pintail, only the second or third time this species had been reported in New Zealand.

After he posted news of his sighting, Southland was visited by the largest number of birders that I had seen in 1 location as they descended on the lagoon. The track around the lagoon is a shared pedestrian and cycling environment, and it was amusing to see people's reactions when they came across about 20 birders with spotting scopes, binoculars, and cameras all trained on the pintail.

It was also nice to be able to talk to onlookers and advise them about how the lagoon has turned up a number of rarities over the years. This latest sighting brings the total of species seen in and around the lagoon to 45 species. Local media picked up on the sighting and there was an article in the Southland Times and on the Stuff website.

Other sightings around Southland included a flock of 10 Cattle Egrets in the Waituna area on 3/8 plus a singleton at Mokotua reported by Annabel Newnam on 13/10. Sean Jacques spotted a Reef Heron west of Stirling Point, a rare species on the Southland coast.

Kit Hustler photographed a Greater Sand Plover at Awarua Bay on 5/10 still with some breeding plumage. The long-staying Terek Sandpiper was still at the head of the bay around 8/10. And a Little Tern was at Argyle Beach in Bluff where it was seen last year on about the same date (19/10).

- PHIL RHODES

Book Reviews

New Zealand Bird Paintings Ray Ching Potton & Burton RRP: \$79.99



This new large format 320 x 280 mm hard cover book is a handsome tribute to the work of New Zealander Ray Ching, widely recognised as one of the world's finest painters of birds.

Weighing in at 2.1 kg, this retrospective collection is a 200-page masterclass in painting New Zealand's birds showcasing a wide selection of his best-known NZ bird paintings, each accompanied by its own text.

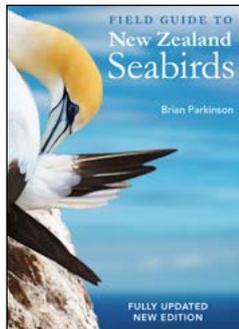
The *Notornis*, parrots, and kiwi especially caught my eye. The *Notornis* is illustrated here with five exquisite paintings and sketched studies that capture the essence of these gentle giants. Ray Ching's high regard for Kakapo shines through his delightful painting of a jovial 'chorus' of half a dozen birds, a wonderful homage to our remarkable 'owl-parrot'.

I also marvelled at his studies of the different kiwi species; what a challenge it must be to paint all that fine feather detail. According to the publisher, Ray Ching paints mainly in oils and watercolours, slowly building up layers – often leaving the original drawing peeking through the paint – to achieve his signature vivid clarity.

His style reminds me of Charles Tunnicliffe, who painted the Takahe on the cover of *Birds New Zealand's* journal, *Notornis*. Judging by some photos I've seen of Ray Ching at work in his studio, he sketches and paints some of his works from stuffed specimens, as Charles Tunnicliffe did.

If you enjoy bird art but are not yet familiar with Ray Ching's paintings, this is a must-see book.

Field Guide to NZ Seabirds Brian Parkinson New Holland RRP: \$35



This newly updated third edition of Brian Parkinson's compact 136 page 210 x 150 mm soft cover photographic field guide covers 113 seabird species most likely to be seen in New Zealand waters. The author and technical editor Tim Lovegrove have made many useful improvements since the 2006 edition.

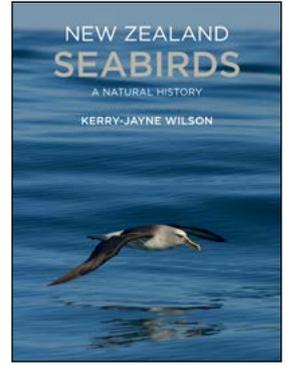
Nearly 150 new images show the different key plumages of each species (adult, immature, morphs) and wing-patterns in flight to aid identification. Each species is also illustrated with a distribution map, revised species accounts outline key ID and behavioural features, similar species, distribution and breeding areas, and population status. There is also brief advice on the places to see each species.

This new edition includes the recently split Otago Shag and Foveaux Shag, Whenua Hou Storm Petrel, and Southern Rockhopper Penguin. Both northern and southern Buller's Albatross are also here. The White-faced Storm Petrel (WFSP) entry includes the Kermadec WFSP in the text plus two photos, and they have added the vagrant Red-footed Booby.

In previous editions most species only got one photo. Most now have two to four. The photo quality is mostly very good but a few are rather variable where reproduced too large, and a few of the shags and penguins have printed too dark, obscuring details such as facial skin and eye colour.

This is a very handy guide for use at sea, with a modest price tag.

New Zealand Seabirds Kerry-Jayne Wilson Potton & Burton \$49.99



Up-to-date and comprehensive, this outstanding new 140-page book on New Zealand's amazing seabirds has it all. Like author Kerry-Jayne Wilson's 2004 *Flight of the Huia*, this is a highly accessible book that also serves as an excellent text for students with an interest in seabird biology and ecology, especially where it summarises recent research.

Over six chapters it describes all the different groups of seabirds, where in NZ they occur, their breeding biology, feeding behaviours, conservation threats, and the vast journeys they often make to find food and breed. There are also useful break-out texts outlining five places to encounter seabirds.

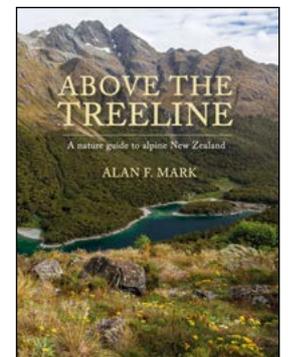
The book is impeccably produced in a large format 260 x 210 mm 1.1 kg hard cover edition, adroitly written, and well-illustrated with excellent photographs by the author, Edin Whitehead, Craig McKenzie, Craig Potton, Oscar Thomas, and a few others.

It draws on the author's decades of experience working with seabirds and was peer reviewed by seabird experts listed in the acknowledgments. The text contains some interesting anecdotes, and the maps and technical illustrations help communicate complex seabird science.

Its narrative ends by noting the importance of studying seabirds in monitoring the marine environment. Healthy ocean ecosystems are an important part of climate stability, especially in terms of absorbing carbon dioxide from the atmosphere. Seabirds also contribute to other important 'ecosystem services'.

If you want to know more about seabirds, this is the book for you.

Above the Treeline Alan F. Mark Potton & Burton \$79.99



This expertly produced new large format 28 cm x 23 cm hard cover nature guide to the alpine zone by Emeritus Professor Sir Alan Mark is an encyclopaedic tour-de-force celebrating New Zealand's alpine environment. Over 434 pages it covers everything from alpine birds, skinks, geckos, and insects to flowering plants, ferns, mosses, lichens and fungi – except the invasive introduced mammals.

The introduction describes alpine habitat types and ecology, and a section on climate change describes how extreme weather events and wildfires are likely to have an impact.

There are also contributions by Rod Morris (alpine birds) and a few other experts in their respective fields. The birds chapter is an excellent 14 page summary illustrated with 26 of Rod Morris' brilliant colour photographs, including Rock Wren, Southern Tokoeka, Great Spotted Kiwi, Kakapo, Kea, NZ Falcon, Blue Duck, Weka, NZ Pipit, Paradise Shelduck, Swamp Harrier, and the braided river specialists.

That said, the bird photos are a small fraction of more than 1,300 colour photos of alpine flowering plants, ferns, reptiles, insects, and fungi. This new, larger edition of the original 2012 title will be of most interest to readers who enjoy botanical and ecological detail.

MICHAEL SZABO, EDITOR

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