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Birds New Zealand



The Magazine of the Ornithological Society of New Zealand



Birds New Zealand




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||||| NO. 16 DECEMBER 2017 |||||

- 3** *President's Report*
- 4** *Conference & AGM 2018*
- 5** *Birds NZ Research Fund 2017*
- 8** *Hōiho research*
- 8** *Australasian Bittern tracking*
- 10** *Seabird research*
- 11** *NZ's oldest Royal Spoonbills*
- 12** *Whangarua birds, 1972-2016*
- 15** *Reviews*
- 16** *Regional Roundup*
- 19** *Bird News*

COVER IMAGE

Front cover: **Australasian Bittern or Matuku**, Waikanae Estuary, 2017. Photo by Imogen Warren



Top (L-R): Oscar Thomas, George Hobson, Joe Dillon;
Below: Eleanor Gunby, Adi-grace Moar, Michael Burton-Smith.
Photo by Les Feasey.

Young Birders celebrate

Young Birders New Zealand recently celebrated their second anniversary after publishing 14 issues of their online magazine, *Fledglings*, building a new website (<http://youngbirdersnz.wixsite.com/youngbirdersnz>) and receiving 500 likes for their Facebook page. The next issue of *Birds New Zealand* will contain a report from the bird-banding Youth Camp held at Miranda on Labour Weekend.

India's dawn chorus

Join us for a fully escorted, small-group, bird-lovers and wildlife tour in north east India. 20 days, departing 16 October 2018.

India's diversity of habitat types and altitudes give it a rich bird life. It has over 1200 bird species including 70 raptors, 30 duck and geese species, and 8 stork varieties. We visit 5 magnificent National Parks: in the Himalayas, the Ganges Plains and on the Deccan Plateau. In this season we will also see masses of migratory birds from north Asia. And wildlife, including tigers, is a bonus.



Colour India

Contact: colourindia.co.nz | elight@kiwilink.co.nz
09 422 0111 | 021 235 3932

President's Report

Australasian Ornithological Conference 2017

I have just returned from the Australasian Ornithological Conference (AOC) in Geelong, near Melbourne, where Bruce McKinlay and I presented papers along with a number of students from the various New Zealand universities. There was also a range of posters displayed from New Zealand students. The quality of the talks and posters was exceptional and I think that we should all be proud of the quality of the students and their lecturers. The Society sponsored two prizes for student talks, the recipients of which were Simon Verdon from La Trobe University and Alexandra McQueen from Monash University. Stephanie Galla from the University of Canterbury was awarded the prize for "Outstanding Student Talk". The Society also sponsored two post-graduate students - Natalie Forsdick of Otago University and Henrik Schultz of Auckland University - to help with their travel costs to attend. The next AOC will be in July 2019 in Darwin. I would urge members to diary the date and make an effort to attend.

Council member Ian Armitage wrote this summary: *The 2017 AOC was held on 8th-11th November at Deakin University, Geelong. It was very well organised. Just over 250 people registered, mostly Australians, and about 20 attended from New Zealand, as well as others from several countries in Asia. Our colourful, conspicuous and now much-travelled Birds New Zealand mascot, 'Orbell', also made an appearance, carefully attended by Natalie Forsdick. The wide range of topics presented underlined the breadth of research being undertaken by scientists, including work by many graduate and post-graduate students in Australia, New Zealand and elsewhere. What is striking is that all studies are breath-taking in their scope and reveal the innovation, imagination and a strong sense of curiosity that strongly drives the cutting-edge research in ornithology nowadays. Presentations were arranged into four categories; there were five plenary talks where presenters could speak at length on topics ranging from conservation genomics to the evolution of birds, more than 100 talks (12 minutes each) covered an extremely broad range of topics, many of considerable interest to Birds New Zealand, 15 speed talks (three minutes each), and over 30 posters. A feature of the 12-minute talks was their presentation in two parallel sessions in adjacent lecture rooms. All talks were notable for the very considerable thought and effort that had been put into them and for the high quality of their presentations. We are delighted that Stephanie Galla from University of Canterbury was awarded a prize for the Outstanding Student Talk. A photographic competition to which anyone at the conference could contribute was also popular. Two field trips were arranged, one to the extensive coastal wetlands nearby at Werribee, the other a boat tour on Port Philip Bay. Werribee wetlands was particularly interesting for the many migrant and resident bird species that could be seen, including Whiskered Tern, Red-kneed Dotterel, Sharp-tailed Sandpiper and Australian Spotted Crake. The conference was also a great place to meet new friends and to catch up with others. A 'Bird Brains' Trivia Night was popular, and there was a delightful conference dinner. I very much enjoyed attending the conference. It was a stimulating, enjoyable, relaxed and memorable experience.*

Rebranding

Following the discussions at the AGM, the rebranding exercise is still continuing and the Council is looking to present some outcomes at the next AGM in June 2018. As part of the background to this exercise, I include the following brief report prepared by Council member Colin Miskelly, setting out the history of the use of the current logo:

Our journal started out as "N.Z. Bird Notes" for the first issue in January 1943. This morphed into the more formal "New Zealand Bird Notes" for the first issue of Volume 2 in July 1946. A Takahe image based on the cover of Buller's (1887-88) second edition of "A history of the birds of New Zealand" was used on the cover of "New Zealand Bird Notes" from July 1949. The same issue announced that council

was considering changing the name of the journal to Notornis, and invited other suggestions. This all occurred in the excitement that followed the rediscovery of Takahe (also known as Notornis) by Geoffrey Orbell in November 1948, which was announced in New Zealand Bird Notes 3(4) in January 1949. The name-change to Notornis occurred for the first issue of volume 4 in July 1950, following a resolution passed by members at the annual meeting held in Wellington on 19th May. While support for the name Notornis was no doubt assisted by a wave of post-discovery euphoria, it was apparently not unanimously supported by members. The then editor (Bob Stidolph) stated that, "The adoption of 'Notornis' (of Greek derivation, meaning "Southern Bird") as the name of the Society's publication follows the practice observed by many ornithological societies overseas of using a bird name, and it is felt that members generally will welcome the change, although some may differ as to the choice of the name."

The bold Takahe image that currently adorns our journal first made its appearance on the cover of Volume 5 No. 1 in July 1952, along with an explanatory note that, "The society is pleased to be able to present a new cover design of a notornis, executed by the eminent English artist, C.F. Tunnicliffe." The Tunnicliffe Notornis was soon adopted as the logo of the Ornithological Society of New Zealand, appearing on the cover of the first Checklist of New Zealand Birds (Fleming 1953) and all subsequent editions, as well as on the Society's letterhead.

As previously advised, the image was not designed as a logo, but was a timely illustration that was utilised and has served the Society well, up to now. However, Council believes it is necessary to re-visit this aspect of the Society's branding as part of revitalising our organisation.

Financial Reports

Following discussion at the AGM on the non-audit of the accounts for the last two years, I can now report both audits have been completed and signed-off. While Council was confident in the figures that had been presented, it is good to have them confirmed by the audit process. As also discussed at the AGM, the cost of having full audits on an annual basis is becoming prohibitive because of the restrictions placed on auditors by government. Council will therefore be recommending a change to the constitution to make provision for reducing the necessity to hold full annual audits. This will be covered in a notice of motion for the next AGM.

Nominations for Council and Awards

Nominations for the Council and many of our awards are due by 28th February 2018 (see Page 4). As announced at the last Council meeting, I am standing down as President at the end of my current term, which is at the AGM in June 2018. There will therefore be at least one vacancy on the Council.

Annual General Meeting 2018

I have inspected the facilities to be used for the 2018 AGM in conjunction with Les Feasey in Paihia. Les has organised a very interesting programme in an area where there are many options for field trips. He will shortly be calling for abstracts for papers, so members should start preparing these at the earliest opportunity. The Council has also decided that there will be more emphasis placed on posters, and I would urge members to consider this medium. There is an opportunity to have these printed at no cost, utilising sponsorship funds.

Finally, this will be my last report before the end of the year and I take this opportunity to wish members a happy and enjoyable festive season. Most of all, I would urge you to take the opportunity to enjoy the birds around you and record your sightings on eBird.

DAVID LAWRIE, President

Birds New Zealand AGM and Conference 2018

The 2018 Birds New Zealand Conference and AGM will be held in Waitangi, Bay of Islands, over Queen's Birthday weekend. All events and meals will be at Copthorne Hotel, 1 Tau Henare Drive, Waitangi, Bay of Islands. Field trips: Ninety Mile Beach/ Cape Reinga; Urupukapuka Island; Tutukaka (pelagic); Waitangi Estuary (kayaking); Orongo Bay (mist-netting); and Puketi Forest. See www.osnz.org.nz for registration details, or contact your regional representative.

1st June 2018 (Friday)

6-7pm Registration

2nd June 2018 (Saturday)

8am Registration
9am Scientific Day One
5pm Birds NZ AGM
7pm Refreshments
7:30pm Informal Dinner

3rd June 2018 (Sunday)

8am Registration
8am-5:30pm Workshops & Scientific Day Two
6pm-7pm Happy Hour
7:30pm Conference Dinner

4th June 2018 (Monday)

Field Trips Departing from Copthorne Hotel

5th June 2018 (Tuesday)

Mist Netting Russell, Orongo Bay

2018 Membership Renewals

Annual membership subscriptions are due on 1st January 2018. You can now renew your annual membership subscription by credit card online at:

<http://www.osnz.org.nz/join-society/existing-members>

Renewal invoices were emailed or posted in November 2017. If you have not already done so, please notify the Membership Secretary of your email address (membership@osnz.org.nz). Please pay by the due date because we depend on your subscription to continue our work to support and encourage the study and enjoyment of birds.

Bird banding: outdated or in vogue?

Q: What does a banded Black-billed Gull have in common with a Model T Ford? A: A unique registration number! Bird banding is at least as old as putting registration plates on cars, and is used for much the same purpose. This individual alphanumeric identifier provides answers to questions such as "where from", "how old" and "how fast"? New technologies complement, but do not replace, the ancient method of attaching unique numbered bands to birds. Banding and resight data contribute to estimating population size and trends, survival and recruitment rates, species distributions and migration, and comparing long-term temporal and spatial trends. It is thanks to banding that we have longevity records such as a 52-year-old Manx shearwater, and a distance record of a Common Tern that flew from Sweden to Stewart Island in less than six months. However, to analyse long-term datasets of individually-marked birds, you first need to mark a lot of birds over a long time-period! A total of 1.6 million birds have been banded in New Zealand since 1948. Annual banding effort in Australia (50,000 birds) is double that of New Zealand (20,000-25,000 birds). However, the annual per capita banding effort in New Zealand is about two-and-a-half times greater than in Australia. Banding remains a valuable tool for individual marking of birds, and the long-term datasets held by national banding schemes represent an invaluable resource. Our anticipation is that, if this data is more readily accessible, it will also be better utilised in informing conservation management decisions.

MICHELLE BRADSHAW, Department of Conservation

Call for Nominations for Council

The three-year Council terms of David Lawrie (President), Bruce McKinlay (Vice President), Paul Garner-Richards (Treasurer) and Ian Armitage will expire at the next AGM (2018). Nominations are called for these positions. Note that the incumbents are eligible to stand again for these positions. Nominations will close with the Secretary on **28th February 2018**. Nominations papers 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 brief *curriculum vitae* of the nominated person if that person is not already a member of Council.

Denise Fastier, Secretary, P.O. Box 834, Nelson

Notice of Annual General Meeting

The 2018 Annual General Meeting will be held at Copthorne Hotel, 1 Tau Henare Drive, Waitangi, Bay of Islands on Saturday **2nd June 2018**.

Denise Fastier, Secretary, P.O. Box 834, Nelson

Calls for Notices of Motion

Notice of any motion to be considered by the 2018 Annual General Meeting must reach the Secretary before **28th February 2018** and be in writing and signed by a mover and seconder who shall be financial members of the Society.

Denise Fastier, Secretary, P.O. Box 834, Nelson

David Medway Scholarship

This scholarship, named in commemoration of David Medway, is sponsored by the George Mason Charitable Trust and 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 December 2017 and close on 30th March 2018. Criteria, conditions and application form are available online:

<https://www.osnz.org.nz/David-Medway-Scholarship>

New Convenor of the Scientific Committee

Graeme Taylor is the new Convenor of the Society's Scientific Committee. Graeme joined Birds New Zealand in 1978 when he met other members of the Society on Stewart Island. His early interest was in forest birds, but since spending a year on Campbell Island in 1984 he has become hooked on seabirds. He has served on the Birds New Zealand Council and the Rare Birds Committee, and has compiled beach patrol records and classified summarised notes. He previously ran the National Bird Banding Office for eight years and currently works as a marine scientist for the Department of Conservation in Wellington.

New Moulting Convenor

I've always liked puzzles. In birding, an understanding of what birds are doing with their feathers allows a greater understanding of birds, so it's no surprise that learning about moult has always appealed to me. Hooked by waders a number of years ago, I'm now chair of Pukorokoro Miranda Naturalists' Trust. I'm a regular on wader censuses and wader catches, and have been involved in shorebird work in Australia, China and South Korea. I'm really looking forward to taking on the challenge of moult convenor, and seeing if I can get others as excited as I am.

GILLIAN VAUGHAN



Black Stilts/Kaki mating. Photo by Glenda Rees.



Weka photo by Glenda Ree/NZ Birds Online.

Birds NZ Research Fund 2017

The 2017 funding round for the Birds New Zealand Research Fund has again attracted a large number of very high-quality applications. The selection panel has chosen 15 projects for this funding year, which are summarised over the following pages. Full details of these projects are also available on our website:

<https://www.osnz.org.nz/2017-BNZRF-Projects>

Genetics of Australasian Stilts

The endemic Kaki or Black Stilt is critically endangered. Numbers declined to a low of ~23 birds in 1981, due to predation and habitat loss/modification. Through intensive management by the Kaki Recovery Team, the wild population has increased to over 100 adults today. When Kaki numbers have been low, they have interbred with Poaka or Pied Stilts in the wild. Poaka are self-introduced from Australia and are now widespread across New Zealand. This interbreeding results in fertile hybrids of intermediate plumage, but the reproductive success of Kaki-Poaka pairs is about half that of pure Kaki pairs. For my PhD, I am using high-throughput DNA sequencing to better understand how interbreeding may have affected the genetic composition of Kaki. Thanks to the generous support of the Birds New Zealand Research Fund for one aspect of my research, I aim to reconstruct the evolutionary history of Kaki by generating whole mitochondrial genomes for Kaki, Poaka, and Pied Stilts from Australia. Combined with recently published mitochondrial genomes for Black-winged Stilts and Pied Avocets, these data will add to the story of the evolutionary history of the stilt complex, and improve our knowledge of the origins of New Zealand's avifauna.

NATALIE FORSDICK, University of Otago

Seed dispersal capabilities of Weka

Weka present a conservation dilemma. Even though they continue to decline on the North and South Islands, their predatory impacts have resulted in their removal from at least 11 smaller islands that they have been introduced to, and even from some islands where they occurred naturally. Knowledge of the positive ecosystem services that Weka may provide is limited. Although their large gape and high fruit diet suggests that they may be significant seed dispersers, little effort has been made to quantify their contribution to seed dispersal. Our preliminary research has shown they could be a key disperser for plant species that are specifically adapted for removal by flightless birds. Without better information on the beneficial effects of Weka, it is impossible to determine the optimum management decisions where Weka are involved.

We aim to assess the effectiveness of Weka as seed dispersers for three common plant species (Hinau, Miro, Five-finger) by generating mechanistic models for these native plant species. Mechanistic models combine gut processing times with detailed animal movement patterns to give explicit simulations of seed deposition patterns for a species. Short-term high-resolution movement patterns will be obtained from Weka at two low Weka density sites, and two high Weka density sites. Seven Weka at each site will be captured and fitted with GPS transmitters. Following data collection, we will develop a mechanistic seed dispersal model to estimate Weka-driven seed dispersal kernels for these native plant species. This will give a one-dimensional probability distribution of dispersal distances. The information gained from this project will give an improved understanding of the Weka's role in ecosystem functioning. This knowledge will facilitate more holistic decision-making when debating their presence on certain islands, or when considering their reintroduction to areas where they have become locally extinct.

JO CARPENTER, PhD candidate, University of Canterbury

Hihi and habitat restoration

Translocations have become vital tools for conservation. At the same time, behavioural ecologists have recognised that individuals within species behave differently. However, few studies examine the consequences of this variation for the environment. This raises the question: can the restorative effects of translocations be enhanced by selecting individuals that will bring the greatest benefits to an ecosystem? This approach could be particularly beneficial in New Zealand, where widespread losses of avifauna have been linked to severe declines in native plants. Hihi or Stitchbird make an excellent case study, as their diet of fruit and nectar links them reciprocally to plants, and frequent translocations from the closely-monitored Tiritiri Matangi Island population provide an opportunity to track individuals as they are moved to new environments. This study explores the potential for Hihi to restore and shape their own ideal ecosystems through pollination of native plants.

During Spring 2017, I will conduct an experiment linking Hihi foraging to pollination of Hangehange, an important Hihi food plant that is widespread but believed to be pollen-limited. The contribution of Hihi to Hangehange pollination will be quantified by comparing fruit set for plants accessible and inaccessible to bird pollinators, at sites with and without Hihi. Detailed habitat assessments on Tiritiri Matangi Island will be used to further explore the relationship between pollination efficiency and plant density; results can help identify sites of known plant density where Hihi reintroductions could have the greatest restorative effect and guide planting efforts at other sites toward that optimal density. I will also observe how Hihi interact with novel feeders to assess whether individual differences in cognition can be used to identify superior pollinators for translocation. Finally, in autumn 2018, I will follow up on previous work to examine the extent to which foraging behaviour changes as birds either remain at their natal site or are translocated to a novel environment.

CAITLIN ANDREWS, University of Cambridge

Integrated conservation of South Georgian Diving Petrel

Seabirds have a disproportionate influence on their surrounding environment and are thus often considered ecosystem engineers. For example, seabirds can boost the diversity and abundance of other taxonomic groups. The South Georgian Diving Petrel (SGDP) is a Nationally Critical seabird species in New Zealand. Its range is limited (< 2 ha of foredunes, Whenua Hou/Codfish Island) and its population size is perceived as tiny. Furthermore, the SGDP is vulnerable to storms, storm surges, and climate change. However, the SGDP is the only seabird species in New Zealand that breeds en masse in coastal dunes and may thus fulfil a crucial role in these ecosystems. To prevent the SGDP, and the species potentially supported by it, from sliding towards extinction, I will study the SGDP to investigate: 1) SGDP population size and sex ratio; 2) SGDP breeding biology; and 3) the effect of SGDP presence on the local herpetofauna. Specifically, I will use a capture-mark-recapture study, utilising custom-made burrow traps and spotlights, to accurately estimate the SGDP population size on Whenua Hou. Additionally, I will sex all captured individuals (using contour-feather samples) to assess a potential skewed sex ratio. Moreover, I will study the breeding biology of the SGDP using custom-made study burrows and a burrow scope, to assess SGDP growth curves, breeding phenology, and breeding success. Finally, I will assess the influence of SGDP presence/absence, slope, aspect, sand cover, plant cover, and distance to sea on Green, Southern Grass, and Southern skink densities. Combined, this study will provide the data required to structure conservation strategies to protect SGDP, as well as other species supported by this potential ecosystem engineer.

JOHANNES FISCHER, Victoria University of Wellington

Analysis of native bird calls

Despite the recent increase in conservation efforts around the country, it is still unclear whether vegetation, connectivity, introduced mammalian predators, or other human disturbances are hindering a faster recovery of native birds in urban areas. To estimate which factors most influence native birds, we have collected over 1,500 hours of audio recordings from 50 forest patches in Wellington city. To estimate the avian composition at each forest patch, we will create a citizen science project in which anyone could help us identify the bird calls in the recordings, which will be hosted on the world's largest citizen science platform, Zooniverse (1.3 million users). The data analysed by the citizen scientists will help us to generate maps with information about species diversity and frequency of native birds in Wellington city. Combining these maps with information about the vegetation, abundance of introduced mammalian predators, and human disturbances, we will investigate how different factors influence native avifauna in urban areas.

VICTOR ANTON & MARKUS LUCZAK-ROESCH

Acoustic bird identification

We aim to test if passive acoustic monitoring associated with analyses such as automated identification and acoustic indices can effectively measure bird community composition differences between a protected and an unprotected area. The field work was performed in The Ark in the Park (Waitakere Ranges Regional Park), an area with a high level of pest management, and in the Fairy Falls (Waitakere Region), where there is no pest management. As a result of conservation efforts in The Ark in the Park, bird species such as Whitehead, North Island Robin, North Island Kōkako and Kaka can be seen again at the region. Using sound recordings made at these two sites, we want to identify which acoustic indices are better for studying the New Zealand forest soundscape, with a special focus on the bird community.

IVAN BRAGA CAMPOS, University of Auckland

Post-fledging dispersal of mainland Hōiho

Very little is known about the parameters that shape Yellow-eyed Penguin or Hōiho dispersal away from the natal area. Less than circa 19% of each cohort survive the juvenile year, and less than c.12% survive to breed at least once. These figures are in stark contrast to the recruitment of c.26% of each cohort recorded by Richdale (1957). Juvenile Hōiho have been resighted as far north as Hawke's Bay (DOC, unpublished data), with most sightings occurring on the Canterbury Coast, but generally they spend most of their first year at sea, with survivors returning to near their natal area by the austral spring. It is expected that the mainland population of Hōiho will be locally extinct as early as 2043 (Mattern *et al.* 2017), with the decline in juvenile survival playing a critical part in the collapse of this population. Extensive modelling of the mainland population's demographics suggests that regional threats, such as commercial fishing interactions and competition, are likely to explain most of the variation in mainland Hōiho numbers, but they remain difficult to measure. Without detailed data on the patterns of juvenile Hōiho dispersal and overlapping industrial activities that might increase juvenile mortality during this highly-specialised migration period, we cannot provide thorough evidence to conservation and fisheries managers to appropriately manage both fishing and endangered species. I plan to deploy three Hōiho fledglings with satellite tags in February 2018, and to track these fledglings during their dispersal period for four months. The satellite tags will be deployed from February 2018, and will be tracked from 1st February to 30th May 2018. This time period has been chosen based on a literature review of satellite tag attachment longevity in sympatric species, as we do not expect that the tags will stay attached for longer than 120 days. The outcome of this study will inform regional councils and conservation and fisheries managers of the dispersal strategies of wild-fledging Hōiho, and to determine areas of potential conflict with commercial fisheries and other industrial activities that might negatively affect juvenile Hōiho survival (e.g. sewage disposal, dredge spill disposal, trawling).

MELANIE J. YOUNG, Phd Candidate, University Of Otago

Buller's Shearwater population survey

Buller's Shearwater is endemic to New Zealand, where the only breeding site is the Poor Knights Islands group. The objective of this study this coming season is to investigate Buller's Shearwater populations at Aorangi Island in the Poor Knights Islands group using the same methods employed on Tawhiti Rahi Island in 2016/2017. Combined with data from last season, we aim to have a population estimate for this species by the end of 2018. These data could potentially lead to a change in the conservation status of this threatened species, and its management in New Zealand. We are grateful to the Birds New Zealand Research Fund for funding.

CHRIS GASKIN, Northern NZ Seabird Trust

Benefits of membership

You can join Birds New Zealand today for just over a dollar a week. Our subscription fee of \$70 per year is very reasonable; for students it's just \$35 per year (see www.osnz.org.nz for more details). You will receive *Birds New Zealand*, our quarterly colour magazine, and *Notornis*, our acclaimed quarterly colour scientific journal. To join us, please visit our website and fill out the online membership form: www.osnz.org.nz

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

Or contact your nearest Regional Representative via: www.osnz.org.nz



Great Spotted Kiwi photo by Matthias Dehling/NZ Birds Online



This tiny cave leads to an extensive network of tunnels and caves that Tawaki use, including for nesting. Photo by Thomas Mattern.

Great Spotted Kiwi distribution

The Great Spotted Kiwi or *Roroa* population is declining at about 2% per annum. The goal of the Kiwi Recovery Plan is to turn this decline into a 2% per annum increase. However, obtaining the reliable distribution data necessary for effective management is challenging for a secretive, nocturnal species that is largely restricted to remote mountainous habitat. We are using acoustic recorders to determine the current distribution and relative abundance of *Roroa* across 650,000-ha of north-west Nelson to compare the current distribution with that determined 20-30 years ago; to provide a baseline against which to assess future changes in distribution and population of *Roroa* in north-west Nelson; and to increase understanding and support for *Roroa* by involving conservation professionals and volunteers in deploying acoustic recorders. Preliminary results from thousands of hours of audio recordings were presented at the 2017 Birds New Zealand Conference. Funding from the Birds New Zealand Research Fund will enable us to deploy recorders in areas that have been inaccessible to date, and to fill crucial gaps in our understanding.

SANDY & ROBIN TOY

Genetic health of crested penguins

Three of the eight crested penguin species are endemic to New Zealand and its Subantarctic Islands. Past surveys have suggested that all eight species are declining. Recently, several studies have revealed important aspects of species biology and conservation in two other New Zealand penguin species (Hoiho, Little). The genetic health of crested penguins however, is very poorly understood. This project will assess genetic proxies for population size and provide new insights into the genetic health of the three declining New Zealand endemic crested penguin species: Fiordland Crested/Tawaki, Snares, and Erect-crested. We will use a cost-effective DNA sequencing technique that generates several thousand genetic markers per individual, allowing comparison within and between species. This technique is a powerful method that can pinpoint candidate genes important for adaptation to climate change. Such knowledge is integral for projecting the longevity of threatened species, such as crested penguins. High quality blood samples were kindly collected and made available to this project by Birds New Zealand members, The Tawaki Project, NIWA, and Museum of New Zealand Te Papa Tongawera, under DOC collection permits. The project proposed will provide critical data, feeding into future conservation management strategies. The Birds Zealand Research Fund has provided funding for genomic sequencing that will include samples from all three endemic crested penguin species.

THERESA COLE, University of Otago & Landcare Research

Marine ecology and diet of Tawaki

This spring, the Tawaki Project will be completing the fourth consecutive year of field work on the marine ecology of Tawaki or Fiordland Crested Penguin. With the substantial help of Birds New Zealand and many dedicated researchers, we have studied various aspects of their biology. This year, in addition to studying the penguins' foraging behaviour while raising chicks using GPS dive loggers, we have deployed satellite tags on penguins during

the pre-moult dispersal, and are currently fitting GLS loggers to study their migration over the coming winter. Moreover, using feather, blood and scat samples, we will begin to shed some light on the penguins' nutritional preferences and prey composition in different habitats. To date, we have recorded over 150 Tawaki foraging tracks during the chick rearing and crèching stage of breeding, documenting significant site-specific differences in foraging ranges and diving behaviour. The tracking data also provides new data on foraging hotspots, which will be very useful when it comes to the mitigation of anthropogenic impacts on the species in the future, be it through establishment of marine protected areas or evidence-based assessment of environmental impacts of industrial developments (e.g. proposed water pipeline/Jackson Head). Using satellite transmitters, we followed 20 penguins from Gorge River on the West Coast on their pre-moult journeys and found that Tawaki travel much longer distances during this crucial period than other crested penguins. This is in stark contrast to their significantly shorter foraging ranges while breeding. This finding paints a picture of a species that has balanced its breeding distribution between benefitting from highly productive coastal environments during breeding, while having to travel long distances to oceanographic features in the Subantarctic regions outside the breeding period. This also fuels the hypothesis that the species may be doing better than previously thought, with population increase and range expansion both being realistic possibilities.

THOMAS MATTERN, University of Otago

Tawaki foraging strategy plasticity

Tawaki or Fiordland Crested Penguin breeds along the south-west coast of the South Island, which distributes them across some of the most diverse marine habitats of any penguin species. This apparent habitat plasticity suggests that they may be better equipped to tailor their foraging strategy to a variety of local environmental conditions. As global climate change and human disturbance alters prey abundance and diversity, assessing the foraging strategy plasticity of Tawaki is vital for understanding their foraging ecology and dietary preferences. This study aims to determine the foraging trophic position of Tawaki across the entire breeding range during both the breeding season and the pre-moult forage. Previous dietary studies required the extraction of stomach contents to determine prey composition, but we are using a minimally invasive technique not previously employed on this species: stable isotopic analysis. For this, blood and feather samples are collected from penguins at three locations across their range (Jackson Head, Milford Sound/Piopiotahi, Whenua Hou/Codfish Island) during the breeding season. By using both blood and feather samples, we gain vital information for two critical periods of the Tawaki's year. Whole blood records dietary information from the previous month (early chick rearing), while feathers reflect foraging during the pre-moult period that fuels feather growth. From these samples, the unique ratios of nitrogen and carbon isotopes will be analysed to determine the trophic position of prey consumed and the latitude of important foraging areas. The information gathered during the study will help provide much needed insight into the dietary preferences of this species, as well as confirm just how adaptable this enigmatic species truly is.

JEFF WHITE, Marshal University, West Virginia/USA



■ Chris Muller with Hōiho. Photo by Rebecca French.

Impacts of disturbance on Subantarctic Hōiho

The purpose of this research was to study the effects of disturbance on Hōiho on Subantarctic Enderby Island, which has an estimated population of 300 breeding pairs. Funding from the Birds New Zealand Research Fund was used to purchase a Sirtrack Ultra Receiver and ten VHF transmitters to locate nests. This enabled population estimates and monitoring of Hōiho transits, foraging behaviour and nesting success throughout the breeding season. A motion sensor camera was also purchased, which was used in conjunction with an automatic chip reader to conduct a mark-resight study and monitor foraging behaviour.

We conducted 95 controlled approaches during the 2016/17 breeding season, as well as 81 transits recorded without disturbance, and 32 observations of tourist-penguin interactions. These data have been used to determine the behavioural consequences of human disturbance, and model the probability of disturbance at different approach distances. The results indicate human presence caused a significant drop in the probability of a successful transit to or from their nest, and significantly increased vigilance and decreased maintenance behaviour. Modelling showed the distance from human to penguin is a significant predictor of the likelihood of a bird displaying disturbance behaviour, with the current minimum approach guideline of five-metres not sufficient for preventing disturbance. These findings are in the process of being submitted to a peer-reviewed scientific journal, and a report has been provided to the major stakeholder (DOC).

Over 100 nests were found in the 2016/17 breeding season, with a subset (52 nests) checked regularly throughout the breeding season to investigate survival rates at different breeding stages and compare breeding success between a disturbed and undisturbed site. At the end of the season, the chicks were weighed just before fledging to provide a measure of condition and a prediction of juvenile survival in the subsequent year. Chick weight and size are also being compared between the Subantarctic and mainland populations. These data are currently being analysed. Preliminary results suggest a small difference in chick weight and size between the two sites, and some differences between the mainland and Subantarctic populations.

REBECCA FRENCH, MSc student, Massey University

Hōiho nest camera study

In the 2016/17 breeding season, 21 nest cameras were placed adjacent to selected Hōiho or Yellow-eyed Penguin nests on the Otago coast. Timestamps were synchronised to determine foraging trip departure and arrival times, time of changeover between adults, the frequency and timing of feeding events, and any behaviours that may reduce the frequency of feeding events, including display between mated pairs, or interference from other penguins. Hōiho productivity is affected by food quality and quantity, but little is known about individual chick provisioning strategies relative to their diet. At almost all the nests observed, it was possible to determine the exact age of both chicks, as the eggs could be seen pipping. Birds were differentiated on camera by individual markings or bands, and transponder numbers or bands were checked when the camera batteries and SD cards were changed.

Most of the feeding exchanges were facing the camera, and when the parent bird had its back to the camera it was possible to deduce feeding exchange events from its posture. Each chick was measured at least twice during the guard stage during checks for avian diphtheria, and it was possible to determine when chicks acquired their secondary down from the camera observations. As chicks became more mobile in the latter part of the guard stage, the nest was no longer the focal point for feeding exchanges, and as a result, the cameras were no longer effective at capturing feeding information past 30 days of age.

Several data-logging options were investigated, with the most practical being logging events and times in Microsoft Excel. So far, 14/21 cameras have been logged. Unfortunately, there is no easy way to automate this procedure, with each camera taking 1-2 days to manually log. There were some technical problems with cameras and the equipment set-up.

Stoats, ferrets, cats, sheep, mice, rats, hedgehogs, possums, New Zealand Fur Seals, Southern Black-backed Gulls, Red-billed Gulls and Titi were observed in close proximity to all penguin nests. However, adult Hōiho only mounted a defence response to the seabirds encountered (including non-breeding male and juvenile Hōiho), and one adult Hedgehog. Interestingly, more nests failed due to non-breeding male Hōiho interference than any other cause (3 nests), with avian diphtheria being observed intermittently (2 nests failed). Two nests observed at the same site were assumed to have been predated by stoats, with stoats being seen on camera at the nest, but the predation events were not seen. Three chicks went missing at three nests, with the camera not capturing these events. The presence of predators in close proximity to penguin nests has resulted in the establishment of mustelid trapping at two breeding sites for the 2017/18 season.

MEL YOUNG, PhD candidate, University of Otago

Coccidia in kiwi creches

Seven motion sensing cameras were set up within the outdoor kiwi creches of an Operation Nest Egg institute. These creches are notorious for *coccidia* infections and weekly testing is required to determine the need for treatment. This research used footage to determine the exact time of excrement during the night of each faecal sample. Following individual faecal oocyst counts (FOC) on the samples it was possible to determine the varied rate of oocyst excrement throughout the night. In total, 82 samples were collected across 18 nights and four different kiwi. Oocyst counts ranged from 0 to >328000opg. At least one positive FOC was found on 17 of the 18 nights and about 75% of all samples were positive, suggesting high prevalence of *Eimeria* infection. The results show that high oocyst counts are dependent on time, and the *Eimeria* spp. affecting brown kiwi exhibit peak shedding between 3am and 7am with few or no oocysts shed between 8pm and 12pm. The time slot of 12pm to 3am contained no consistent pattern of statistically significant differences and it appears this time is a transition period from non-shedding to peak shedding. These results increase our current understanding of the biology of *Eimeria* spp. affecting brown kiwi and have important implications for the management of creches.

HARRY TAYLOR, Msc Student, Massey University



▣ Study volunteers.

Eastern Otago New Zealand Falcon/ Kārearea study

Year two of a three-year New Zealand Falcon or Karearea study has started in the coastal Otago area around Dunedin. Overall, the research aims to inform conservation management of Karearea in conifer plantations and adjacent conservation land in the greater South Island, and specifically in the coastal Otago area.

Birds New Zealand provided critical financial support in this project's first year, which allowed us to test whether the project could return robust and meaningful data. Our first-year results clearly indicated that a three-year study is feasible and justified, with funding now secured from other sources for two more years.

In the first year, a minimum 18 pairs of breeding Karearea were identified in conifer plantation and native forests surrounding a centre of farmland (the Taieri Plain). Eighteen pairs are clearly a minimum estimate.

The project's small budget limits surveys to a proportion of the habitat in any one falcon breeding season. Records accumulated over three years will enable a baseline estimate of the breeding population to compare with future population estimates.

Thirty Karearea were captured and leg-banded in the first year; 12 were breeding adults and 18 were juveniles. Banded individuals will enable survival rates to be estimated in time.

One banded female was regularly seen in a suburb on the edge of Dunedin throughout last winter, nine kilometres from where it nested last season, and is again nesting this season. Thirteen nests were located from 13 pairs and 24 chicks were produced.

These data will be used along with data from the second and third field seasons to estimate nest survival rates. Birds New Zealand members provided valuable support for fieldwork and we also welcomed 'new converts' such as forestry staff and contractors who helped with falcon capture and banding in their spare time, often bringing their children.

GRAHAM PARKER

Lake Taupo Grey-faced Petrels

Four grey-faced petrels were found on the shores of Lake Taupo in mid-January 2016. Three were dead and one was taken to Massey University, which recovered and was subsequently released. More recently, on 1st November 2017, another one was found dead, this time at Pukawa Bay beach, Lake Taupo.

JANE WILLIAMS, Department of Conservation



▣ Australasian Bittern photo by Imogen Warren/NZ Birds Online.

Seasonal movements of Australasian Bittern in Hawke's Bay

Australasian Bittern or Matuku have recently been reclassified as Nationally Critical, the same threat classification as Kakapo. This reflects recent national declines in Australasian Bittern numbers and distribution, which appear to be occurring hand-in-hand with wetland loss and degradation. For the past three years, funding from the Birds New Zealand Research Fund has been used to help collect locational data to show the seasonal movements of ten male bitterns in the Hawke's Bay region.

All birds were captured on Lake Whatumā, near Waipukurau, during two breeding seasons (September–November, 2014 and 2015). Results so far have shown that male Australasian Bitterns utilise a complex network of wetlands, mostly within a 15-km radius of their breeding site. These data are still being collected and analysed. However, key observations and findings can be summarised as follows:

1. Australasian Bitterns have high site fidelity and predictable movement patterns. So far, individual marked birds have consistently returned to the same sites to breed and feed seasonally.
2. Their territory size differs seasonally. During the breeding season, average territory sizes on Lake Whatumā were 12.46 ha, inside which males concentrate their booming within a 0.84 ha area. However, as soon as breeding is over, the male birds leave the lake to roam across other wetlands in central Hawke's Bay.
3. Survival of adult male Australasian Bitterns is high. Four of the ten birds followed to date have survived beyond the battery-life of the transmitters they carry. Two birds have died: one from starvation, and the other from causes currently being investigated. The remaining four birds are still alive and being followed.
4. Australasian Bittern movements are driven by limited and variable resources. Variability in their movements suggest home range size and the timing of movements may be resource related. In particular, water-level changes appear to dictate when birds arrive/leave Lake Whatumā and the onset/completion of breeding.

Overall, this study has extended the boundaries of what is currently known about Australasian Bitterns in Hawke's Bay, and nationally. The Birds New Zealand Research Fund has contributed substantially by supplementing the fuel costs of local Birds New Zealand members, providing an opportunity for them to actively participate in this research. Results have so far enabled us to identify additional areas of suitable habitat and sites that are of key importance for this species within Hawke's Bay.

Perhaps more significantly, these results have changed our approach to the management of Australasian Bittern populations. This study suggest wetlands should be managed for Australasian Bitterns on a catchment level, rather than by concentrating on single sites. Also, pockets of habitat, such as spring-fed creeks, small raupō-fringed ponds, and areas of rank grass along farmland/creek edges, may appear small but are still valuable for Australasian Bitterns (and therefore worthy of protection). These sites become particularly important if the birds don't have many wetlands nearby that they can visit, should resources at their main site change.

EMMA M. WILLIAMS

Marine ecology and breeding biology of Tawaki

This year, Tawaki breeding success appears to be exceptional. At all three study sites (Jackson Head; Harrison Cove in Milford Sound/Piopiota; Codfish Island/Whenua Hou), several nests raised both chicks to the crèching stage. Considering that crested penguins generally lose one of their eggs or chicks early in the breeding season, this observation not only overthrows a popular generalisation of Eudyptes as 'obligate brood reducers', but also indicates that foraging conditions currently seem to be exceptional. Foraging ranges of birds from the West Coast are largely in line with that observed in 2014, another good breeding year for Tawaki. Penguins from Jackson Head generally stayed within 60 km of their breeding colonies, returning on a daily basis to feed small chicks, and every second day during crèching. In Milford Sound, penguins seldom foraged further than four kilometres from their nest sites, staying in the fjord throughout the chick rearing period. On Codfish Island/Whenua Hou, the penguins either proved to be coast 'huggers', following the eastern coastlines of the island on their daily foraging trips, or foraged some 20 km to the west. With one exception, the birds tended to stay away from Foveaux Strait and, thus, out of harm's way with regards to the heavy set-net fishing presence in the region which is a known substantial impact on Hoiho/Yellow-eyed Penguins. However, observer data suggests that Tawaki breeding along the southern Fiordland coast sadly share this fate with Hoiho.

Earlier this year, a satellite telemetry study conducted on Tawaki from Gorge River during their pre-moult journeys concluded successfully. It showed that compared to other crested penguins, Tawaki travel far greater distances during this crucial stage of their annual life cycle. Some birds went to the Subantarctic Front, 2,000 km south of the NZ mainland. Others travelled to the South Tasman Rise, about 1,000 km south of Tasmania and 1,500 km from their home colonies. Paradoxically, birds leaving their colonies later would also cover greater distances. This season, the project will deploy more GLS loggers on penguins from all our study sites, to allow us to track at-sea movements over the next year to gain new insights into the species' winter migration. The invaluable ongoing support of Birds New Zealand has allowed us to significantly advance our knowledge of Tawaki.

THOMAS MATTERN, University of Otago

Understanding how translocation may impact Mottled Petrel nestlings

Using Mottled Petrel as a model species, the main aim of this research is to study the cumulative impact of translocation and associated activities on petrel chick physiology in order to determine the most stressful part of translocation, and enable mitigation of these stresses in the future. We also aim to examine how these stresses could affect the dynamics exhibited by newly

establishing petrel populations. A translocation of 94 Mottled Petrel chicks from Whenua Hou/Codfish Island to Boundary Stream Mainland Island was undertaken in April 2017, as part of a wider restoration project at the translocation site led by Poutiri Ao ō Tane. Blood samples were collected and physical assessment of chick condition was recorded prior to, during, and after this process. Blood sample and data analysis are currently being undertaken. Preliminary evidence shows that Mottled Petrel chicks are capable of mounting a full, adult-level stress response, and as such may be vulnerable to the impact of chronic stress caused by translocation events. The outcomes of this research will help us to understand the impact of translocation and associated activities on chick physiology and enable mitigation of these stresses in future. The results of this research will also assist our understanding of challenges and dynamics exhibited by newly establishing populations. This information will be particularly valuable to the management of often threatened species undergoing translocations, especially those that exhibit similar life history characteristics to petrels. The researchers would like to acknowledge the financial support of Birds New Zealand.

RACHAEL L. SAGAR, PhD candidate, University of Auckland

Biology of Buller's Shearwaters at the Poor Knights Islands

This study investigated Buller's Shearwater populations and breeding biology at the Poor Knights Islands by using burrow checks, acoustic surveys and population models. Teams of volunteers were on Tawhiti Rahi for 25 days in December, January and March. Overall, we established three large permanent plots and surveyed them for burrows, occupancy and chicks. Seventy random plots were surveyed and transects established across the island in all habitats. Forty acoustic recorders were deployed in permanent plots and on transects between December and March and automatic cameras placed at burrows to observe incubation and feeding shifts. We also measured and banded adult birds and chicks where possible. In total, we surveyed 2,375 square metres of random area for burrow density which ranged from 0 to 44 burrows in six metre diameter plots. Burrow occupancy was found to be 51.7%. Data gathered on burrow density and occupation, habitat, breeding success, incubation and feeding shifts, has allowed us to develop a population model and estimate for this species on Tawhiti Rahi. Our preliminary population estimate for Buller's Shearwater at Tawhiti Rahi is 137,451 breeding pairs. Our research is a crucial step in understanding the status of Buller's Shearwater and will provide a baseline estimate for future population monitoring of this species and investigations into how fisheries and climate change may be indirectly impacting seabird populations in New Zealand and the Pacific Ocean. Due to extreme weather we were unable to conduct a planned comparative survey on Aorangi Island. We are grateful to the Birds New Zealand Research Fund for funding.

JAMES ROSS, Dr MEGAN FRIESEN & CHRIS GASKIN,
Northern NZ Seabird Trust

Brown Skua movements

Rebecca Hohnhold and I visited South East Island to study space-use and diet of Brown Skua. Tracking data from previous seasons suggested differences in foraging behaviours between female and male Brown Skuas. However, more information was required to confirm that this pattern exists in their respective diets. In October 2016, we deployed GPS devices on 45 Brown Skuas, of which we retrieved 37 functional loggers after two-to-four weeks of deployment. Consistent with observations in previous years, females foraged longer on farmland and males foraged more in bush and ocean habitat. Stable carbon and nitrogen isotopes of blood reflect diet representative of the breeding season. To test whether sex-specific differences in movement data were also reflected in dietary composition, we collected blood samples from

all tracked individuals. Tissue samples from skua prey remains were also collected as isotopic references.

Preliminary analysis suggests that sexual foraging segregation is observed in both Brown Skua movement patterns and dietary composition. While females showed strongly depleted carbon stable isotope values indicative of a terrestrial diet component, males showed carbon values representative of a mostly marine diet. We are now analysing the data in more detail. Using isotope mixing models, we aim to determine which prey species contributed most to the diet of female and male Brown Skuas. Movement data from GPS tracking devices suggests female Brown Skuas foraged predominantly on farmland. If diet models reveal that sheep constitutes a major diet component for females, these findings underline the importance of communicating Brown Skua foraging ecology to farmers, who are legally allowed to cull Brown Skuas when they are perceived as a threat to their livestock.

HENDRIK SCHULTZ, University of Auckland

Australasian Gannet diet and predator/prey interaction

Australian Gannets or Takapu in the Hauraki Gulf periodically plunge dive on shoaling fish and squid. This phenomenon, and the value of the Gulf for a range of recreational and commercial activities, is dependent on the resilience of this coastal ecosystem. All ecosystems are characterised by a complex range of predator-prey interactions represented by food webs. Over time, changes in the importance of particular interactions within such webs are likely to reflect the impact of both natural and human-related impacts on component parts of these food webs. Analysing the diet of a range of top predators, including seabirds, is one approach to providing some indication of the state and health of this coastal ecosystem.

Based on analysis of regurgitate prey from the crop of adult gannets and the stomach contents of squid and fish eaten by gannets, we have made substantial progress towards characterising the range of species that form part of the food web on which gannets and some other seabirds depend. Identification of primary and secondary prey of gannets has used traditional approaches using visible characteristics of ingested prey and molecular approaches based on the sequencing of the DNA of prey recovered from more digested and excreted food remains. Our results to date have confirmed the general importance of surface shoaling fish, such as Jack Mackerel and Anchovy in Australasian Gannet diet, but have also highlighted somewhat unexpectedly for 2017, at least, that the northern Arrow Squid (*Nototodarus gouldi*) was an important part of the diet. Analysis of squid and fish stomachs has suggested a central role of a local krill species (*Nyctiphanes australis*) in the food web at lower trophic levels.

Collection of fresh stomach samples from seabirds is a time consuming and labour-intensive activity. The demonstration that we could also use molecular analysis of prey DNA on more easily collected faecal samples would suggest a powerful, more sustainable approach for longer-term studies on gannets and other seabirds. Such studies are important if we are to use this approach to monitor aspects of the health of the ecosystem.

NIGEL ADAMS, Auckland Unitec

Urban restored forests and birds

We are monitoring birds and introduced predators at 43 sites in Hamilton and New Plymouth that represent three types of urban forest: unrestored (6), restored (26) and remnant (6), as well as the nearest non-urban forest remnant to each city (6). Bird counts are conducted along fixed-width transects in the spring and winter to measure bird species richness and diversity. Introduced predators are monitored using wildlife cameras and chew cards. We have conducted two seasons' worth of fieldwork (spring 2016, winter 2017) and are gearing-up for the spring 2017 season. A total of 529 birds from 25 bird species were recorded during the spring 2016 fieldwork: nine native and 16 non-native. The nine natives were Silvereye (at 40 of 42 sites), New Zealand Fantail (31), Grey Warbler (22), Tui (21), Sacred Kingfisher (16), Kereru (7), Bellbird (2), New Zealand Tomtit (2) and Whitehead (2). Bellbirds, Whiteheads and New Zealand Tomtits were only detected in non-urban forest remnants, and Kereru only in non-urban forest remnants and two urban remnants in New Plymouth. Preliminary analysis of the data showed that Grey Warbler, Tui and Kereru tended to be associated with forest remnants and older restoration plantings. Open country species, such as Goldfinch, Starling, Greenfinch and Yellowhammer, were typically found at young restored sites. Unrestored sites were mainly associated with non-native species, such as Common Myna and Song Thrush. The most frequently detected introduced predators in Hamilton during the spring 2016 field season were Cat (41% of camera triggers), Hedgehog (20%) and Possum (17%). The most frequently photographed animals/introduced predators in New Plymouth were Dog (32%), Cat (19%) and Hedgehog (15%). We have one more year of fieldwork before we conduct the final analysis.

ELIZABETH. E. ELLIOT, Waikato University



▣ Royal Spoonbills, Hawksbury Lagoon. This banded bird is 20-years-old. Photo by Lei Zhu & Yue Cui.

Oldest Royal Spoonbills in New Zealand

Confirmed records of the oldest Royal Spoonbills in New Zealand have come from recent resightings of birds that were banded with unique colour band combinations as nestlings between 1990 and 2005. On 14th September 2017, Brian Gill saw a colour-banded Royal Spoonbill among 17 at Western Springs, Auckland. The bird was banded as a chick by Bill Cash at the Wairau colony on 24th January 1995 so it is now 22-years-and-nine-months-old, setting a longevity record for the species in New Zealand. This bird has a well-documented history; it has been resighted at least seven times during its lifetime. First, at Parengarenga in June 1997; at Manakau in October 1997 and again in October 1998; near Mangere in March 2006; and at Parengarenga again by May 2006. Movement from breeding sites in the south to northern wintering sites and back again is typical of Royal Spoonbills in New Zealand (Schweigman et al. *Notornis* 61:177 (2014)).

Two other birds are not far behind. Both were banded as chicks by Bill Cash on 24/1/95 at Wairau Lagoon and have also been seen again recently. One was spotted by Bill at Wairau Bar in October 2016, making it 21-years-and-nine-months-old. This bird had previously been seen in December 1995 at Waikanae Estuary, in March and April 1996 at Farewell Spit, and by June 1996 at Unahi, Far North. The other bird was seen by Willie Cook at Motueka Sandspit in February 2017 (22-years-old). This bird had also been seen by Willie over several summers around the Waimea Estuary. Another banded Royal Spoonbill has reached 20-years-old. It was photographed at Hawksbury Lagoon, Waikouaiti, by Lei Zhu and Yue Cui in March 2017. Peter Schweigman banded this bird on Green Island, Otago, in February 1997. It was spotted at Brighton when two-years-old, and at Hawksbury Lagoon when nine-years-old.

To date for our study, there have been 47 resightings of birds older than eight years; ten of the birds are older than 15-years-old. Currently, the longevity record for any spoonbill species is for an Eurasian Spoonbill at 28-years-and-three-months-old (Cramp, S. 1994. *The birds of the Western Palearctic*. Oxford). The oldest Royal Spoonbill we could possibly resight in 2017 would be 27-years-old, if banded in 1990. The foresight of folk who banded chicks in the 1990s has given us a unique opportunity to determine the longevity of Royal Spoonbills. It is the only study of this type in Australasia, so please keep looking for banded Royal Spoonbills as we are nearing our last chance to document the oldest spoonbill in the world. A careful record and especially a good quality photo, which may be clear enough to read the number on the metal band to definitively identify the bird, should be submitted to the Banding Office and to Mary Thompson: maryt@actrix.co.nz

MARY THOMPSON



Fig. 1: Map showing D'Urville Island in relation to central New Zealand, the approximate boundaries of the three ecological districts that converge there and the location of Whangarua.



Fig. 2: Whangarua, viewed from the south-east. It is bounded on each side by spurs that run to the shore of the East Arm of Port Hardy, D'Urville Island (red line), and by the coastline itself.

Retrospective citizen science: changes in bird status on D'Urville Island (1972–2016) from collected observations

Article by Geoff Walls

D'Urville Island lies at or near the geographic centre of the New Zealand archipelago (Fig. 1) (latitude 40°49.5'S, longitude 173°52.2'E). The island is approximately 30 km long, 10 km wide and 16,000 ha in area, and three ecological districts converge at the north-eastern corner (McEwen 1987). Rugged, convoluted and geologically complex, with a robust maritime climate and still approximately half bush-clad, it offers a broad spectrum of habitats and resources for native birds, reptiles and invertebrates. About a third of the island, including most of the extensive central native forest tract, is in Crown ownership, with Scenic Reserve status. Possums, feral Goats and Ship Rats are absent; the main threats to native fauna now are intense competition for resources from exotic wasps (*Vespula species*), habitat degradation by Red Deer, Fallow Deer and feral Pigs, and predation by Stoats, Pacific Rats (*Kiore*), feral Cats, and Hedgehogs.

Despite being flanked by small island sanctuaries (Takapourewa/Stephens Island, Trio Islands and Rangitoto Islands all carry wild populations of Tuatara and other endemic threatened fauna and flora; Cree 2014), D'Urville Island has scarcely been investigated by New Zealand biologists or naturalists. Only recently was it discovered that the island is the best remaining refuge for the highly endangered South Island Long-tailed Bat (Lloyd 2013). The only comprehensive survey of the bird life was conducted in summer 1978–79 (Buckingham & Elliott 1979).

Before people arrived and settled on the island (about 700 years ago), the avifauna included Kakapo, at least two moa species (Little Bush Moa, South Island Giant Moa), at least three penguin species, New Zealand Owllet-nightjar, Bush/Rock Wren, Mohua, South Island Kokako, South Island Saddleback, South Island Piopio and New Zealand Raven (Miskelly, C.M. (ed.) *New Zealand Birds Online* 2013; Worthy & Holdaway 2002; Tennyson & Scofield 2006). There were also major breeding colonies of petrels, shearwaters and Australasian Gannets. When the first European explorers and naturalists arrived, several of these species had become extinct on the island, including the moa and the large penguin species (Waitaha Penguin, *Megadyptes waitaha*; Collins et al. 2014). The seabird colonies had been decimated, but there was still abundant native bird life (Beaglehole 1962, 1968; Wright 1950). Evidence of these birds still remains, including moa gizzard stones, skeletal material in sand dune deflations, and a major guano deposit.

Aware of the history of progressive loss of the avian assemblage on D'Urville Island, I went through the informal records of bird observations in the hut log books from a block of land in the northern part of the island, owned by my family since 1970. The purpose was to find out whether or not those records were sufficient to identify modern population trends and significant recent changes, and if so, to give insight into the main influencing factors.

The land, which we call Whangarua, is a 37-ha area formally protected since 1988 as an Open Space Covenant (OSC) with QEII National Trust (Fig. 2). It is coastal, rugged, ecologically diverse and steadily recovering from the forest clearance, fires and animal impacts of the pastoral farming era. The hut log books document informal bird observations for the period from 1972 to the present, both at Whangarua and on the island as a whole. Most years, several visits have been made, spanning all seasons. Mostly the records are of birds seen or heard, often but not always accompanied by counts or estimated numbers and notes on the birds' behaviour. The family members responsible for the records are skilled observers accustomed to documenting natural events and phenomena. I do not doubt the accuracy of the records, informal though they are.

For the bird data recorded in the log books, I grouped the collective observations into successive decades and assigned a semi-quantitative index of relative abundance to each bird species detected. The categories used were as follows: abundant (A), common (C), occasional (O), rare (R), not detected (-). They are based on a potential maximum (as in a fauna sanctuary in prime ecological health) and a minimum/zero (as in an ecologically degraded site with no conservation management). This data is presented in Table 1 and Fig. 3 and shows the changes in relative abundance of the birds in and around Whangarua since 1972. Number ranges or percentages of birds detected were not assigned because the numerical information available was not comprehensive enough or standardised. The method was chosen to suit the available information, and for simplicity and broad applicability rather than sophistication. It relies on broad experience and knowledge of ecosystems, conservation management and bird observations, rather than precise data.

As the native forest has regenerated at Whangarua following fencing in 1970 from domestic stock, indigenous bird numbers have increased over time and there have been changes in species

proportions. For instance, Bellbird was initially an occasional visitor, far fewer in number than Tui, but has lately become abundant and is now dominant (Table 1, Fig. 3d). Silvereye has also become abundant recently (Table 1, Fig. 3d).

However, we have witnessed the loss of resident populations of several species from Whangarua: South Island Robin, New Zealand Tomtit, Rifleman, Kaka and Yellow-crowned Parakeet (Kakariki) (Table 1, Fig. 3d). Little Spotted Kiwi was present until just prior to our acquisition of the property, according to the previous owner. After being absent for approximately 20 years, New Zealand Falcon is now back. Weka, Morepork and Kereru have persisted throughout. Around the coast, White-fronted Tern has become rare, but Reef Heron and Little Penguin remain more or less as they were (Table 1, Fig. 3a, b).

A number of factors are likely to have contributed to these changes, including: the state of vegetation, habitat and substrate (e.g. food supply, nesting sites, regeneration, succession, browsing, ground disturbance, weed invasion, erosion, tectonics, volcanism); land-use and environmental change (e.g. burning, herbicide use, climate change); predation (introduced mammals and wasps); inter-specific competition; and human impacts. Significant ecological events recorded in the hut log books are listed in Table 2.

The beech masts, with their accompanying rodent irruptions and consequent Stoat irruptions, appear to have done much of the damage to the native birds. The 1979 and 1982 masts, which were extreme, coincide with the disappearance from the island of Little Spotted Kiwi, Kaka and Kakariki, the decline of Brown Creeper and White-fronted Tern and the decimation of the Whangarua populations of South Island Robin and New Zealand Tomtit.

The fate of Rifleman at Whangarua is more puzzling; that this species came through the big mast events is somewhat surprising. It is certain to have been badly affected by exotic wasps, which have frequently been in plague proportions in the last three decades. The wasps are serious competitors for honeydew (which Riflemen were observed feeding on) and nectar; also, the invertebrates that Rifleman mainly relies on.

The decline of Shining Cuckoo could be either related to nest predation on the island, or the impacts of exotic wasps. The typical host, Riroriro (Grey Warbler) is still common. Perhaps ecological changes in the tropical islands where Shining Cuckoo overwinters are of significance. The almost complete lack of Long-tailed Cuckoo detected at Whangarua, and elsewhere on the island of late, very likely reflects the near-demise of its traditional host, Brown Creeper (Pipipi).

The re-establishment of Bellbird as resident at Whangarua, and its subsequent rise to abundance there, is probably a direct result of the natural regeneration of the native forest providing diverse habitat rich in resources for such versatile birds. The recent proliferation of Silvereye could be also due to native forest regeneration. Weka is likely to have benefitted too; its population is now very strong.

The recovery of the New Zealand Falcon population on the island is difficult to explain from observations. It may reflect a general regional recovery through reduced use of toxins and a shift in attitude to protection rather than persecution. At Whangarua it could also be partly due to restored habitat. The re-appearance of Fernbird coincides with other such sightings in the Marlborough Sounds and probably indicates dispersal from recovering populations in the region (Ralph Powlesland, pers. com).

In summary, our informal observations of the birds and ecological events over several decades on a small but representative part of D'Urville Island provide considerable insight. They show major changes in the native avifauna, and record the events that are the most likely causes.

The sudden losses of forest birds are most likely to be due to the massive surges of predation (by Stoats, Cats, Kiore, House Mouse) resulting from beech mast events, especially when a major mast is followed by another before the bird populations have time to recover. The impact of exotic wasp competition is not so clear and direct, but it must also be a major contributing factor. The more gradual declines may be due to the bird species being less vulnerable to predation and less reliant on the food resources that

are heavily competed for by exotic wasps. The recoveries of forest birds we have noted at Whangarua are probably the result of restored native forest habitat.

From visiting island sanctuaries such as Hauturu (Little Barrier) and Kapiti Island, from reading historic accounts of the bird life, and from finding tangible evidence of birds long gone, it is clear that the native birds on D'Urville Island have been declining for much longer than the last 45 years. The populations we encountered in the early 1970s were already much depleted. The Kaka population, for example, may by then have lost most of its breeding females, as they are particularly vulnerable to predation when nesting. So, we have borne witness to what has amounted to the last straw for Kaka, Kakariki and Little Spotted Kiwi on the island, and for South Island Robin, Rifleman and New Zealand Tomtit at Whangarua.

This study is an example of citizen science using existing information to identify the likely causes of local bird population changes. Its findings are sufficient to give clear guidance to conservation management that is now underway, both at Whangarua and on the island as a whole.

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Acknowledgements: Discussions with ornithological friends and colleagues provided the motivation to extract and analyse the bird-related information recorded in family log books from Whangarua, D'Urville Island. Foremost with encouragement were Nigel Prickett (Auckland) and Peter Gaze (Nelson). Others who contributed useful ideas were Tom Stein (QEII National Trust, Nelson-Marlborough), Kate Whyte and Christina Troup (Banks Peninsula), Frances Schmechel, Sarah Richardson and Colin O'Donnell (Christchurch) and Philip Simpson (Golden Bay). This initiative has only been possible because of the members of my family who made the observations in the field and kept such good records: particularly Jack and Hazel Walls, Kath and Nigel Prickett, Angela Walls, Simon Walls, Kathy Hindmarsh, Rowan Hindmarsh-Walls, Manu Greer, Sue Scheele and Finn Scheele.

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▲ Fig. 3: Changes in relative abundance of birds at Whangarua, D'Urville Island, 1970s-2010s, by main habitat/lifestyle type.

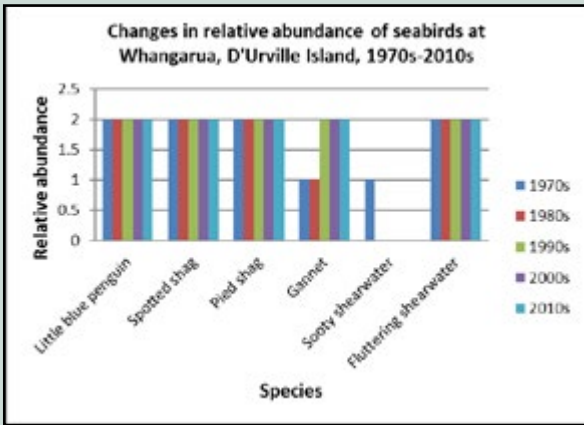


Fig. 3a:

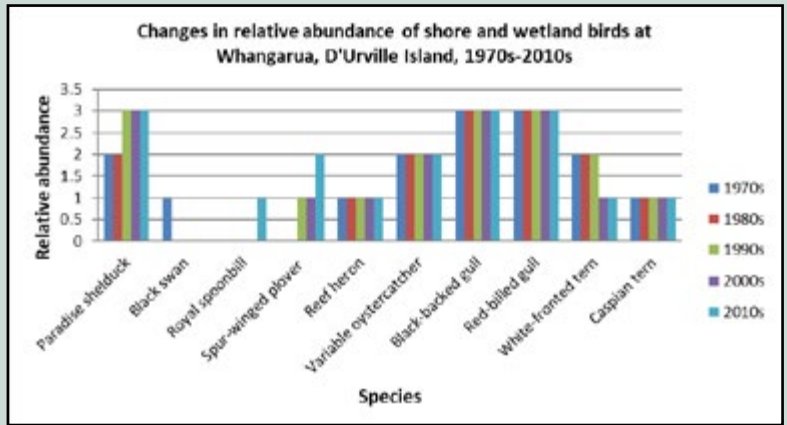


Fig. 3b:

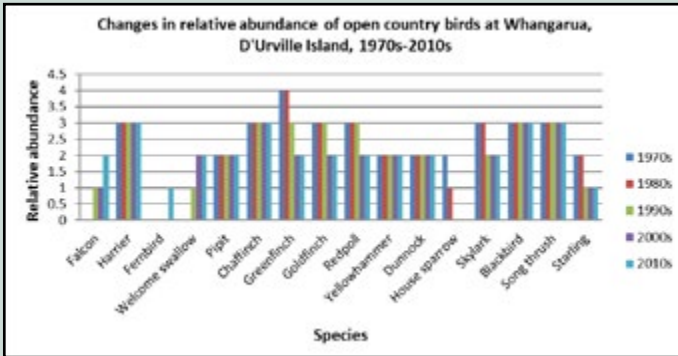


Fig. 3c:

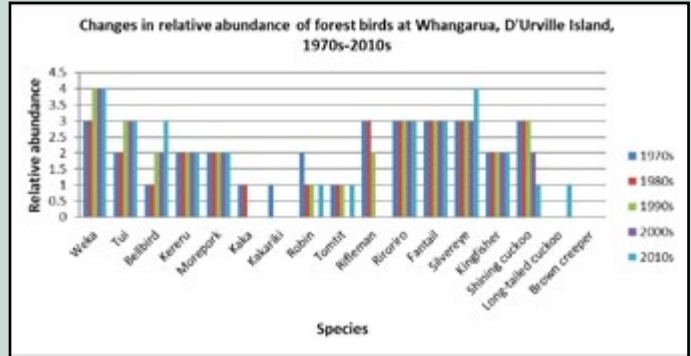


Fig. 3d:

Table 1. Relative abundance of birds at and near Whangarua, D'Urville Island, 1972 – 2016. A = Abundant, C = Common, O = Occasional, R = Rare, - = Not detected.

Species	Relative abundance				
	1970s	1980s	1990s	2000s	2010s
Weka	C	C	A	A	A
Tui	O	O	C	C	C
Bellbird	R	R	O	O	C
Kereu	O	O	O	O	O
Morepork	O	O	O	O	O
NZ Falcon	-	-	R	R	O
Aus. Harrier	C	C	C	C	C
Kaka	R	R	-	-	?
Kakariki	R	-	-	-	-
South Island Robin	O	R	R	-	R
NZ Tomtit	R	R	R	-	R
Rifleman	C	C	O	-	-
Riroriro	C	C	C	C	C
NZ Fantail	C	C	C	C	C
Silvereye	C	C	C	C	A
Sacred Kingfisher	O	O	O	O	O
Shining Cuckoo	C	C	C	O	R
Long-tailed Cuckoo	-	-	-	-	R
Ferrarbird	-	-	-	-	R
Welcome Swallow	-	-	R	O	O
NZ Pipit	O	O	O	O	O
Brown Creeper	-	-	-	-	-
Paradise Shelduck	O	O	C	C	C
Black Swan	R	-	-	-	-
Royal Spoonbill	-	-	-	-	R
Spur-winged plover	-	-	R	R	O
Little Penguin	O	O	O	O	O
Reef Heron	R	R	R	R	R
Variable Oystercatcher	O	O	O	O	O
Spotted Shag	O	O	O	O	O
Pied Shag	O	O	O	O	O
Black-backed Gull	C	C	C	C	C
Red-billed Gull	C	C	C	C	C
White-fronted Tern	O	O	O	R	R
Caspian Tern	R	R	R	R	R
Aus. Gannet	R	R	O	O	O
Sooty Shearwater	R	-	-	-	-
Flattering Shearwater	O	O	O	O	O
Chaffinch	C	C	C	C	C
Greenfinch	A	A	C	O	O
Goldfinch	C	C	C	O	O
Redpoll	C	C	C	O	O
Yellowhammer	O	O	O	O	O
Dunnoek	O	O	O	O	O
House Sparrow	O	R	-	-	-
Skylark	C	C	O	O	O
Blackbird	C	C	C	C	C
Song thrush	C	C	C	C	C
Common Starling	O	O	R	R	R

Table 2. Timing of ecological events observed on D'Urville Island which may have impacted the avifauna assemblage.

Event	Year
Beech masts (very heavy autumn seed falls)	1979, 1982, 1999, 2009, 2014
Irruptions of rodents (Kiore and House Mouse)	1975, 1979, 1982, 1986, 1989, 1990, 1995, 1999, 2002, 2005, 2006, 2008, 2009, 2013, 2014.
Exotic wasp plagues (<i>Vespula</i> spp. numerous and aggressive, late summer-autumn)	1982, 1986, 1989, 1992, 1994, 1995, 2001, 2002, 2003, 2005, 2008, 2011, 2012, 2013, 2014, 2016.

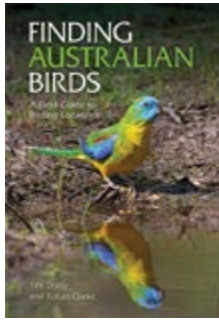
Genetics of Chatham Island Taiko

The critically endangered Chatham Island Taiko has a population size of ~ 25 known breeding pairs. This project will investigate the genetics of Taiko by utilising a set of blood samples which have been taken from almost every bird banded since 1996. Using 'Next Generation Sequencing' I will develop genetic markers specific to Taiko to determine relatedness between individuals and assess genetic variation. Detailed knowledge of Taiko genetics will provide managers with a deeper understanding of population dynamics, allowing management decisions to be better informed. New, unknown Taiko continue to be caught and it is therefore assumed that breeding burrows remain to be discovered, with significant effort being expended to locate them each season. Knowing if these birds originate from yet unknown burrows or if, alternatively, they are offspring of known burrows that were fledged prior to burrow discovery, will allow for optimal resource allocation. Taiko chicks have been translocated to the predator-free fenced area at Sweetwater since 2006. This safe population is now rapidly increasing, which means future translocations need to be targeted at "genetically valuable" chicks to give the species the best chance at maintaining variation into the future, and to reduce any founder effects in the area. Some breeding pairs have failed to produce offspring over many years, indicating they are likely to be closely related. Knowledge of the relatedness of individuals will help managers decide whether or not to intervene and to plan attempts to introduce birds in the hope that they will pair. Generous support from the Birds New Zealand Research Fund will assist with the costs involved in developing and testing genetic markers, and genotyping the circa 160 samples that will be analysed.

JACQUI TIZARD, University of Auckland

Reviews

Finding Australian Birds CSIRO Publishing; RRP AU\$ 49.95



This excellent birdwatching site guide by Tim Dolby and Rohan Clarke will save you time if you are planning an Australian birdwatching trip, and is sure to help you find more of your target species.

It kicks-off with a highly informative introductory section that is packed with useful information, including essential Australian birding tips, regional overviews, notes on seasonal variations and climatic conditions, and a swag of handy travel and safety tips.

The coverage is comprehensive, with chapters on all of the States and Territories, and the main offshore islands and pelagic trips, and an annotated bird list that name-checks the best sites for each of Australia's 900+ bird species (including 140 vagrants). So, if you want to see any of the harder-to-find species, such as Regent Honeyeater, Blue-faced Parrotfinch or Sooty Albatross, you could save time by first consulting this list. Significant subspecies are also included, along with brief notes on local marsupials, marine mammals, and some important food plants for birds.

Each chapter summarises the main birding sites and birds in that State or Territory, and includes brief notes on local facilities and accommodation. There are 52 colour maps and 340 high-quality colour photographs of birds, sites, habitats and landscapes. These are valuable for visiting birders, especially those wanting to familiarise themselves with local habitats at the more than 400 sites described in the book. For those looking for more trip planning guidance, suggested itineraries are set out at the start of each chapter.

As with any book, it can only include information available at the time of publication. So, if you are planning an Australian birdwatching trip, once you have read about the sites that you plan to visit, you could also refer to *eBird* to fine-tune your planning by looking up more recent sightings and – in the case of migrants – sightings from previous years at the same time of year that you will be there.

The text is accessible to the non-resident birder, perhaps in part because co-author Tim Dolby is a birdwatching guide. Reading the entries for some of the sites that I'm more familiar with, I found the text for the Hobart area in Tasmania, the Capertee Valley in NSW, and the north-east Victorian mallee country to be excellent. If anything, the suggested itineraries for these areas err slightly on the generous side.

Usefully summarising a continent's worth of birdwatching sites is inevitably going to impact on the size (21.5 cm x 15 cm), weight (1,156g) and length (606 pages) of such a book, but you wouldn't want to plan an Australian birding trip without consulting this one. The CSIRO website has more details:

<http://www.publish.csiro.au/book/6518/>

Ghosts of Gondwana Potton & Burton; RRP \$59.99

George Gibbs' classic 2006 book *Ghosts of Gondwana: the history of life in New Zealand* has been issued in a fully revised hardback edition with four new chapters, and more photographs and illustrations. It incorporates results from research published during the intervening decade, drawing on new information about kiwi, the ancient 'jaw-moths', and terrestrial molluscs. The new edition retains a strong emphasis on birds, explaining why Kakapo is the only flightless parrot species in the world and why kiwi evolved only in New Zealand, and is essential reading for anyone interested in the evolutionary history of life in New Zealand.

Vanished and Vanishing Parrots CSIRO Publishing; RRP AU\$ 150



This handsome hardcover A4 reference book presents the latest information on the world's parrot species in danger of extinction, and those driven to extinction in historical times.

Written by world parrot authority and retired head of the Wildlife Section of the Australian National Parks and Wildlife Service, Joseph M. Forshaw, it contains 58 vivid colour plates by wildlife artist Frank Knight, showcasing dozens of spectacular parrot species.

The excellent introductory section begins with region-by-region descriptions of the threats facing the world's parrot species, such as the live bird trade and climate change, and a description of the conservation recovery programmes being implemented to safeguard their future. This is followed by a fascinating 12-page fossil history of parrots contributed by Walter Boles.

The main body of the book comprises 78 detailed species accounts, along the lines of those in HANZAB. There is a strong focus on Australasian and Pacific parrot species, with half of the pages (134) of the main body of text featuring Australasian parrots; the other half covers the parrots of Africa, Asia and the Americas.

The Australasian section starts with *Strigopidea* or New Zealand parrots, allocating 17 pages to them, including colour plates of Kakapo, Kaka and Norfolk Kaka. This wide-ranging section begins with a description of this endemic superfamily as the basal clade with a sister relationship to all other parrots. In other words, the oldest living lineage among the world's 402 recognised parrot species. There is only one paragraph on Kea, which seems like an omission, given this species' inclusion as Vulnerable on the IUCN 'Red List'.

The *Cyanoramphus* parakeets are covered over 16 pages, including plates of Red-fronted (Norfolk Island, Lord Howe and Macquarie subspecies), Orange-fronted and Black-fronted parakeets. The lorikeets of the tropical Pacific are covered over 12 pages, including plates of Ultramarine, Blue and Rimatara lorikeets.

The *Eunymphicus* parakeets of New Caledonia, which are closely related to *Cyanoramphus* parakeets, are covered over five pages, including a plate of Horned Parakeet and Ouvea Parakeet. The rest of this section covers Australia's threatened parrot species, including plates of Swift, Paradise, Golden-shouldered, Orange-bellied, Coxen's Fig, Ground and Night parrots, and three Black Cockatoo species.

The author has done an impressive job of drawing this information together from a wide range of sources (including *Notornis*) and putting it into a standardised format. The Orange-fronted Parakeet text is the most up-to-date of the New Zealand species accounts, including multiple references to studies from 2013-2016.

Interesting observations are reported on the Norfolk Island *Cyanoramphus* parakeet being threatened by competition from the more aggressive Crimson Rosella, which was introduced to the island from continental Australia. It would have been interesting to include more on the impacts of introduced Australian parrot species in New Zealand, which may compete with endemic and native parrot species for food and nesting sites, and – in the case of North Island introduced rosella populations – have been found to carry Beak and Feather Disease Virus (BFDV), which could harm native parrots.

There is a great deal to recommend this outstanding 328-page reference book to students of ornithology, conservation managers, and libraries, as well as those among us who are fascinated by the world's parrots and their future fate. The CSIRO website has more details: <http://www.publish.csiro.au/book/6517/>

MICHAEL SZABO

FAR NORTH

At our October meeting, Heather showed us photographs from her trip to the Galapagos Islands. David Lawrie will soon visit us with his Australasian conference presentation, and we're looking forward to getting his feedback on preparations for the 2018 Conference. A significant recent event was our annual Science Fair Presentation for the best science fair bird topic. 2017 was the 4th in a row that we have presented the award, and this time it went to Isaac Chandler, who won the prize for "Automated Kiwi Call Recording".

Scott Brooks organised a pelagic trip from Tutukaka in September. A dozen of us had a great time, especially seeing up to 14 NZ Storm Petrels following the boat. Also seen were Gibson's and Wandering Albatross, White-capped and Campbell Mollymawk, Northern Giant Petrel, Grey-faced and Cook's Petrel, Buller's, Little and Sooty Shearwater, and Fairy Prion. Results were posted on eBird.

Mike Knight and I went to Walker Island in Rangaunu Harbour on 20/10 and 13/11. The big difference between the 2 trips was that 561 Ruddy Turnstone showed up for the second count. There were 2,800 Bar-tailed Godwit, 560 Red Knot, and nesting Southern Black-backed Gull, Caspian Tern, White-fronted Tern and Red-billed Gull. Rarities included 7 Whimbrel, 2 Terek Sandpiper, 2 Little Tern, and a possible Black-tailed Godwit.

Three of us surveyed Houhora (Kowhai Beach) where godwit numbers were way down. Some of us helped Gwen Pulham with the Mangawhai wader count where we photographed a Red-billed Gull eating New Zealand Dotterel eggs. Five dotterels attacked the gull, but it just went on eating. Two of us also helped Gwen on the Big Sand Island survey. Rarities there included 7 Little Tern, a NZ Fairy Tern, and a Whimbrel. We've scheduled 2 surveys at Parengarenga so far, but both were cancelled due to the weather, so now we're running out of time to do it. It's 3 hours north of here, and needs a boat and good weather. And the guys said it needs a drone, so I bought one. Now they say I need to practise a lot, or I'll lose the drone. - LES FEASEY

NORTHLAND

Our Northland Branch Young Birder reports: "On Labour Weekend, I was lucky enough to attend the Youth Camp at Miranda Shorebird Centre. It's awesome spending time with kids my age that have the same love for birds that I do. Our mentors are filled with decades of experience; the passion and drive they had for bird-banding was inspiring. The number of things I learnt in that short time was exceptional: handling birds correctly, mist-netting, flag-reading and, of course, bird-banding! For many of us, this was our first glimpse of the astonishing world of bird-banding."

Four members joined Bream Head Conservation Trust's spring 5MBCs on the Te Whara/Peach Cove lines (28/10). Team Leader Mike Butcher reports: "no Bellbirds; no Long-Tailed Cuckoos heard (one heard in a previous year); Shining Cuckoos reasonably common (6 heard); California Quail and Ring-Necked Pheasant seem to have infiltrated further into the reserve; Kaka are widespread, as a breeding population on Bream Head (18); Whiteheads seen in a couple of areas (4) but not close enough to get banding records. Whitehead are found to be in the bush edge and bush

clearings. The other notable native species seen/heard: 10 NZ Tomtit; 4 North Island Robin; 6 Kereru; 1 NZ Pipit. Also dispersed throughout the area, Tui, Grey Warblers, Silvereyes and NZ Fantails."

Smugglers Bay trap lines were recorded by the BHCT team (26/10). Of note were Shining Cuckoos (11) Grey Warblers (38), NZ Tomtit (1), Kaka (4) and NZ Pipit (2).

The often-heard Spotless Crake was seen by local member Hilton Ward in his Ngunguru wetland (9/9) and 4 NZ Dabchick were seen on Wilson's Dam/Ruakaka in September. Hilton reports from the Taurawhata Grey-faced Petrel colony near Matapouri: "With chicks in the burrows, trapping and baiting continues in earnest. A night visit shows little activity as the birds are mostly away feeding and only returning briefly to feed the chicks. There is very little calling now compared to when the nests were being established. On a night visit while sitting with a thermal scope Dayna and I were surprised when one petrel called from the undergrowth only a metre from us. Lucky to get a photo. 2 burrows are monitored with cameras. These show the maximum stay for a parent to be about an hour but some are only 10 to 15 minutes. Occasionally, the chicks are fed on consecutive days or even twice in 1 day, but usually the burrows are visited only once in 3-6 days. - ANNE MCCRACKEN

AUCKLAND

The Hauraki Gulf Marine Park Seminar at Auckland Museum (6/9) was the star event for us to put on a display featuring the work of the Society, benefits of membership such as research activities, library services and the Beach Patrol Scheme, and a NZ Fairy Tern breeding cycle video kindly provided by Susan Steedman. Around 250 people attended and, while many familiar faces and some new ones came over to say hello, we also met some local Birds New Zealand members for the first time. A real highlight was Biz Bell receiving the 2017 Holdaway Award for her research on Black Petrels at Great Barrier Island. Thanks to Gwenda Pulham, Chris Gaskin and Mel Galbraith for their kind assistance organising the display. We look forward to taking part in similar events in future.

Wet weather forced us to cancel our Ambury Farm Park day (8/10), but most of the annual spring surveys went ahead. Highlights of the Shakespeare Regional Park survey included 4 North Island Robin, 6 Whitehead, 22 Kereru, 1 Spotless Crake, 1 Bellbird, 195 Tui, and 312 Pukeko. The Motutapu Island survey (7-8/10) was hit by bad weather, so only half the planned survey went ahead. Highlights included 2 Reef Heron, 14 Shore Plover, 27 Kereru, 57 Red-crowned Kakariki, 8 Shining Cuckoo, 3 NZ Pipit, 52 North Island Saddleback, and an amazing 51 Brown Teal.

Muriwai beach patrols provided evidence of a 'mini-wreck' of 36 Common Diving Petrels in September, with similar numbers found on other west coast beaches. Some of these birds went to Auckland Museum Land Vertebrates Curator Matt Raynor, who said they died of starvation. A well-attended beach patrol on Pakiri Beach (15/10) attracted a record 14 members and friends. Species recorded included 1 Little Shearwater, 8 Fluttering Shearwater, 1 Buller's Shearwater, 7 Common Diving Petrel, 4 Fairy Prion, 1 Thin-Billed Prion, 1 White-Faced Storm Petrel, 1 Australasian Gannet, 1 Little Penguin, 1 Aus.

Magpie and (unusually) 1 Tui. The live bird count recorded 1 NZ Fairy Tern, 68 Northern NZ Dotterel, and 83 Variable Oystercatcher.

Other interesting sightings included a Laughing Kookaburra in suburban Massey seen by Phil Hammond (18/10), a live Northern Giant Petrel on Muriwai Beach seen by 'Zarkov' (4/10), and numerous Banded Rail photographed by camera traps next to Rutherford High School, Te Atatu Peninsula. A most unusual record was of a cat-killed male NZ Tomtit found in a suburban Onehunga garden (3/10). The nearest population is in the Waitakere Ranges, so this bird must have skirted the forested cliffs of the Manukau Harbour, and gone through Green Bay, Waikowhai and Hillsborough, before its unfortunate demise. - IAN MCLEAN

SOUTH AUCKLAND

Wet weather forced us to cancel a field trip to Aka Aka wetland on the Waikato River for a second time, but we did make it to the Tuakau sewage ponds on 5/8. A highlight was a male NZ Scaup and good numbers of NZ Dabchick (49) and Australasian Shoveler (64). A small group also visited Puhinui (24/9) where we found 2 Fernbird territories and 3 NZ Scaup.

There have been a few rare birds around, some very good. Tony Habraken saw a Brown Booby off Whakatiwai on 23/7, but probably the best was a lovely male Northern Shoveler found by Janie Vaughan on 7/8. A Whiskered Tern appeared at Mangere on 5-7/10. We welcomed the return of the godwits with a trickle of birds at the start of September, quickly becoming a flood with lots of bands and flags to find.

On Labour Weekend we ran a Youth Camp for young birders at Miranda to teach the basics of mist-netting and bird-banding, pulling in people from as far away as Whangarei and Christchurch. We relied heavily on the experience of Adrian Riegen and it was a trust well placed as we caught a wide range of mainly passerines in the orchard. The Silvereyes we netted made sure that they all got plenty of practice. One night we tried for waders and caught several godwits, knots, Wrybills, and a Pied Stilt. It was a good start, showing banding as a part of an information gathering process with lessons on measuring birds, recording moult, sex and age, and then going out to find the marked waders on the roost. A bonus NZ Shore Plover was found by young birder George Hobson, which was seen by all. The young birders were all keen and we all had a great weekend. The trick will now be finding ways to build this experience into useful qualifications that will lead to more field work in the future. - IAN SOUTHEY

WAIKATO

In August, Ray Buckmaster gave an interesting talk about bird identification. In September, Murray Davies gave a talk about Koromatua Lake, a peat lake that supports small numbers of crakes and rails, and then led a field trip there. In October, Geoff and Raewynn Foreman gave a talk about their trip to the Kermadec Islands and the birds they saw. In September, some Waikato members attended the Hauraki Gulf Marine Park Seminar at Auckland Museum, particularly because a large part of the Hauraki Gulf falls under the jurisdiction of the Waikato Regional Council, and to learn more about the 5 endemic seabird species that reside in the area.

Sightings included Shining Cuckoo at Taitua Arboretum (10/9), Rooks in Hamilton, Cambridge and Tamahere, and Royal Spoonbills at Pauanui/Tairua, Whangamata and Hamilton Lake. In September there were Cattle Egrets and Carolina Wood Ducks at Lake Ngaroto, Kaka at Waikato University, and a Cirl Bunting near Cambridge. Beach patrols were relatively quiet, but a number of diving petrel wrecks were found on the West Coast at Raglan, Kawhia and Aotea Harbours. Other interesting finds were of Blue Petrel, Thin-billed Prion, White-headed Petrel and Southern Cape Petrel. From Karioi Maunga came news of at least 5 Grey-faced Petrel chicks in burrows. These are the first recorded breeding attempts in many years, no doubt due to predator control there: www.karioimaunga.co.nz

The first NZ Dotterel chicks hatched at Simpson's Beach on 14/10. There are already 20 NZ Dotterel chicks around the Coromandel this season, and 3 VOC chicks at Ohui. Unfortunately, Whangamata lost eggs and nests because of dogs and people running through the fenced areas, an ongoing problem on the whole of the Coromandel Peninsula in summer.
- KEN WEDGEWOOD

HAWKE'S BAY

There was a good turnout of 12 people for a field trip to the Waitangi Wetlands and Ngaruroro River Estuary in August. A number of Black-fronted and Banded dotterels were found in the river mouth area. The highlight was seeing Australasian Bittern in the open, on the edge of the Horseshoe wetland adjacent to the railway line.

We are grateful to Nikki McArthur who came from Wellington to run a workshop on the eBird system for recording bird sightings; hopefully this will lead to more data for local birding sites. Members also attended a Predator-Free 2050 event (6/9) hosted by DOC and addressed by the Conservation Minister, who advised that predator control activities in the Ahuriri Estuary would be co-ordinated and supported by DOC, including the provision of traps.

A visit to the Tukituki River Estuary in September attended by 8 people, including a couple of visitors from South Island, found that once again there was evidence of New Zealand Dotterel breeding on the shingle area north of the river mouth. This area now has greater protections, so will hopefully be less subject to disturbance.

Introduced Spotted Doves have historically not occurred in Hawke's Bay, but over the past 3 years a single bird has been sighted occasionally south of Hastings. In October, for the first time, 2 birds were seen together. One of them was displaying while calling, so perhaps we can expect a local population, in addition to birds from further north. - IAN SMITH

TARANAKI

Taranaki had a wet winter and early spring, so most field trips were cancelled. The item of main interest to us was an email circulated by Peter Frost, regarding informally combining with similar groups such as Forest and Bird etc for field trips or indoor meetings when a speaker was invited, as most of these groups also struggle with declining membership. We think that it will be easy enough to add a few extra email addresses when notifying our group regarding field trips.

Beach patrols over the period had a nil result.

Those members who did manage to get outside had the usual birds in their gardens as spring arrived and the Kowhai flowered. Tui were busy checking them out and trying to defend them from all other birds. The Mohakatino Australasian Bittern has been seen on two occasions and the Cockerams have twice seen one at Nowell's Lakes in South Taranaki. A flooded paddock at Waiongana held 83 Pied Stilt for a few days, along with a variety of waterfowl.

Tony Green has been chasing Hihi and North Island Robin around Lake Rotokare and managed a brief glimpse of a newly released North Island Robin in Egmont/Taranaki National Park. Kay Rodbard was back from her annual pilgrimage to England where she saw among other species Great White Egret, Red Kite and Barn Owl. Emily Roberts continues to survey shorebirds around the Taranaki coast, particularly NZ Dotterel. I am unsure if there have been any successful nesting attempts. Ron Lambert was back from a visit to Western China, but saw few birds due mainly to the arid landscape, but he did see a White Egret. The first official Shining Cuckoo calling was heard by Julie in our garden at Waiongana.
- PETER FRYER

WHANGANUI

The start of the breeding season seems to have been delayed for most species, presumably by the wet early spring. Hihi at Bushy Park have only just started laying eggs, about a month later than in 2013, and 1-2 weeks later than in 2015 and 2016. Nesting was similarly delayed in 2014, another year in which total rainfall in late winter-early spring was a third above the long-term average. Not all species have been slow off the mark, however: the first Mallard with ducklings was seen mid-August, and a pair of Australian Magpies began nesting at the same time.

An August field trip to Lake Omana and Manawatu Estuary produced 2 White Herons, 99 Canada Geese, 91 Black Swans, 20 NZ Dabchick, and numbers of various other waterfowl at Lake Omana. Duncan Watson and Dianne Parker found and photographed a Red-necked Stint in breeding plumage at Manawatu Estuary, along with 26 Wrybill, 12 Bar-tailed Godwit, and several other species. On the way to Foxton, we counted 16 Cattle Egret on the same farm on Whangaeu Beach Road that has served as a wintering site for them since the mid-1980s.

Almost every year for the last decade, small numbers of Kaka have been recorded around Whanganui in late winter-early spring. This year has been no exception. Kim Glentworth reported a Kaka visiting her property just outside Whanganui for several days in early September. It was surprisingly tame, coming down to see what the chickens were doing and allowing Kim to photograph it from only a few metres away. For the next 6 weeks, we received reports of 2 Kaka around Virginia Lake, one of which could have been the bird from Westmere. Ormond Torr photographed one of these, which appears to be a young bird. This fits the hypothesis that these late-winter visitors are young birds that are either dispersing from their natal territories elsewhere in search of ones of their own, or have been displaced by their parents in the lead-up to the new breeding season. We don't know from where these birds come: Kapiti Island, Mt Ruapehu and perhaps even the interior of Whanganui National Park, are all

possibilities. Redpoll is another intermittent winter visitor, with 21 being seen in the Whanganui railway yard in mid-September. Smaller numbers were recorded across town around the same time, feeding on small seeds.

Finally, even in suburbia, where most birds are non-native species, intriguing observations of bird behaviour can still be made. Lynne Douglas has a tame Australian Magpie that cannot fly. When this bird is attacked by wild magpies, which come to her garden to feed on scraps, the tame bird picks up a small hearth brush, or another similarly handy object, and threatens the wild birds with it. Is this an example of tool-use? - PETER FROST

WAIRARAPA

At our last Branch meeting, Paul Shortis gave a very interesting talk on his recent trip to the Russian Far East, including Wrangel Island and the Chukotka and Kamchatka coastlines, a distance of 4,200 nautical miles, covered in a month. Highlights included some amazing photos of close encounters with Polar Bears and Walrus, a vast array of whale encounters, and cruising past seabird cliffs with thousands of Guillemots, Red-legged Kittiwakes and Puffins. This is still a frontier region and relatively hard to visit, so he was lucky to be part of a Heritage Expeditions trip to there, aboard *Spirit of Enderby*. Remarkably, only about 300 tourists get to Wrangel Island in the Russian Arctic each year, most with Heritage Expeditions, which is a New Zealand company.

In Masterton, 30-45 Black-billed Gulls have been present in the park over recent weeks, including 5 banded birds observed there in recent days (locally banded birds have orange individually-numbered leg bands). It is hoped they will again choose to nest on the Ruamahanga River above Te Ore Ore, ideally on the in-stream island which had improvements made to it by the regional council to encourage the birds. There are also 2 or 3 NZ Dabchicks present, which may be nesting on the island.

Six of us had an enjoyable walk through Rewanui Reserve. Predominant species (heard only) were Shining Cuckoo, Grey Warbler, Tui, NZ Fantail, Kereru and 2 Bellbirds. Robin was not able to join us as he was off rescuing a Kereru. This year is shaping up to be a successful breeding season as we have 2 NZ Dotterels and at least 4 Banded Dotterels recently hatched and thriving there. Another clutch of 3 NZ Dotterel eggs is due in a few days. Reports of more NZ Dotterels along the coast on both sides of Riversdale are encouraging, especially as they could be birds that bred at Riversdale over the last few years. Remember these birds are classified as "Conservation Dependent", so it is testament to the ongoing efforts being put in by local Birds New Zealand and Forest and Bird members, and Wellington Regional Council, that we are helping this species recover.

Increased predator trapping is underway to help the Caspian Terns successfully breed this year. Breeding has now failed for a few years in a row. The bulk of the work is again being done by Dougal MacKenzie and Colin Shore working with DOC. This species is classified as "Vulnerable" and has been declining since the 1990s. Our colony is the only one recorded in the lower North Island! - JOANNA MCVEAGH & ROBIN LIST

WELLINGTON

Last year, the Wellington Branch ran its first pelagic birdwatching trip in Cook Strait, using a local recreational fishing charter boat. A highly successful trip with a good range of seabirds was seen, and great hospitality provided by Jonathan Delich, skipper of Seafarer II. The trip took 6 hours and a tasty lunch was provided. For the 2016 trip, the avian highlight was the first accepted sighting of a Tasmanian Shy Albatross (*Thalassarche cauta cauta*) in the New Zealand EEZ. Demand for pelagic trips has been sufficient for us to run 2 trips this year (June, August), each with 20 keen birders. Considerable differences have been seen in the number and range of species recorded on these trips. Royal and Wandering/Antipodean albatrosses, and White-capped, Black-browed and Salvin's mollymawks were seen on both 2017 trips. However, Buller's Mollymawks and large numbers of Westland Petrels (~50) present in June were absent in August. Three Cook Strait pelagic trips are planned on 1 April, 1 July and 1 September 2018.

Over the years, the Wellington Branch has collaborated with other organisations in conservation projects. In April, Forest & Bird and Kevin Parker transferred 23 Fernbirds from Lake Rotokare (Taranaki) to Pauahatunui Reserve. The DOC consent required that the Fernbirds be monitored post-transfer and our Wellington members have taken up the challenge of surveying these birds. Even with play-back calls, finding Fernbirds can be challenging, and recording band combinations even more so. Following the transfer, pairs of Fernbirds have set up territories. In late September, a Fernbird was observed carrying food, indicating that it was feeding a nestling/s. Further evidence of successful breeding was observed by a Forest & Bird member with the sighting of a bird with no leg bands. These are encouraging signs for a successful transfer. Another Fernbird transfer there from Lake Rotokare is planned for next year.

– GEOFF DE LISLE

NELSON

Spotting NZ Falcons seems now to be routine among urban members, from Atawhai and The Grampians through to Richmond, and beyond. Paul B witnessed three NZ Falcons in Anniseed Valley working together to cause havoc among his flock of pigeons, in late September. Our earliest Shining Cuckoo was reported at Ruby Bay on 19/9. When I spotted a White Heron in the shallows of Motueka River (21/8) near Kohatu Bridge, I wondered if it had been in the area all winter or was it on its way south?

Willie C spotted a Gull-billed Tern in breeding dress at Waimea Estuary on 14/10 and reported some of the first Bar-tailed Godwits there (4/9). Godwit J4 has been well-tracked for 9 years. Originally banded in Victoria, resighting records initially came from Christchurch in 2009, then J4 moved to Tasman Bay in 2010, and has been spotted seasonally moving to and from the Waimea Estuary to Apeado-Mokpo in South Korea ever since. A pair of NZ Dabchick has again been recorded at Lake Killarney in Takaka.

Robin and Sandy T. report from their research work in Kahurangi National Park: "After 7 years of monitoring the translocated Great Spotted Kiwi in the Flora, we've had a really special experience. We went to do a transmitter harness check on Te Hapu, a sub-adult who was translocated from Goulard

Downs, and were very happy to find him in a burrow with a second sub-adult Kiwi. She was incredibly shiny and healthy looking, and we caught up with them in the Grecian, so we named her Hebe after the Greek goddess of eternal youth. The really exciting thing is that we don't know who she is – almost certainly bred in the Flora, but given how sub-adults can move, she could be the offspring of any of the translocated birds, or possibly unknown adults. This is the first time we've found a sub-adult other than with transmitted parents, so a real celebration day for Friends of Flora's Kiwi reintroduction project." – GAIL D. QUAYLE

CANTERBURY

A variety of migratory waders were reported at Lake Ellesmere in September-October. The highest counts were 2 Curlew Sandpipers, 1 Sharp-tailed Sandpiper, 40+ Red-necked Stints, 3 Pacific Golden Plover, 15 each of Ruddy Turnstone and Red Knot, and at least 170 Bar-tailed Godwits. Other notable birds in the area included a Black Stilt at Embankment Road, a Sanderling at Jarvis Road, and a Spotless Crake at Harts Creek. A possible Northern Shoveler found at Kaituna Lagoon on 16/10 by Matthias Dehling was resighted over the following 2 days.

A Marsh Crake was seen in the middle of the day at Travis Wetlands on 9/9. Just over a week later, 2 Australasian Bitterns were seen there. Sightings of these species at this site are far from common, but frequent enough that both species appear to have established in the area. Further inland, 2 local birders reported seeing Orange-fronted Parakeet and Yellowhead at Hawdon Valley in September.

Two eBird courses run by Nikki McArthur in October were well-attended. Those attending found the courses useful and enjoyable, so hopefully we will see more eBird lists from around the Canterbury region in future!

Canterbury Branch participated in a Conservation Week event at the botanical gardens, with the aim of teaching kids more about our birds. It was a good chance to share information about birds with the public and members. Many thanks to those members who volunteered their time to help out with our stall.

The field trip to Ashburton River mouth in September turned up 2 Black-fronted Dotterels and 3 Banded Dotterel chicks. We also observed Black-billed Gulls by the bridge on State Highway 1. A weekend trip to the West Coast was a chance to meet with some members there. Special thanks to Kerry-Jayne Wilson for her hospitality, and for sharing her knowledge of Westland Petrels and the work of the West Coast Penguin Trust.

– ELEANOR GUNBY

OTAGO

Our winter highlight was the very successful eBird Workshop presented by Nikki McArthur for 30 participants, including members, new birders and DOC staff, from as far away as Wanaka, Queenstown and Oamaru.

The winter wader count was done in windy weather, which may have contributed to lower counts. SIPO numbers held up at about 1,000 but only 183 Bar-tailed Godwits were seen, lower than in the last 3 years. Fourteen people braved fine but frosty weather to help with the Sinclair Wetlands winter count.

We have been very busy during the spring with branch projects. We have been looking for

South Island Robins that have moved outside the fence at Orokonui Ecosanctuary, where a successful breeding population has established them since 2010. This season we have been surveying regenerating forest on Mopanui, adjacent to Orokonui. Up to 5 male robins have been located and in mid-October a pair with a nest was discovered. This nest is being monitored as it would be great to confirm the first successful breeding outside Orokonui.

We have commenced our new long-term monitoring project of the Town Belt, which is a mix of regenerating bush, exotics and weeds that creates a corridor for 5 km through the heart of Dunedin city. The DCC carries out pest and weed control; long-term monitoring of birds to assess outcome is deemed of value by the DCC Biodiversity Officer. We have set up 12 five-minute bird count sites that are accessible from the road. We are counting as often as possible during October and November and in future we plan to engage the public in the scheme.

Pied Shags seem to be appearing more frequently in Otago recently with 3 seen at Taieri Mouth, 4 at Moeraki, and singles at various places around Dunedin. A White Heron has also been seen at lagoons near Dunedin. There are still Sulphur-crested Cockatoos in the Catlins area. A pair of Marsh Crake has taken up residence in a pond at Sinclair Wetlands and have been willing to feed out in the open, giving the folk that did the spring survey wonderfully close views of this very secretive species. Acoustic recorders have again been placed out in the wetland to listen for Australasian Bittern booming.

– MARY THOMPSON

SOUTHLAND

In August, a Grey-backed Storm Petrel flew on to a moored vessel in Breaksea Sound, Fiordland, and an Australasian Bittern flushed out of hiding on Awarua Bay Road. Red-crowned Parakeets continue to make Otatara Scenic Reserve their home, with 2 seen flying near Mahuri Road and a juvenile found dead after flying into a window. This proves they are breeding and we hope they spread to nearby Sandy Point where there has been the occasional report of people hearing them call.

The Marsh Crake seen in the Pleasure Bay/Tip Lagoon back in May has made its presence known with some loud calling in the past few weeks. There are definitely 2 birds in the small area of jointed rush. Unfortunately, actually seeing them is causing some frustration.

While September was quiet on the birding front, October was a very good month for vagrants, with not 1 but 2 male Northern Shoveler found on the lagoon, or the nearby oxidation ponds in Lake Street. Many birders headed south to see these very rare birds, which must be the southern-most sightings in New Zealand of this species.

Just as we were basking in the glow of national attention, Paul Jacques went to look for Northern Shovelers, and could not believe his luck when he spotted a Whiskered Tern over the lagoon. To confirm his sighting, he returned later in the afternoon with a friend who managed to take a few photos, clinching the identification. This is also a first sighting in the deep south of this species, and brings to a total of 42 species recorded from the lagoon. Considering this body of water was earmarked to be filled in for land reclamation, it has now become a must-visit site for birders heading 'down south'. – PHIL RHODES



1. Northern Shoveler, Tip Lagoon Invercargill. Photo by Steve Wood; 2. Blue Petrel, off Otago Peninsula. Photo by Matthias Dehling; 3. Grey Petrel, off Otago Peninsula, Matthias Dehling. 4. Royal Penguin, Otago Peninsula. Photo by Ben Smith.

5. Grey-headed Mollymawk (right), off Taiaroa Head, Matthias Dehling. 6. Salvin's Prion, off Otago Peninsula. Photo by Matthias Dehling. 7. Whiskered Tern, Mangere. Photo by Oscar Thomas. 8. Indian Ocean Yellow-nosed Mollymawk. Photo by Steve Wood.

Bird News

Some of these sightings have not received official acceptance by the Birds New Zealand Records Appraisal Committee (1st April 2017 to 1st November 2017).

The 2 resident **Plumed Whistling Ducks** were seen regularly at Anderson Park in Taradale (Hawke's Bay) and a flock of 7 was photographed near Hokitika on 25/8. **Chestnut-breasted Shelduck** was at Miranda (14-16/5) and Tip Lagoon, Invercargill (1-2/11). **Australian Wood Ducks** continue to be seen at the Playhouse Café pond near Mapua (16 on 22/7; 12 on 19/7; 10 on 12/8). A male **Northern Shoveler** was at Miranda, 7-10/8. A male was also seen at the Pleasure Bay/Tip Lagoon and the nearby Lake Street settling ponds in Invercargill, 23-31/10. A second male bird there was a nice surprise for those who saw a duo together on 29/10.

NZ Dabchick pairs were present at both Taylor Dam (Blenheim) and Lake Killarney (Takaka) and an **Australasian Little Grebe** was reported at Island Road, Mangere, from 30/3 to 10/8. Another was at Lake Rotopounamou on 6/4, and 3 were seen close to NZ Dabchicks from Old Wharf at Tokaanu on 7/4.

A rare bird for the South Island was the **Royal Penguin** reported on Otago Peninsula on 20/1. Further south, a **Snares Crested Penguin** photographed at Horseshoe Bay (Stewart Island) on 17/3 and 20/3 was reported dead on 13/4.

An **Indian Ocean Yellow-nosed Mollymawk** was photographed at sea 5 miles off Golden Bay on 26/2. Two **Light-mantled Sooty Albatross** were seen from Cape Palliser, as well as 2 **White-headed Petrels** and 6 **Soft-plumaged Petrels** on 5/6. An immature Light-mantled Sooty Albatross was seen off Kaikoura Peninsula on 8/6, and an adult bird at sea off Otago Peninsula on 14/7. Two **Grey-headed Mollymawks** were seen off Taiaroa Head on 2/7, and another photographed at sea off Otago Peninsula on 14/7. A **Chatham Mollymawk** was seen at sea off Mahia Peninsula on 22/10.

A total of 43 **New Zealand Storm Petrels** was recorded at sea between the Mokohinau Islands and Bay of Islands from aboard *Spirit of Enderby* on 2/4. Another notable record was a **Grey-backed Storm Petrel** in Breaksea Sound (Fiordland) on 18/8. An **Antarctic Fulmar** was off Kaikoura Peninsula on 23/7 and a **Salvin's Prion** off Otago Peninsula on 27/3. Single **Antarctic Prions** were seen off Kaikoura Peninsula on 11/6 and Otago Peninsula on 29/6, the latter with a **Grey Petrel**. Another rare sighting was the **Blue Petrel** photographed at sea off Otago Peninsula on 14/7, as was a Soft-plumaged Petrel (21/9). A possible **Manx Shearwater**

was photographed at sea off Gisborne on 21/10.

A possible **Frigatebird spp.** was reported off the Kapiti coast on 14/4, but no record submitted. A **Brown Booby** photographed off Kapiti Island on 16/4 resulted in a record being submitted, which was accepted as the first for the Wellington region.

Glossy Ibis was recorded breeding among the Royal Spoonbill colony at Blenheim oxidation ponds, Hardings Road (5/11), with 9 birds and 4 nests seen, 1 of which had several eggs. An unusual record of **Cattle Egret** was 1 at The Snares on 5/4. A **Black Kite** was seen near Limestone Downs, Port Waikato, on 28/3.

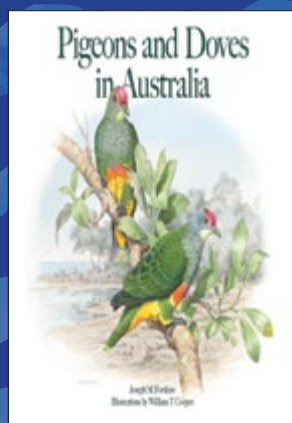
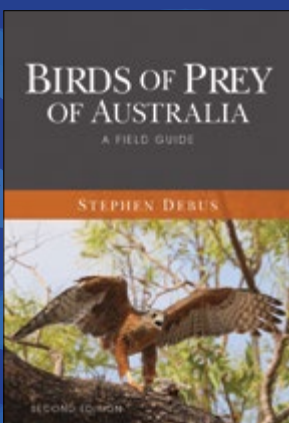
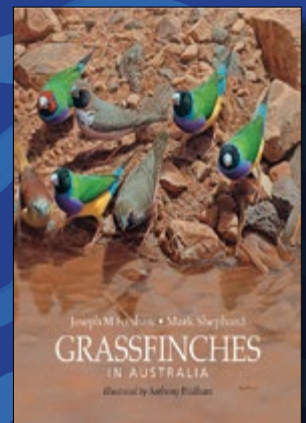
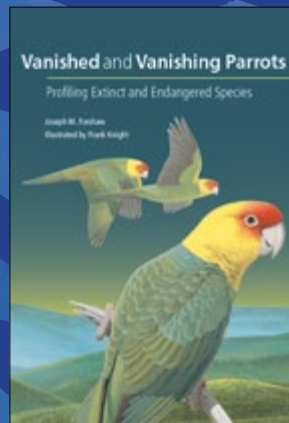
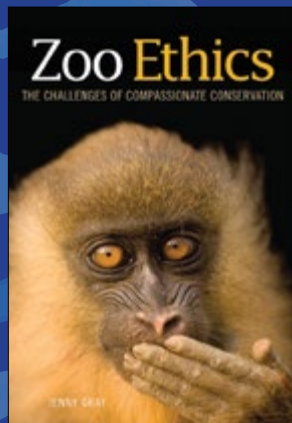
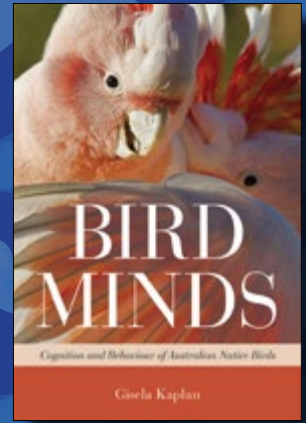
NZ Shore Plover was seen at Ahuriri Estuary, Napier (16/9) and Miranda (22/10). A **Marsh Sandpiper** was at Whakaki/Te Paeroa Lagoons, Wairoa, on 24-25/4, and again on 22/10. Another was at Miranda from 6/7 to 22/8, and again on 23/10, along with **Curlew Sandpiper**, **Red-necked Stint**, **Pectoral Sandpiper** and 3 **Sharp-tailed Sandpipers**. A duo of long-staying Marsh Sandpipers and a **Grey-tailed Tattler** were reported regularly at Pukehina Spit, Maketu (Bay of Plenty) during April and into May (14/5). One of these 2 sandpipers stayed to 28/5. A Grey-tailed Tattler was also at Te Motu Island (Kawhia) on 11/6, and Wherowhero Lagoon (Gisborne) on 21/10. A **Hudsonian Godwit** was reported at Lake Ellesmere on 2/4 and 8 **Black-tailed Godwits** were seen at Miranda on 21/5. A **Wilson's Phalarope** seen at Te Paeroa near Wairoa on 18/3 was probably the same bird that had been at Westshore Lagoon, Napier, over the summer.

Brown Skua was seen at Cape Palliser on 5/6, off Kaikoura Peninsula on 8/4, and Waitangi (Hawke's Bay) on 13/7. A **South Polar Skua** was seen at sea off Otago Peninsula on 27/3 and a **Long-tailed Skua** off Nelson on 19/2. Two more were seen at sea north of the Three Kings Islands on 3/4, as well as a **White Tern**. An unusual record so far north was a **Black-fronted Tern** photographed with a **Little Tern** and 8 **New Zealand Fairy Terns** at Big Sand Island (Kaipara) on 29/8. A **White-winged Black Tern** was regular at Bromley Oxidation Ponds (Christchurch) from 5/6 to 16/7, and another was seen at Motueka on 6/9. A **Whiskered Tern** was present at Mangere from 5-7/10, and at Tip Lagoon, Invercargill, from 30/10 to 2/11. An **Arctic Tern** was at Kaiaua near Miranda on 21/5. Another was seen with a **Common Tern** at Thornton River mouth (BOP) on 10/7, and another solo Common Tern was seen at Miranda on 24/5.

Finally, 3 **Rose-ringed Parakeets** were reported at Okere Falls (Rotorua) on 10/9 and 2 **Australian Tree Martins** were at Wairau Lagoon (Blenheim) on 9/4.

Sources: eBird New Zealand, Unusual Bird Report Database, BirdingNZ Forum, Regional Roundup, New Zealand Birders Facebook group.

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