

Pūkorokoro Miranda News

Journal of the Pūkorokoro Miranda Naturalists' Trust

May 2020 Issue 116

Our history making globe-trotter

JoJo's 27,000 km journey
there and back again



Centre well-placed
to survive the
shutdown

New tracking
reveals amazing
godwit journeys

Knot poisoning
a wake-up call
for Firth



From the Editor

Do you want a
digital magazine
or a printed one?
You choose



Welcome to the May 2020 issue of *Pūkorokoro Miranda News*. As some of you may know, a few weeks ago, while the country was in strict lockdown, we sent a digital version of this magazine to all those members for whom we have email addresses.

Now the lockdown has eased we've managed to get it printed. If you're now receiving a copy in the mail it's because you belong to one of three groups: those for whom we don't have an email address; those who may not have read the digital edition; and those who have told us they'd rather stick with print. We very much hope you'll read this message, think about the options, and then let us know how you'd like to receive your magazine in future by sending an email to admin@shorebirds.org.nz. The choice is entirely yours because PMNT is going to continue to produce both digital and print versions of the magazine for the foreseeable future.

But before you make your choice there are three factors we'd like you to keep in mind. First, printing and posting a magazine is not cheap, and postal costs especially continue to soar. By contrast, sending out a digital magazine costs almost nothing. Second, as a conservation organisation we should show leadership in lowering our carbon footprint, and a digital magazine is clearly better for the environment. Third, like it or not, the world is going digital, younger people increasingly get their information via smartphones, and we need to provide for that.

Due to the financial pressure the Trust is under, earlier this year we took a small step in this direction. Because of soaring international postal charges we approached our overseas members and asked if any would like to get it by email. We sent PDF versions of the February issue to those who responded and several got in touch to say how much they appreciated the change. It also saved us a bit of money.

Now Covid-19 has provided the impetus to take a much bigger step by sending a digital magazine to as many members as possible. We hope that that having seen it most of you will opt to stay with the digital format. But we also understand that many of you have had a lifelong love affair with print and simply don't enjoy digital. So we will happily continue to post you a printed magazine.

The most important thing is that, whether you get your *PM News* on paper or on a tablet, you continue to enjoy reading about all the exciting things PMNT is doing . . . from tracking godwits and Kuriri to rescuing sick Red Knots or rehabilitating coastal habitat.

Jim Eagles

Shorebird Snippets

Gearing up for the challenge of Covid-19

A mix of good luck and good management have seen PMNT reasonably well placed to survive the challenge posed by the Covid-19 virus in spite of a difficult financial year in 2019 which produced a deficit of \$84,000.

The good luck is that not long before the lockdown which closed the Centre we received a \$33,000 bequest from the estate of Stella Welford from Oxford, England. In her will Miss Welford expressed the wish that 'the money be used for the benefit of the Miranda Shorebird Centre'. That and a couple of other grants and donations meant we had a good start to 2020 from a financial perspective. We have also been able to claim \$17,000 from the Government's Covid-19 wage subsidy scheme and should make savings from distributing the magazine out digitally.

PMNT was fortunate that the lockdown occurred after Council reluctantly took the decision to suspend the post of Educator, and just as the Summer Shoreguide's contract was about to end, so our wage bill is now much lower. The paid staff now consists of manager Keith Woodley, who is keeping the Trust running from the Centre, and part-time assistant Chelsea Ralls, who is working from home, mainly focussing on the digital side of the operation, including sending out this magazine.

Of course, while the Centre was closed there was no income from shop sales, talks, accommodation, courses, etc – though the online shop continued to trade – and although it is now open again visitors have been few and far between, and numbers are likely to remain low for some time. Treasurer Kevin Vaughan has guesstimated that we could make a loss of \$50,000 for the year. That is well covered by reserves of \$180,000. We have just received a grant of \$5,000 from Trust Waikato and are awaiting the outcome of a funding applications to Foundation North.

In addition, the Trust is poised to implement some longterm financial measures approved by the Council at its February meeting aimed at stemming the run of deficits.

In particular, we are looking to to encourage more donations from the growing number of visitors who have been visiting the Centre to enjoy the displays and use the facilities, or calling at the hides to see the birds. As a start, the Trust has bought a Quest portable PayWave device, which has been installed at the Centre and will be used in the Godwit Hide when a shoreguide is present, so visitors who often don't have cash on them can make a donation by credit card. The hope is that a combination of new signage, explaining that the Centre has to rely on voluntary work and donations, and the ability to donate with the mere wave of a card, will produce more contributions.

Another major effort is going into building a bigger and more active membership. We are looking for a membership secretary, not to keep records but to coordinate measures to keep existing members and attract new ones, in the hope of increasing membership beyond the 600-700 it has been at for some years now. Anyone interested in finding out more about what would be involved should contact the Centre.

The Council is also taking steps to tighten up controls on expenditure and boost efforts to attract grants and sponsorships.

COVER: JoJo enjoying the sun on the Stilt Pond on 15 March with a beakful of feathers after a nice relaxing preen.
Photo by Jim Eagles and Tony Habraken

Roost appeal

The Manager's Roost Appeal is continuing but has, of course, been slowed by the lockdown. The current total is \$126,504 which is a good start towards the \$350,000 needed to buy a new cottage for the manager and provide space for visiting researchers. The Trust hopes to hear shortly about an application for funding from Trust Waikato. If you'd like to donate you can do so through our website or ring the Centre for details.

Car thefts

A 50-year-old man from Papakura has been charged in connection with the four break-ins at cars in the Findlay Reserve Car Park on 1 January and the attempted break-in on 5 January. The man charged appeared in the Auckland District Court on 10 March facing a total of 15 offences. All the incidents at the car park were recorded on our security cameras and footage was forwarded to Police.

Lunch with the Minister

Council member Bruce Postill represented PMNT at a recent lunch for local conservation groups with the Minister for Conservation Eugenie Sage in the Kauaeranga Visitor Centre. Bruce was able to make a few points about our work, particularly on behalf of Bar-tailed Godwits, which were well received. Afterwards the Minister made a point of approaching him to say how much Prime Minister Jacinda Ardern had enjoyed her visit to the Shorebird Centre last year.

Coastal ecology courses

The Shorebird Centre is hoping to cash in on an interest from environmental consultancies in learning more about coastal ecology. Keith told the Council meeting there had been a few inquiries on the subject so work was being done on a two-day course, with an initial day of lectures in Auckland (or wherever the participating company is based) and a second practical day based at the Centre.

Ideas for the Shorebird Centre

For some time we've been thinking about what a new Shorebird Centre might look like and now that has gone a step further. A group of senior students from the University of Auckland's School of Architecture, led by lecturer Jimmi O'Toole, visited the Centre on an assignment to come up with ideas for the building. Keith Woodley, who showed them round, said 'the visit was a very stimulating affair and I am confident some good ideas will emerge.' The original aim was for plans to be presented to PMNT in June but due to Covid-19 the project is currently on hold.



ANZAC VOLUNTEERS: While Centre assistant Chelsea Ralls was away for a month on a birding expedition the burden of filling in for her was magnificently taken up by the arrival in a motorhome of Wendy and Allan Pilkington (above). Wendy and Allan are two Kiwis who moved to Australia for some OE in 1979 and ended up staying. Since retiring 11 years ago they have been living as grey nomads wandering around Australia, with a few brief stays in New Zealand. Then in 2018 they bought a small motor home aiming to spend 4-5 months here 'when it is too hot to be anywhere in Australia.'

Both are keen birders, something they came to 'by accident' in 2010 during a stay at Broome Bird Observatory. Subsequently they've done stints at both the Broome and Eyre Bird Observatories as caretakers and in 2015 qualified as A-Class bird banders. 'Since then,' said Wendy, 'our wandering has been even more bird focussed as we've helped out with banding projects in Queensland, New South Wales, Victoria, South Australia, Tasmania and Western Australia.'

They've previously only managed brief visits to the Shorebird Centre but this summer were able to fit in four weeks helping out and enjoyed it hugely. 'We met some wonderful people,' Wendy said, 'and learned a lot about New Zealand's shorebirds. We've also gained a great deal of satisfaction from being able to contribute to the great work the Centre does in educating bird watchers and the general public about shorebirds. We like being busy and the Centre didn't disappoint here either! On our busiest day in the shop we recorded 111 visitors (I'm sure I missed a few) and sales in excess of \$1,000.'

What's happening at the Shorebird Centre

28 June, Annual General Meeting

The AGM, which was postponed due to the Covid-19 pandemic, is now scheduled for 2pm on 28 June, subject to whatever health rules may apply at the time. This is also Firth of Thames Wader Census Day with a 3.5m high tide at 12.33pm so there will be good birdwatching beforehand. After the AGM Adrian Riegen and Jim Eagles will update the current godwit and Kuriri tracking projects. Please check the website, Facebook and eNewsletter for further details.

Restoration Planting in the Findlay Reserve

This is on hold until we reach Alert Level 1. Watch social media for details.

15 August at 6pm. Winter Potluck Dinner

Details pending.

The Centre has now re-opened and the shop displays and limited accommodation are all ready for visitors. For further details contact 09 232 2781 or admin@shorebirds.org.nz.



FOLLOWING THE BIRDS: There was a packed house for Migration Day when author Andrew Crowe spoke about the amazing sailing achievements of the Polynesians, and the role played in traditional navigation by migratory birds, a subject which he researched for his latest book *Pathway of the Birds*. The photo shows Andrew with fellow traditional sailing enthusiasts Anihera Zhou Black and Mahuika Rawiri. Anihera crewed on the traditional-style *Ngāhiraka Mai Tawhiti* on its epic voyage from New Zealand to Easter Island (Rapa Nui) and back in 2012–3. Mahuika, from Ngati Paoa, built and sails a traditional Hawaiian designed craft on the Firth of Thames.

Judy Piesse Memorial

The inaugural secretary of PMNT, Judy Piesse, died three years ago and family and friends have launched an appeal to celebrate her work for the Trust. The initial idea is to buy a microscope with screen projection capacity for the Centre to use during courses or school visit. But there will likely be funds for further equipment.

Coastal restoration

Work to restore the Findlay Reserve continues to progress in spite of the pandemic.

Ray and Ann Buckmaster wondered what they would find when they returned to the restoration nursery after a two month absence – due to an overseas holiday and the Covid-19 restrictions – but it was thriving. Ray reports, ‘The pandemic had locked up an American family on the property for five weeks and they and Annie and Sean Wilson worked wonders.’ That, Ray said, is typical of the community input into the project which has been calculated as already amounting to ‘an amazing \$30,000’.

Partly thanks to that support, the project has just been granted a further \$17,000 from the DOC Community Fund, following the initial approval last year last year.

The project is now working towards putting 10,000 nursery plants, including 1,500 from the nursery, onto the Reserve. A fence has been erected on the northern boundary of the reserve to protect new plantings and a pre-planting weed control programme is already underway.

The original plan was to do most of

the planting over two weekends in June but that is on hold until Alert Level 1 is reached, at which point it will be possible to have group activities without distancing restrictions. Ray asks all those interested to keep an eye on our eNewsletter ‘and be ready to enjoy a morning of labour in congenial company, followed by a good lunch.’

More coastal restoration

The Tiaki Repo ki Pukorokoro Trust, which will administer the 20ha Crown



NUMBERS: Keith Woodley and JoJo Doyle counting at Miranda. Photo / Jim Eagles

Bar-tailed Godwit International Census

We should soon have a better idea exactly how many Bar-tailed Godwits there are thanks to the international census. It began in Alaska in late August 2019 when Dan Ruthrauff, of the US Geological Survey’s Shorebird Project, organised a three-day survey of all the sites that Bar-tailed Godwits gather at prior to departure south. Due to the vastness of the area this could only be done by planes using high-resolution photos (taken by Zak Pohlen) which were then painstakingly counted (by Ben Lagasse), a daunting task when just one flock had over 30,000 birds. At the time of the New Zealand wader census in November not all godwits are back so it was suggested that if another count was done in January-February, when the Australians do their census, we should get a pretty good idea of the overall population of the *baueri* subspecies. The numbers are still being pulled together but the outcome should be in the next *PM News*.

Adrian Riegen

reserve across the road from the Findlay Reserve, is now up and running. Jono Clark from Ecoquest is the chair, Centre assistant Chelsea Ralls is the executive officer and PMNT is represented by William Perry and Keith Woodley.

DPRK project

Usually at this time of year PMNT would have a team in the Democratic People’s Republic of Korea. Unfortunately Covid-19 forced the cancellation of this year’s trip, which was to have included a return visit to Sindo, visits to three southern sites last year’s team couldn’t get to, talking to students and launching a report about the work done in the DPRK since 2009.

PMNT initially rescheduled the visit to coincide with southward migration in August-September but then had to cancel altogether. In early 2021 the Council will consider whether it will be possible to return and finish the job.

On a more positive note, project leader Adrian Riegen says, ‘This does not mean nothing is happening in Korea. Very encouragingly the country is moving forward with plans to include some of their coastal sites and in particular Sindo as World Heritage Sites. Sindo certainly deserves that status, as it is one of the finest and most pristine wader staging sites in Asia.’

When it is possible to visit the DPRK again the project already has A\$10,000 from the Australasian Wader Studies Group and US\$5,000 from the East Asian-Australasian Flyway Partnership towards the cost. 



Dead birds in the Firth of Thames following an outbreak of poisoning four years ago. Photo / Rachel Hufton

Poisoning of Red Knots a wake-up call for Firth

An outbreak of what seems to have been algal poisoning in the Pūkoro Mirānda area this summer, mainly affecting Red Knots, needs to spark a comprehensive investigation into causes and solutions as soon as things return to normal, writes **Keith Woodley**.

In late summer over recent years there has been an almost annual outbreak of botulism around the southern Firth of Thames. The lower Piako River and nearby drains appear to be the main areas affected. This year Fish and Game staff reported over 3,000 dead ducks, with hundreds of eels also dying in stagnant drains.

However, along the Pūkoro Mirānda coast what appears to be a quite different event was unfolding. In late January PMNT staff and volunteers began noticing shorebirds that were unable to fly. Over 90 per cent of affected birds were Red Knots, and during the next month over 80 were retrieved, with most sent to bird rescue operations in Auckland, Hamilton, and Thames. All but 18 subsequently recovered and were released.

While predominantly impacting ducks, botulism can affect a wide range of species. However, the fact that almost all affected birds in this event were of one species, strongly indicated something other than botulism was involved. Knots are among the most highly specialized of shorebirds, their diet being almost exclusively bivalve molluscs, which they crush in the gizzard.

A toxic algal bloom was suspected to

be responsible, with toxin concentrated in tiny filter feeders then being ingested by knots. Not only did the knots show no respiratory distress, a key symptom of botulism, they displayed other symptoms not consistent with botulism. Mortality events of Red Knots previously have been reported in South America; toxins have been suspected to be involved, but not proven. Algal toxins are known to affect a variety of coastal birds including oystercatchers.

What was going on? Advice to DOC from Cawthron Institute and Environmental Agencies was to collect samples from the shellfish that the birds are feeding on along the southern end of the Firth of Thames to be tested for marine algal toxins. In mid-March DOC staff and PMNT began organizing to do this. Knots begin departing on northward migration during March so there was only a narrow window of opportunity to gather meaningful data before the birds were gone. An aerial survey of the Firth at low tide would try and locate where knots were feeding. Benthic samples would then be taken for analysis, which Cawthron had offered to do free of charge. As it happened, the aerial survey took place on the eve of the Covid-19 na-

tional lockdown and that was far as things went for this season.

This event is clearly a wakeup call about the health of the Firth of Thames, one of New Zealand's six Ramsar wetlands of international importance, and one of our three sites in the East Asian Australasian Flyway Site Network. In New Zealand Red Knots are classified as Nationally Vulnerable, but their populations in the East Asian Australasian region have been declining sharply in recent years. Analysis of the most recent wader census data for New Zealand, indicates a decline of nearly 40% since 1983-1994.

The main driver of this is habitat loss at migration stopover sites in East Asia but we need to ensure that this country is not contributing to the decline. It is estimated that, as of mid-March 2020, some 10% of the Red Knots that were roosting at Pūkoro Mirānda had been affected. The 80 birds recovered there are likely not the full picture. How many birds succumbed to the event unseen elsewhere around the mangrove fringed bay? Throughout the event we found regular evidence of incapacitated birds taken by predators. Clearly it was a serious situation.

Predators strike at sick birds

The greatest stressors on the biological system in the Firth are from terrestrial drivers related to human activities, including the generation of sediments, contaminants, habitat loss, invasive species, and nutrients. Excessive sediment accumulation is compounded by excess levels of nutrients largely from land uses on the Hauraki Plains, one of the most intensively farmed areas in the country. Estimated leaching rates of agricultural nitrates from the Hauraki Plains, and modelled concentrations of total nitrogen and total phosphorus in Hauraki rivers are estimated to be amongst the highest in the country. Nitrogen loads from the rivers draining the plains are already predicted to be high and, according to the State of the Gulf report, are expected to increase.

The problem with trying to establish what may be happening on the Firth, is that little is known about densities and distribution of both benthic fauna (shorebird food), and the birds themselves. Between January and March there may be 20,000 shorebirds of different species spread over 8,500 ha of tidal flats. Wide scale benthic monitoring of the southern Firth has for a long time been in the too-hard basket. The extent of the area and the treacherously soft substrate in many places presented major issues of access, practicality, and safety. But it is now clearly established (as widely used in the Netherlands) that water-borne benthic core sampling is feasible and practical. This clears the way for a monitoring project on a large enough scale to be effective. Several years ago, we began developing such a project but, distracted by other priorities, progress stalled. The suspected algal bloom event this season now demands the project proceed.

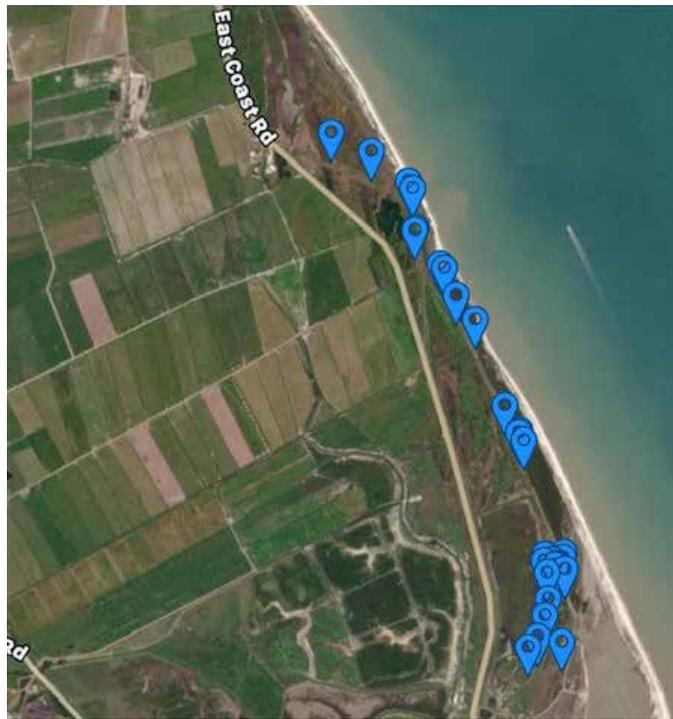
Comprehensive aerial surveys to cover seasonal change as well as variations within the tidal cycle will be required to map bird distribution. Survey transects would be plotted based on these data and a sampling regime developed. This will involve a massive amount of resources both in terms of funding and time for sample sorting and analysis. In short, what is required is a multi-year, multi-agency programme to effectively monitor what is happening on the Firth. PMNT is keen to initiate this but will need other partners which may include the University of Auckland, Massey University, the University of Waikato, DOC, Waikato Regional Council, and possibly Crown Research Institutes. To ensure there is a silver lining from the event this summer, we need it to be a catalyst for action. 🐦

The plight of birds affected by toxins was exacerbated by a simultaneous assault by cats and Ferrets on shorebirds in the Findlay Reserve area.

First came the attack on nesting Black-billed Gulls (reported in *PM News 115*) which resulted in no chicks being fledged this season. Tooth marks on broken eggs pointed the finger at cats or mustelids and volunteer JoJo Doyle, who back home in the USA is an expert Bobcat tracker, discovered several samples of cat scat.

Then the remains of several birds – thought to be most likely birds unable to fly because of the poisoning – were discovered around the Stilt Ponds. DOC specialists suspect both cats and Ferrets might be involved, especially after the discovery of what look very much like Ferret nests in the area. Some cat traps were set around the reserve and caught three cats. In addition the Centre has obtained two DOC 250 traps and three DOC 200 traps which have been baited with rabbit meat.

The Centre already has trap lines on the reserve which are maintained by a DOC contractor. Independently of these developments, the Western Firth Catchment Group are installing additional traplines inland from the coast. Hopefully this will help reduce predators moving into the area.



PREDATOR ALERT: (top left) JoJo Doyle's map of cat scat found at the Findlay Reserve; (top right) a sample of what she found; (bottom left) the suspected Ferret nest near the Wrybill Hide. Photos / JoJo Doyle



Thoughts on a very unusual autumn

Largely confined to the Centre and all alone because of the lockdown, manager **Keith Woodley** muses on not being in Asia, the earliest days of PMNT, a very dry summer, the departures of the Arctic migrants and some unusually cooperative Pacific Golden Plovers.



Pukeko standing screeching on the driveway, herons roosting on the water tanks outside the window or on the front deck railing, Police checkpoints down at the corner – these are interesting times.

Certainly, the Level 4 lockdown is unprecedented, as is the absence of a single visitor for weeks on end. But there is something else about late April at Pūkorokoro Miranda that seems very odd: my own photoperiod cues feel out of sync. As I sit beneath a clatter of sparrows and look across the dry, cracked bed of Widgey Lake I realise it is a problem of latitude. For the time of year, I am in the wrong hemisphere: usually in recent years I have been in China or North Korea but Covid-19 has stopped that, too.

Another feature of the lockdown period also carries a curious hemispheric disconnect – yet touches on the very origins of the Shorebird Centre. Most mornings a loud croaky honk descends over the centre and surrounding paddocks as the local Canada Goose flock, usually about 70 birds, perform their commute.

Most often associated with the gravel pit ponds north of Whakatiwai, over the past summer they have become a regular presence along the Pūkorokoro Miranda coast, either heading out onto the Firth or settling in paddocks down towards the Pukorokoro Stream. The straggling V-shape formation, and the unmistakable sound carrying over a great distance, are quintessential features of an American or Canadian landscape during migration but seem oddly out of place here.

Yet they feature in the very beginnings of the Centre, long before it was built. On the evening of 12 January 1942 as Dick Sibson and a birding companion were preparing to camp at Taramaire, two large birds flew in high from the north. The two Canada Geese were lured down to an extensive pond immediately to the south of the kink in the road, which is exactly where the centre now sits.

Now well established, the species was virtually unknown in northern New Zealand at the time. It was certainly the first record for Pūkorokoro Miranda. Indeed, a case could be made for it to be the first ever entry in a species checklist for the centre grounds.



LOOKING BACK: Canada Geese could be considered the first entry in the Shorebird Centre's species checklist. Photo / Phil Battley

Meanwhile the hot dry summer this year was a prolonged affair. By late April there had been some rain, sufficient to produce two pathetically shallow puddles on the lakebed, but these soon dwindled. Clearly this was of no consequence to the pair of herons. They were finding prey within the cracks although nothing big enough to be identifiable from a distance. Whatever it was there was a plentiful

supply, explaining why the herons became a daily occurrence for much of the lockdown.

I have been most fortunate that my bubble includes a rather extensive front yard. Walks down the trail or along the shell bank have revealed business as usual for the local birdlife. Flocks of Goldfinches working patches of seed heads, dispersing ahead of my

March 2020

Written after a walk in the Mangemangeroa Reserve in Howick while pondering the Silvereye (*Tauhou*) and Red Knot (*Huahou*). The title of **March 2020** implies the current drought, autumn season, and the pandemic.

Bruce Keeley

the
tauhou
whose encircled eye
has seen the
shortened day and cooling earth
calls a plaintive flock to hope for rain to swell the autumn
fruit while overhead the huahou in urgent reddening skeins
rehearse the isthmus Tamaki to Manukau and back
no coronaviral spread their fear but rather
shrinkage of a mudded resting place
towards
their
arctic
goal



SIX AT ONE GO: Keith Woodley captured six out of seven of the tagged birds - JoJo plus this season's catch - in this remarkable photo of the Stilt Pond just before the birds started leaving. Ra was the only one missing.

Recent sightings at Pūkorokoro

Arctic Migrants

516 Bar-tailed Godwit
27 Red Knot
1 Red-necked Stint
1 Hudsonian Godwit

NZ Species

300 SI Pied Oystercatcher
1900 Wrybill
57 Royal Spoonbill
Banded Dotterel
57 Caspian Tern
Variable Oystercatcher
NZ Dotterel
Australasian Shoveler
Banded Rail
Hybrid Black Stilt
1100 Pied Stilt
6 White Fronted Tern

approach; the usual abundance of Skylarks everywhere; oystercatchers strewn all over the tidal flats, dominating the scene with most of the godwits and knots now absent; the sharp profile of Kingfishers streaking from perch to prey and back; and, on two occasions, a Bittern flushed from near the edge of the trail.

There were regular Bar-tailed Godwit departures through the second half of March and into the first few days of April.

The satellite tags deployed here in November by Phil Battley and his international team have provided excellent data on migration movements to the Yellow Sea region. That some natural systems continue in their normal pattern during these unprecedented times for our species, offers us some reassurance.

As of 10 April, there were still some Arctic migrants yet to go. These included nearly 200 Red Knots, most of which were living up to their name as well as being extremely fat.

Roosting nearby was a Hudsonian Godwit, presumably the same bird that has been on the Firth over the last year or so. Most of the time it has preferred the roost at Piako but was known to venture over to the Stilt Ponds now and again. This was one such occasion, and there it sat – maintaining social distance from the other godwits – in full breeding plumage. Its body colour once again brought to mind how aptly it is named: *Limosa haemastica* – the colour of dried blood.

Just as I had arrived at the northern end of the ponds, 12 Pacific Golden Plovers landed before me. Upon touch down both legs were visible, and I was able to register five band combinations, before they

realised what was happening. Unwittingly they were being most cooperative – which, as anyone who has followed the long and torturous course of our Pacific Golden Plover project will know – is by no means their default setting. Quite the contrary, and within seconds they had reverted to type: each bird hunched up on one leg, with just the glimpse of a band colour here or there.

Nevertheless, when I returned an hour later, they had relented slightly. Now they were lined up within the frame of one photo – still without band combinations fully identifiable – but with all six antennas showing. Another remarkable event in a remarkable period of time. 

Whimbrels

sun-stunned
fat as melons

six-pack of barrels
stacked in a row

ice cream scoops
propped on crops

high tide siesta
on half-asleep eyes

overstuffed parcels
streamlined as turkeys

awaiting improbable
air mail to China.

Amanda Hunt

Published in the literary journal
Takahe No 96



BIRDS OF A FEATHER: JoJo Doyle and JoJo, the Kuriri named after her, back on the Stilt Pond. Photos / Jim Eagles

JoJo Doyle finds JoJo Kuriri back in NZ

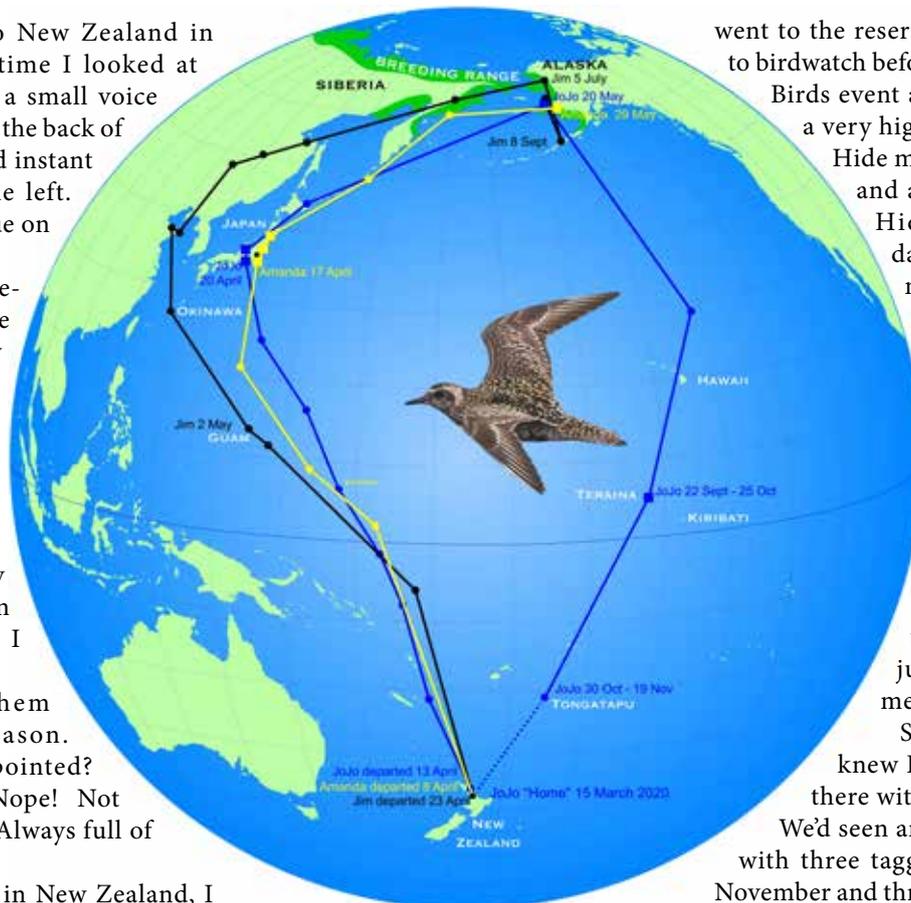
The discovery of the Kuriri called JoJo, back on the Stilt Ponds after a 27,000km journey from New Zealand to Alaska and back, was an amazing moment. The bird was spotted by his namesake JoJo Doyle just a few hours before she was due to return to the USA. The sighting came four months after we last heard of JoJo when his tag stopped broadcasting while in Tonga. And it makes the Pacific Golden Plover only the second species - after the Bar-tailed Godwit - we have been able to trace on their migratory round-trip. Here's **JoJo Doyle's** account of their reunion.

Since returning to New Zealand in November, every time I looked at PGP's color bands, a small voice ran programmed in the back of my mind like an old instant replay, 'Blue on the left. Blue on the left. Blue on the left. Blue on the left.'

I would say it repeatedly to anyone at the hide or fellow birders when the conversation came to finding Jim, Amanda, or JoJo, the three birds tagged last season. That was even my mantra to those in the Pacific Islands I stalked on eBird.

So none of them showed up all season. Sad? Yeah. Disappointed? Yeah. Surprised? Nope! Not with these rascals. Always full of surprises. . .

On my last day in New Zealand, I



went to the reserve like everyone else to birdwatch before the Farewell to the Birds event at the Centre. It was a very high tide so the Godwit Hide mudflats were covered and approaching the Stilt Hide I saw an abundance of people. In the moment I decided I really wanted to just continue walking to the north end of the Stilt Ponds and look at the PGPs roosting there as they had been doing for a predictable while. There weren't many people up there. It would be just a quiet last moment.

Set up the scope. I knew Piako birds would be there with this very high tide. We'd seen antennas there A LOT with three tagged birds right from November and three more just recently.

Including a newly tagged 'Blue on the left' Kowhai (BY) tagged just a couple of weeks previously.

So I started my personal PGP protocol. First count PGPs, notice antennas but not document them, after counting go back from right to left, bird by bird, and mark down the color bands accurately, take your time!! Notebook: 61 PGP. Bands: RB,RR,BY, RY I write down colors as I find them. Always left leg then right.

THEN....then.....blueblue... left? Blue? Left? Blue left. OMG. Is this blue on the left? Which way is the bird facing? Which is the left leg? It is DEFINITELY blue on the left. The right leg? What's on the right leg? The color doesn't pop. I go over each bird in my mind. Amanda is blue-red. No the right leg is not red. Jim is blue-blue. The right leg would show the same color as the left . . . not happening. I remember squinting, squinting, squinting in the scope to catch a glimpse of the color on the right leg (definitely not yellow) and a flash back comes into my mind of many, many times at Piako squinting to

see the white of JoJo, because it didn't always catch the light. And then I see it! I see the white. And I saw the antennae had an upward curve to it as though it had been used . . . older. Could this be JoJo? It is JoJo. But I certainly couldn't dare to call it on my own. I needed help.

Amanda, my partner in crime, in monitoring the PGPs. I couldn't wait to tell her. 'I've got blue-white. It's JoJo. I'm looking at JoJo. Can you come over?' She wasn't at the hide but 15 minutes away. I call Keith. 'JoJo's here,' I say. 'Yeah, I know it's JoJo' 'NO. JoJo the bird! JoJo the bird is here! I'm looking at JoJo the bird right in front of me! Can you drive down?' No. On call at the centre.

Tony. I'll call Tony. He's up at Kaiaua, 'I'll be right there.'

Amanda calls back. 'Adrian is at the Stilt Hide and he's coming.' I look up the path and see the dream team walking with their scopes towards me: Adrian, Will and Bruce. I remember thinking it couldn't be more perfect.

Adrian says calmly, 'So ya think you have JoJo.' They get on the bird. I

stay quiet letting them go through the process. Discussion. Discussion. 'Yeah, that's JoJo,' Adrian says. It felt so good.

I have to tell Jim! I'll email. He always replies right away cause he's a journalist. Jim and Tony show up next and photograph and analyze the bird, the plumage, the antenna and do the things that Tony and Jim do... and the rest is history.

Us PGP lovers feel these birds are in a dimension of their own, seemingly reading our minds, staying a step ahead of us, full of surprises. So of course I wonder why does this bird show up hours before I was to fly away? Did it know I had been looking for it every day since I arrived in November? It does feel a bit miraculous. 

Another twist in the amazing Kuiriri story

For PGP Project coordinator **Jim Eagles**, to have one of last season's birds return safely to Pūkorokoro was a birding dream come true.

Chris and I were just finishing up a quiet lunch at our bach in Kaiaua, preparatory to a gentle drive to the Shorebird Centre for Migration Day, when an email from JoJo Doyle arrived like a thunderbolt.

The subject line shouted in capitals: JOJO BIRD IS HERE!!' And the message said: 'I'm not lying. Adrian, Will, etc helped reconfirm it. JoJo.'

The JoJo bird was one of the three Pacific Golden Plovers we had caught in February 2019, banded and fitted with satellite tags, then tracked to their nesting grounds in the Arctic. Unfortunately just as they were about to leave Alaska in September to migrate south the tags on the other two birds – Wee Jimmy and Amanda – stopped broadcasting.

But JoJo's tag kept going and we were able to track him to the island of Teraina in Kiribati, where he stopped over for about a month, then Tongatapu in Tonga, where he took another break.

Then in November a couple of transmissions indicated he had suddenly left Tonga heading for New Zealand, got at least as far as the Kermadecs – only 800km from the Hauraki Gulf – before turning round and returning to Tonga, possibly

because of strong headwinds. Thereafter his tag stopped transmitting and several ground expeditions by local conservationists and staff and pupils from Liahona High School failed to sight him.

But we always hoped he might turn up one day having completed the full circle of the PGPs annual migration, in his case a trip of over 27,000km. So JoJo's email was very, VERY exciting. Once I had recovered use of my faculties I sent a speedy reply: 'Wow. Where are you?' She replied: 'Stilt Pond north end.'

This brought an instant end to our leisurely plans. Within moments we were on the road, driving past the Shorebird Centre where an audience of 120 was assembling to hear guest speaker Andrew Crowe, and heading for the Findlay Reserve.

There a high-speed walk past lots of smiling birders, mostly carrying scopes and offering cheery comments like, 'Have you heard about JoJo,' or 'Great news. Well done,' took us to the Stilt Pond where the human JoJo was still bubbling with excitement. In fact despite the threat of Covid-19 we exchanged hugs. It was dream come true . . . and another unexpected twist in our PGP saga. 

The Kuriri team of 2019-2020



Wee Jimmy (blue, blue)



JoJo (blue, white)



Amanda (blue, red)



TRICKY: Putting out mist nets for one last try at the Kuriri.

Photo / Jim Eagles

A remarkable last gasp success

It wasn't just a last chance attempt, it was after the last chance attempt, and it was in the last minutes before the sun came up and halted catching that PMNT's Kuriri catching team netted and tagged three more PGPs, taking the season's tally to six. **Jim Eagles** tells the story.

If those three Pacific Golden Plover had arrived just a few minutes later we would almost certainly not have caught them. We would have ended the season just like the previous one with only three Kuriri fitted with satellite tags. Instead we've now got six birds to track on their long migratory journey to the Arctic.

But with PGPs we have learned to expect only the unexpected. Last season we must have tried a dozen times to catch PGPs in cannon-nets and got none. This season we got three of these elusive birds the first time we put the cannon-nets out way back in November.

But if we thought that meant catching any more was going to be easy the Kuriri had other ideas. We didn't even get to try cannon-netting again because the birds refused to roost consistently on a suitable site. We did go mist-netting lots of times, once at Karaka on the Manukau Harbour and the rest at Pūkorokoro, and tried all sorts of cunning tactics, including using a boom box to broadcast Kuriri chatter, but got nowhere. One attempt had to be abandoned without a net raised when the tags got lost in the courier parcel network.

By the time we got to February, when

lead bander Adrian Riegen was committed to going overseas, things were looking a bit desperate. But Tony Habraken, who took over the role of lead bander in Adrian's absence, decided on one final effort over the weekend of 28-29. Gillian Vaughan, who came to help despite having had a gruelling week at work, said she made the effort to get there because, 'This is our last chance to get more PGPs.' Others no doubt felt the same.

Over the two nights we put up nets at three spots – two on the Stilt Ponds and one on the Shellbank – and caught one Wrybill, a couple of South Island Pied Oystercatchers and no PGPs. So that was it. Once again we would track the migratory paths of just three Kuriri and our remaining tags – which were approaching their use-by date – would go on Red Knots.

Or would they? Out of the blue an email arrived from Tony. 'Because I am one who lives in hope,' he wrote, 'there is still a window for one last effort [this Friday night/Saturday morning] especially after what we learned about the PGPs this weekend.' Tony said he was aware of the plans to use the tags up on knots but

'I am like a dog with a bone on this one.'

Outwardly I groaned because I really needed a restful weekend, but inwardly I was thrilled to have another chance to catch more PGPs. It wasn't easy to assemble a team because the short notice meant several ploverphiles had made other commitments. But Gillian dragged herself down again, Keith Woodley acknowledged that he was running out of enthusiasm but loyally turned out, my wife Chris, who probably felt same, agreed to come with me, the ever-enthusiastic JoJo Doyle said she was in, Allan Pilkington – who with wife Wendy was helping at the Centre in Chelsea Ralls' absence overseas – was happy to try again and Tony recruited Roy Collin, a Field Course graduate who had helped us with PGP catching last season. So it was a band of seven who assembled on Friday evening to put the nets out.

The insights which had inspired Tony to make this final effort were two-fold: First, that the PGPs, which often roosted at night on the northern end of the Stilt Pond, got there by flying down the middle of the pond so that was where we would need to put nets to catch them; and second, the plovers seemed to have developed



SUCCESS; (from left) Gillian Vaughan and Tony Habraken carry out the tricky job of attaching the first transmitter; success; happy Kuriri catchers Gillian, Tony and Jim Eagles. Photos / Jim Eagles

a preference for roosting at night near the edge of water, so we should place nets near wet areas.

So just after dusk on 7 March we headed to the Findlay Reserve. The first net was erected across the shallow waters and smelly mud of the Stilt Pond. And the second went up on the mudflats opposite the old Limeworks – the general area where we had caught all three PGPs last season – in a spot where the tides that weekend were high enough to spill out across the mud. The work was finished by 11pm and we trooped back to the Centre for a couple of hours sleep, Chris and I enjoying the comfort of the Curlew Room, the younger and less fortunate relying on mattresses in the shop and display area.

At 2am Gillian's alarm went off and we staggered back to the reserve to unfurl the nets, then settled down on an unseasonably cold and windy night to wait for the high tide to do its work of forcing the birds off the outer mudflats and into our nets.

Tony, Roy and Allan took on the messy task of watching the Stilt Pond net. Gillian, Keith, Chris and I watched the Limeworks net. JoJo was stationed centrally at the Godwit Hide with the tags and PGP banding gear. This was it. Our last last chance.

Needless to say, with Kuriri being the target, I wasn't confident but there were some positive signs. The mole who always tipped off the PGPs about our plans had this time worked in our favour because, after hearing it was our final try, they'd assembled from all round the Firth to have one last laugh at our expense so there were 69 of them. Also, for the first time on a catching effort I was wearing my lucky Pacific Golden Plover hat.

Every 15 minutes or so a couple of us

went out to check the nets. Nothing. More nothing, even though we could hear the birds making a racket all around. The first fingers of dawn started poking up into the sky over the Coromandel Peninsula, but still nothing. Then just before 6am Gillian and Keith went out for a check which lasted long enough to raise our hopes. When they came back they were carrying something in a bird bag. Was it . . . ? 'A New Zealand Dotterel by the feel of it,' said Gillian. Disappointing, but still interesting, so I dug out my camera.

But when she extracted the bird into the bright lights of our headlamps I saw, to my amazement, not the pale feathers of a dotterel but a bird with speckled black and gold plumage, very low on the breeding plumage scale admittedly, but surely it was . . . it must be . . . a . . . 'Goodness, golly, gosh,' said Gillian (or maybe she said something less ladylike), 'a PGP!'

That sparked off a burst of frantic activity. The PGP was put into a box and taken to a quiet spot to wait. It was starting to get light and a couple of cars had arrived in the car park so the banding equipment was taken round the corner to a spot on the edge of the mudflats away from the gaze of early morning birders. JoJo arrived with the specialist PGP gear. Tony was summoned to join Gillian in the complicated task of fitting the tag but, as Murphy's Law would have it, several non-target birds had just hit the other net so it took him a while to get over.

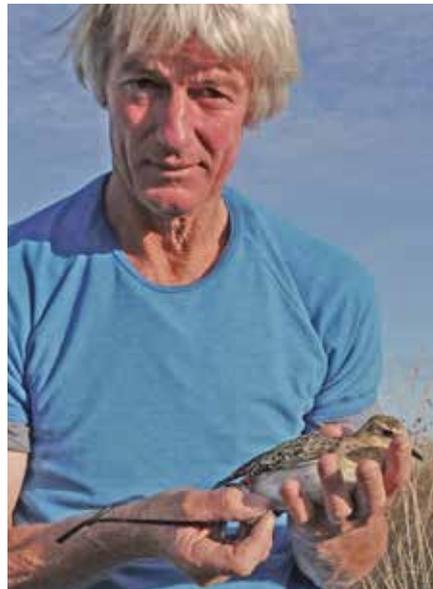
While we waited, Gillian and Keith went to furl our nets so no more birds would be caught. As it happens, a few moments before we had heard PGP calls from the vicinity of the sarcocornia lining the route to the nets, and as they walked

past a flock of birds was flushed out and headed north.

By then it was light enough for us to see from a distance that some of these birds went into the nets and I did allow myself to hope one of them might be a PGP. But when Gillian and Keith returned from freeing and releasing these birds – about 20 Bar-tailed Godwits and Pied Stilts - and furling the nets they had two bags. Wow. A total of three PGPs. This was beyond my wildest dreams. When Tony arrived I gave him a high-five. 'No,' he said, 'this is worth 10.' So we did a high 10.

Once all the bits and pieces had been assembled, Tony and Gillian sat down on the edge of the bay beside the old Limeworks, weighed and measured the first bird and fitted it with a numbered metal leg band, two red plastic leg bands and the all-important satellite tag. Fitting the tag is a complex exercise, involving attaching an individual, handmade harness of stretchy nylon material, which has to be perfectly positioned and tight enough to hold the tag and its aerials in place, making allowance for the fact that they'll probably get fatter before they leave but will lose a lot of weight during their long flights.

Making it even more challenging was the fact that Tony had only been involved in fitting a tag four times before – a year ago with Adrian on Amanda, then working with the American team of Dave Bybee and Mike Weber on the trio caught at the start of the season – and Gillian had never done it. But working slowly and methodically, hugely assisted by an amazing book made up by JoJo with photos showing every stage of the process when it was performed by world expert Wally Johnson, the first bird was done.



The Kuriri team of 2020

Tony released it – I say ‘it’ because we’ve given up trying to sex PGPs – and we watched anxiously to how it had been affected by the experience. The bird waddled and then ran out into the mudflats, flapped its wings and took off, as we all heaved sighs of relief. Then followed Blue/Yellow, which I released, and it also trotted a few yards away then flew strongly towards the shellbank. Finally Roy released Red/Yellow who, despite having the quickest treatment, due to Tony and Gillian becoming more accustomed to their task, walked a bit awkwardly and didn’t try flying. It scuttled towards the mangroves and sheltered for a while, tracked cautiously by Tony, then suddenly flapped its wings and took off.

In the afternoon Tony went back to the reserve to see how our new recruits were doing and spotted all six tagged birds when they came in on the afternoon high tide. ‘The last three are doing fine and their transmitters are sitting very well, nicely horizontal or near flat over their backs, none point down like two of the others,’ he reported. ‘All pretty much as expected, I think, nothing that a bit of time and space will not fix.’ In the weeks after that there were many more sightings confirming that all the tagged birds were in good shape.

After a fascinating email discussion about names – including the idea that we might liven up the election by calling the latest trio Jacinda, Simon and Winston – it was decided to follow the same approach as with this season’s first three birds by giving them Maori names related to their colour bands. The first three were called Tea or White, Whero or Red and Kikorangi or Blue. So the newcomers became Ahi or Fire, Rā or Sun and Kowhai or Yellow. Good names to travel by. 🐦



Kikorangi (white,blue)



Tea (white,white)



Whero (red,blue)



Ahi (red, red)



Ra (red, yellow)



Kowhai (blue, yellow)



MOVING ROUND: The map shows where this season's tagged Pacific Golden Plovers have spent time while getting ready to migrate to the Arctic. Map / Google Earth

Uncooperative Kuriri are probably giggling in Japan

Continuing the troublesome track record of their species, this season's six tagged Kuriri sent several GPS fixes while they were in the Firth of Thames, but since leaving have maintained radio silence, apart from a single unconfirmed signal putting Ra on the Japanese Island of Honshu, writes a frustrated **Jim Eagles**.

Chances are that as you're reading this we have six Kuriri with live satellite tags – plus JoJo from last season, whose tag battery is flat – resting and feeding in the paddy fields of Japan en route to their nesting grounds in the Arctic.

Unfortunately, though no tagged birds have been seen at Pūkorokoro for several days, we don't know definitely that any are in Japan, because we haven't received any confirmed GPS fixes for them.

We don't even know for sure that they have all left the Firth of Thames, because the Covid-19 restrictions made it difficult to keep track of the birds at the Findlay Reserve and, even more so at the Piako

roost. But it seems almost certain that all this season's Pacific Golden Plovers have indeed migrated.

Fortunately, during the pre-migration period we did get GPS fixes from all six tags (as the map above indicates) so we know they work. They found the birds mainly spending time on mudflats, ponds and farm paddocks around the reserve area. Some of them also made forays to the mouth of the Piako River, as well as the old Karito roost, which Tony Habraken recalls being well-used by shorebirds years ago before it was swallowed up by mangroves. Maybe it has got a new lease of life.

We were also able to get fairly regular

reports on the action at the reserve from Keith Woodley and especially Amanda Hunt who were able to visit in the course of walks from home. Were they within the rules? Well, Amanda was stopped by a Police roadblock one day and told by a Constable that birdwatching was 'not what Jacinda intended', but allowed to continue anyway. No one was able to check out the birds at Piako because a visit there would almost certainly have breached the rules.

But, while the restrictions made reporting difficult, because of the absence of confirmed GPS fixes from Kuriri that have left the Firth, we have to try to piece together the story of this season's northward migration from those reports.

The last time Amanda saw Ra was on 3 April and she thinks he probably left in a group of 10 she saw depart the following day.

We know the others didn't leave then because on the 10th Keith took a photo of six Kuriri with aerials on the Stilt Ponds (shown on page 8) and analysis of that indicates that Ra was the only tagged bird missing. The same day our expert satellite tracker Lee Tibbitts reported that the tags on Kikorangi, Whero and Tea had sent GPS fixes from the Firth of Thames.

Amanda saw Ahi, Kowhai and Whero on the 13th but on her subsequent visits found no Kuriri at all. On the 16th, after seeing no PGP's for the third day in a row, she not unreasonably concluded they had probably gone.

Sorting the Kuriri girls from the boys

We didn't have much success with picking the genders of our first three Kuriri on the basis of their tail feathers. Crazy Jim turned out to be a girl while the redoubtable JoJo was a boy. Amanda we did get right.

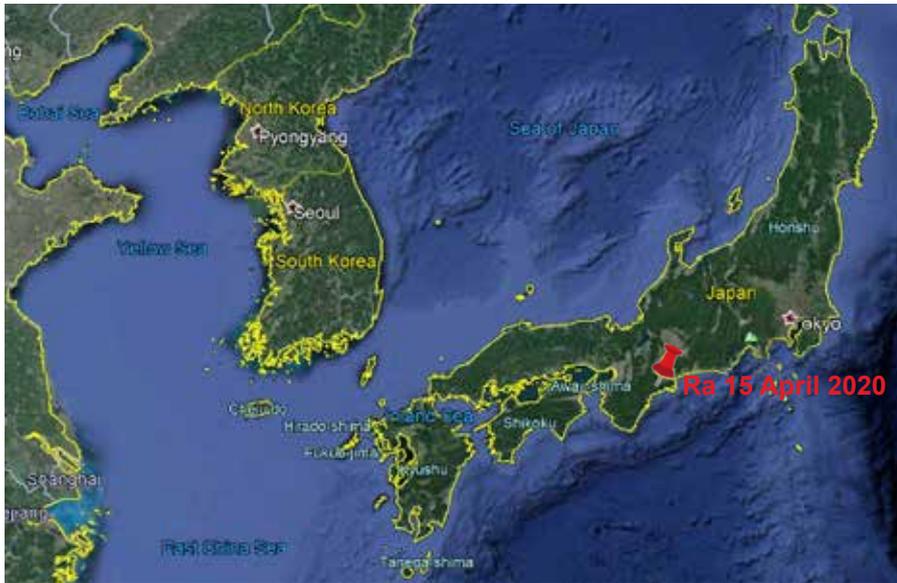
For that reason we didn't really try to identify the gender of this season's six birds though we did take some photos of tail feathers, have kept an eye on their breeding plumage and studied recent photos with great interest.

In recent days there has been an interesting discussion between the chief observer down at the Findlay Reserve Amanda Hunt, our local bird whisperer Tony Habraken, world

authority on PGP's Wally Johnson and Alaskan shorebird expert and satellite tracker Lee Tibbitts.

As a result there has been a sort of consensus that, most likely, probably, chances are, maybe Ra, Kikorangi, Ahi, Whero and Ra are females while Kowhai and Tea, plus JoJo who has also been with us, are males.

But, of course, opinions may change. As Wally put it. 'A couple of what I think are females might fool us and turn out to be males. But given the advanced moult of the three males it's reasonable to assume females are equally advanced. Also females are variable with some considerably brighter than others.'



POSSIBLE LOCATION: An unconfirmed Argos satellite report on 15 April indicated Ra could be on the island of Honshu. Map / Google Earth

Later that same day we got a report from Lee of an unconfirmed Argos satellite signal indicating Ra could be in Japan (shown in the map above). We did receive such reports during the previous season's migration and, while some proved to be accurate, others didn't, which is why Lee has always told us to ignore them unless they are confirmed by GPS fixes. In Ra's case this hasn't happened.

Lee's report also showed GPS fixes for Ahi and Kowhai still at Miranda after all. When I checked with Lee, she advised that the GPS fixes showed Kowhai and Ahi on the outside of the shellbank. 'So looks like they are fooling you guys!'

The next day Amanda investigated the far side of the shellbank and found no Kuriri. But when she returned on the 18th there were six PGPs out there, at least three with transmitters, identified as Kowhai, Ahi and JoJo. She suspected Whero was present too 'but the light was too low to be sure.'

So the birds hadn't flown. Having been the victim of such PGP games before, Amanda concluded resignedly, 'I'm guessing they've been up to some kind of shenanigans skipping around various roosts to play pranks on me.'

Lead scientist on the project, Wally Johnson, who was following all this from his home in the US, was fascinated. 'Hmm ... three ... possibly four of six hangers-on are tagged birds! Suggests that tags might be an impediment to departure?' That, he noted, is one of several questions about PGPs he hopes to answer with a new project, based in Hawaii, which is currently shelved because of the pandemic.

Tony and I also wondered whether JoJo's late departure might be a sign that he

arrived here from Tonga not long before he was first seen on 15 March and needed time to recover.

On the 19th Amanda went to the shellbank again and once more found six PGPs. She was able to identify Ahi and Whero and was fairly sure JoJo and Kowhai were there too.

That night Lee reported GPS fixes for Kikorangi, at Piako, and three from Whero, all from Miranda, but still nothing from further afield.

The following day, when Amanda checked, most of the shellbank gang had gone. Only Whero was there and we had been worried about her because as far back as 11 January Tony had noted the harness seemed loose and the tag was hanging at a 45-degree angle. But the next day even Whero had gone. Since then there have been no reports of PGPs at the reserve.

Amanda thought it likely all but Whero took off on the 19th, and that she finally left on the 20th to take advantage of the wind shifting from northwesterly to southerly. But, having been fooled by these birds before, Amanda quietly made her own migration to Rotorua, her season as Shoreguide having ended, and we all waited until the satellite tags told the same story.

Unfortunately that has taken a bit longer than expected. Publication of this magazine was held for two days because there was a good chance of the birds reporting on 9 May. But again nothing was heard and the tags have now moved to a longer reporting cycle.

•We'll be updating any news on our six tagged PGPs on the Shorebird Centre's Facebook page and in our eNewsletters.

Interesting questions for our six new explorers to answer

JoJo's arrival back at the Findlay Reserve after being tracked island-hopping down the Pacific, raises several interesting questions for this season's six tagged birds to answer, according to the world expert on Pacific Golden Plovers, Wally Johnson (at right).



Wally said catching six more Kuriri was a great achievement. 'I can attest to how wary and unpredictable they are.'

His tracking work has shown that plovers from Hawaii go nonstop to nesting grounds in Alaska, then return nonstop. But from farther south in the Pacific – Marshall Islands and Samoa – the PGPs 'stop in Japan to refuel while en route north in spring, then in autumn travel nonstop on a mid-Pacific route back to their winter quarters. Typically, returnees are very site-faithful and reoccupy their previous winter territories.'

Though the New Zealand sample last season was small, he said, the 'results are nonetheless significant and agree with most of the anticipated pattern' of going via Japan to Alaska. But one of the three (JoJo) was tracked on a mid-Pacific flight southward in fall and 'contra to our prediction of nonstop travel, stayed for lengthy periods on islands while en route to the Shorebird Centre. Signals from the other two birds ceased in Alaska and neither has been seen at Miranda.'

Those results, Wally said, were similar to his recent study tracking plovers from Moorea in French Polynesia. Like the New Zealand PGPs, the Moorea birds flew to Alaska via Japan. Then one of them was then tracked south to wintering grounds but was last heard from in Samoa not Moorea.

'All of this raises interesting questions: are plovers less site-faithful at the southern limits of their winter range in places like New Zealand and Moorea; given the very long passage in fall, does the burden of carrying a tag cause a bird to island-hop instead of flying nonstop; is loss of signals an indicator of tag-caused mortality; is failure of tags before fall migration the result of defects in micro-electronics or is it a matter of less than predicted battery life?'

Hopefully, he said, this season's six New Zealand plovers 'will shed light on some of these uncertainties, especially the site-faithfulness question.' 

Tracking progress along the Bar-tailed Godwit

Adrian Riegen reports on two international projects, one tracking adult Bar-tailed Godwits moving round the Yellow Sea, the other finding out what juvenile godwits do while they're hanging out in New Zealand.

This summer, 20 adult Bar-tailed Godwits were fitted with modern solar-powered satellite tags at Pūkorokoro Miranda. This project is a collaboration between Birds Canada, Birds New Zealand, Massey University, The Global Flyway Network, Chinese agencies including Fudan University, volunteers, and the Max Planck Institute.

When we used solar powered tags on male godwits way back in 2007-2008, they weighed 16g and looked like the birds were setting off on a hike with a backpack. They were not very successful and probably affected the aerodynamics of the birds. But now the tags weigh just 2 and 5g and sit so snugly on their backs that they are hidden much of the time

under a thin layer of feathers, great for the aerodynamics but not so good for charging the battery. However, when the birds are in flight they seem to get more sunlight on the panels and we have been getting great results from their migrations north along what looks like a godwit super highway (see the map below).

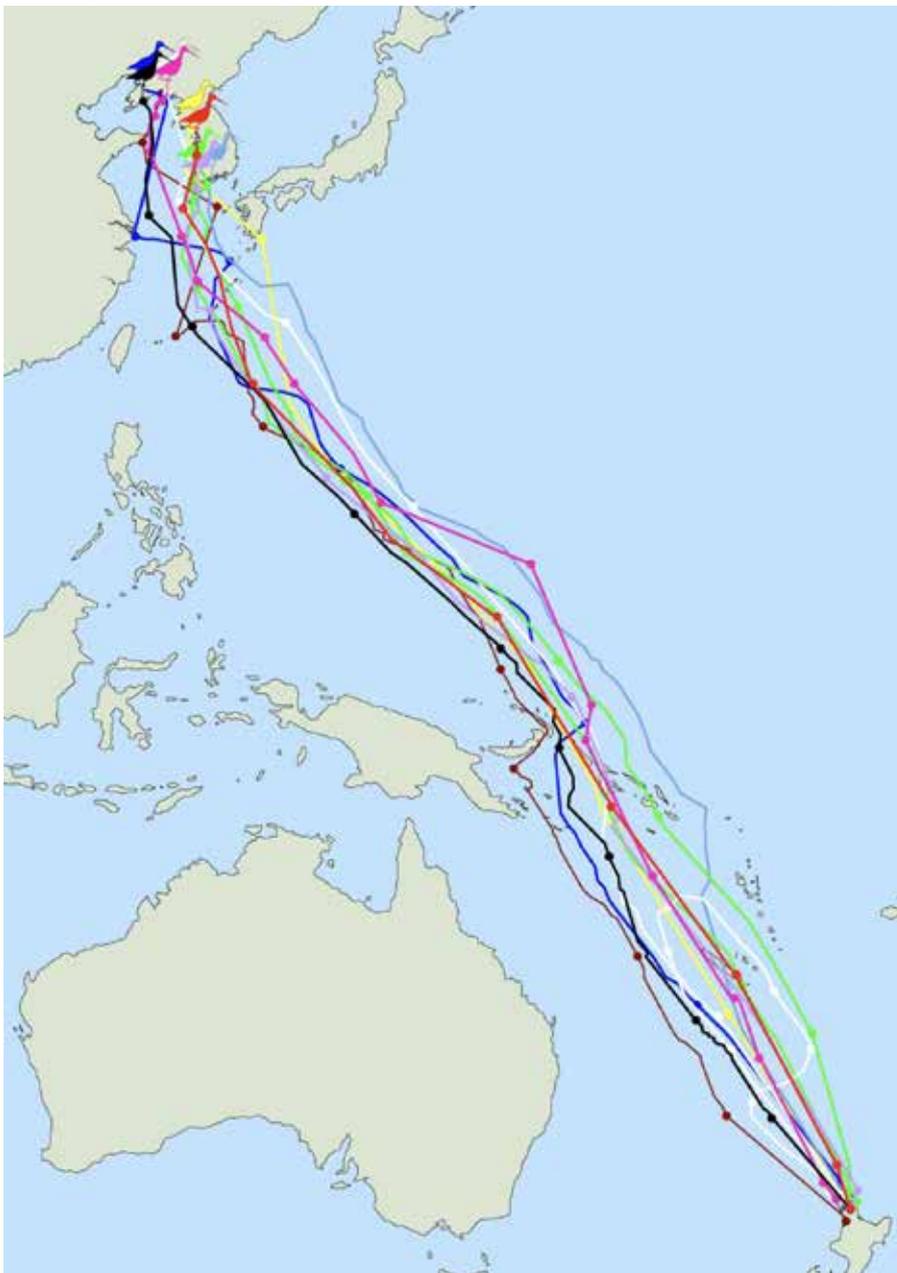
Sticking to the same route E7 and her cohorts took in 2007, they headed north and at the time of writing we know 14 have reached the Yellow Sea, and three of those are now in Alaska. One is refuelling on Okinawa, one appears to be stopped on another small Japanese island but has not transmitted for several weeks and four have not transmitted since February so we

don't know if they have left Pūkorokoro Miranda but we hope so.

The aim of the project, if the tags work for several years, is to see how the birds use the Yellow Sea and other staging sites in Asia. We know godwits tend to be very site faithful on migration and at non-breeding sites but with the degraded habitats in East Asia are they capable of moving around to find suitable food at other sites?

The 14 that made it to the Yellow Sea have been scattered along the south and west coast of the Korean Peninsula north to Yalu Jiang and one is on the Dalian Peninsula, southwest of Yalu Jiang. Two of these birds are worthy of further mention.

4BWRB doesn't quite have the ring of E7 but he set off on 24 March from Pūkorokoro Miranda for the standard 7-8 day flight to the Yellow Sea and arrived on 1 April at Aphaedo near Mokpo in South Korea. Some of you will remember hearing Andreas Kim, the expat German living in Mokpo, who spoke at the Centre a year or so back. Well, he was out at his usual wader haunt looking for godwits on 2 April and saw and photographed 4BWRB (see below). Great confirmation that the satellite tag was recording the bird's location accurately. Andreas has now seen 4BWRB regularly at Aphaedo



LONG HAUL CHAMPIONS: (at left) The godwit super highway to the Yellow Sea; (above) 4BWRB, newly arrived from New Zealand at Aphaedo in South Korea. Map / Adrian Riegen, photo / Andreas Kim.

super highway

along with a godwit from Foxton, another from Pūkoro Miranda and several others from Victoria and Queensland.

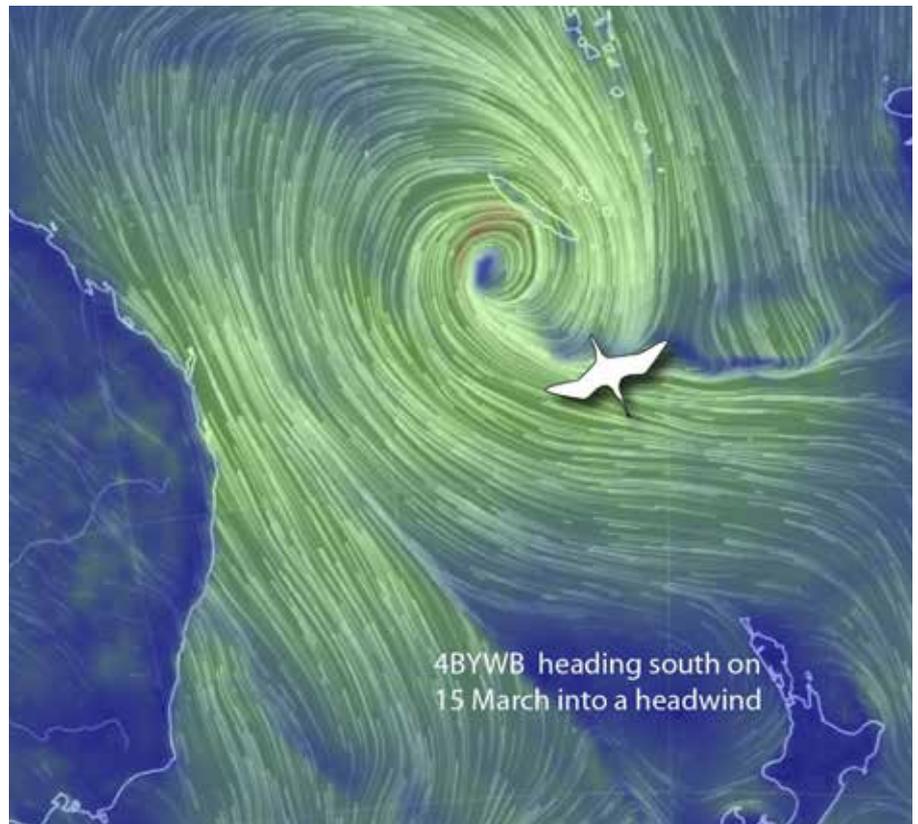
The other bird even more worthy of mention is the male 4BYWB, an early departing godwit, who uneventfully left the Firth of Thames on 10-11 March for the 7-8 day flight to Asia, presumably in a flock rather than alone. However, trouble was brewing ahead in the form of cyclone Gretel around New Caledonia, which was strong enough for him to question his decision to go hard and go early and so he and perhaps his travelling companions, looped round New Caledonia and headed south to arrive back at Pūkoro Miranda on 17 March, with 6,000km on the clock.

We thought he was done for the year and would sit out the breeding season on the beautiful shores of the Firth. Well what do we know? On 3 April he was off again, having only had 17 days to recover and refuel, but this time on a more typical flight to Asia, reaching the mudflats in southern South Korea on 10 April. He stayed there until about 16 April then flew to Yalu Jiang, arriving there on 18 April. Leg one of his migration was already the equivalent of the whole flight from New Zealand to Alaska. What will he do next?

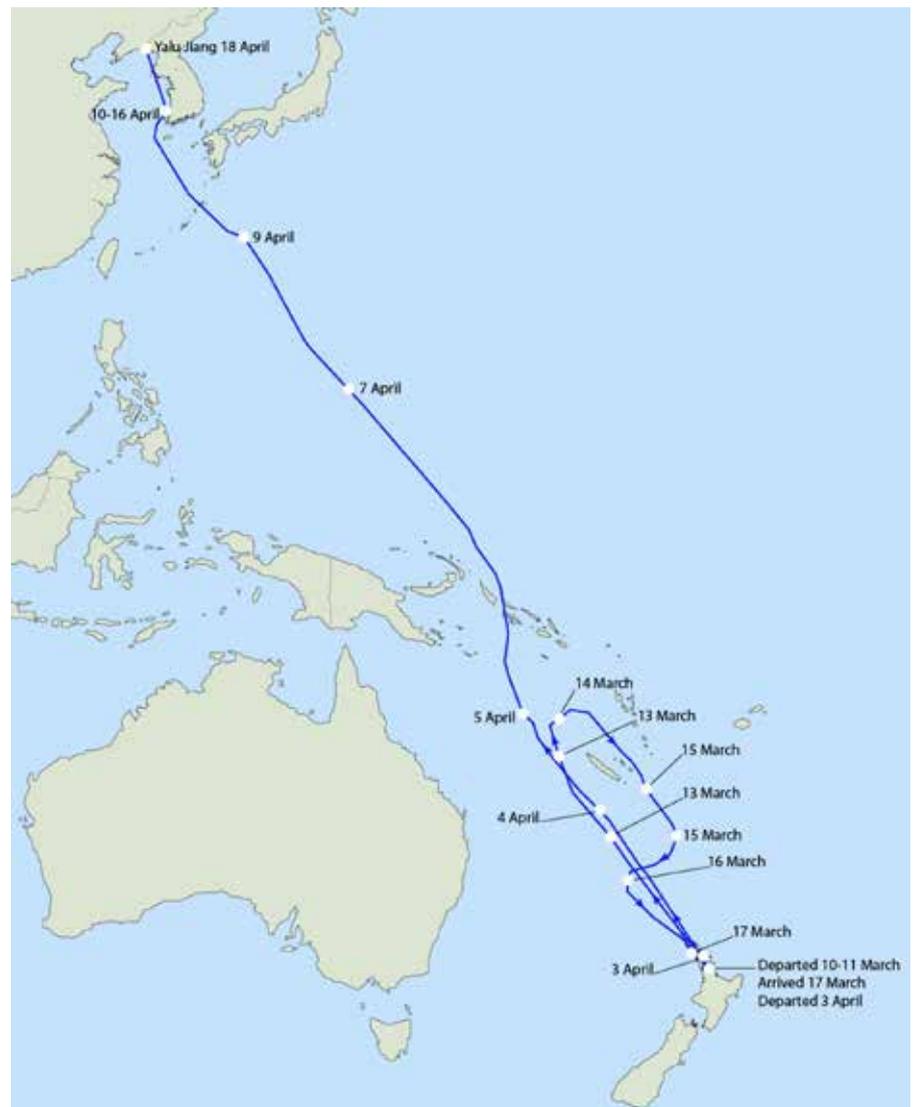
One of the three that have reached Alaska really did it the hard way (see the map on the next page). 4BBWY left Yalu Jiang on 24 April and headed east across the Korean Peninsula and Japan and out over the North Pacific. A northeast heading would have taken her to the Yukon-Kuskokwim Delta (YKD) in Alaska. But the winds were coming from the northwest and north and rather than fight them she continued east towards Oregon (where a banded godwit from NZ did turn up in 2017). Then the winds eased and it looked like British Columbia would be her destination. Instead, as she neared there, the winds helped her north, and after six days of flying and almost 10,000km, she made landfall on an island of Alaska's Inside Passage. After a few days rest she headed northwest up the Alaskan coast, toward Cook Inlet on which Anchorage sits, finally crossed that on 5 May and by 7 May was finally back on the YKD and a possible breeding site. The more I see what these birds endure on their migrations the more I am in awe of them.

Juvenile godwits

At the same time adult godwits were having satellite tags fitted so were 40 juveniles at Pūkoro Miranda and at



STAMINA: 4BYWB (top) runs into headwinds and (bottom) his circuitous route to Yalu Jiang. Maps / Adrian Riegen.





GOING HOME: Routes of the three adult godwits that have so far been tracked to Alaska. Maps / Adrian Riegen

Foxton. Fortunately it was easy to deploy so many transmitters on juveniles this summer, as there were unprecedented numbers all round New Zealand. Again fitted with solar-powered tags, we hope these show how they move around in the first 1-3 years they are in New Zealand and hopefully their first flight north as young adults. We expected to see these birds move around the country and very soon some were. One bird in particular 4RBWB threw all our ideas about juveniles out of the window. She was banded at Foxton in November 2019 and around 1 December flew to Lake Ellesmere near Christchurch, where she hung out for the summer. Lake Ellesmere is not a particularly favoured site for godwits but there she was until about 26 March when she flew northward. But not to check out a better site in the North Island. No, this flight took her way beyond Cape Reinga and out over the South Pacific, bound for New Caledonia, 2,500km from Lake Ellesmere. Not a bad effort for a bird that should have stayed in New Zealand. But I'll let Jesse Conklin pick up the story, as he has spent the past 12 years tracking northward migrations of individual godwits from Foxton Beach. This is an extract from a posting while he was waiting for evacuation back to his home in the Netherlands:

“I see that harebrained juvenile 4RBWB has just landed in New Caledonia. We were thinking: perfect. Now she has a chance to recover from this near-suicidal mistake and return at her leisure, maybe after a week or two of sun-drenched tropical island malingering. Of course, this is not what she did. Less than 12 hours after making land-fall, she took off southward, determined to fight the considerable southerly wind that had just brought her here. Ah well, only

1,800km to Northland!

Well, if she was aiming at Northland, her course was 500km too far west. I watched as she continued southward, thinking, is she going to miss New Zealand completely? Or drop from exhaustion in the Tasman, west of Farewell Spit? No, of course, we had underestimated godwits again. She handily reached the coast near the Fox Glacier, after a completely unnecessary over-water flight of 2,400 km. Then, instead of popping a bit north for a rest at Okarito, the nearest agreeable estuary, she instead went south,



TEENAGE TRAVELLER: 4RBWB's amazing journey.

sightseeing in Fjordland and around the southwest tip of New Zealand for another 500 gratuitous kilometers before finally stopping at Awarua – literally the furthest godwit site in New Zealand from New Caledonia. Why? Because she felt like it.

One might ask how a juvenile godwit, as likely as not to be still replacing flight feathers, nonchalantly flies 6,000km, with only the briefest of possible stops, having had no previous reason to prepare for such an endeavor. What does this tell us about the fuel loads that are supposedly necessary for such long-distance flights? The 15 marked juveniles I have been trapped with for the last three weeks don't appear to have more than 150g of fat among them.

The juvenile tracking project is about how young birds choose their eventual adult non-breeding sites, and now 4RBWB has seen more of New Zealand than any other. Bets on where she will settle? And for the adult project, we had originally intended to tag some of the southernmost godwits, in part to document what we think is the real longest-ever non-stop flight: Alaska to Southland. But due to logistics and bad bird behaviour, we failed to do so this time around. But, perhaps 4RBWB will help us out with this in a couple of years, with a fair bit of luck and patience. As long as she doesn't do anything really stupid in the meantime. Hmm.”

When E7 arrived back in the Firth of Thames in 2007 the world was in awe of her epic non-stop flight from Alaska and we wondered what else there was to learn about these birds that Keith dubbed ‘Long Haul Champions’. Well, 13 years on and we are still being blown away with what these remarkable birds get up to. Will we one day track a godwit flying non-stop from Alaska to Invercargill? 🐦



THE PEOPLE: The majority of the 2020 Northwest Australia Wader and Tern Expedition team outside The Shadehouse at Broome Bird Observatory
All photos / Chelsea Ralls

2,191 waders and terns - plus a plethora of passerines - caught and banded in 24 days

Chelsea Ralls reports on her 'invaluable and unforgettable experience' on the notoriously challenging Northwest Australia Wader and Tern Expedition.

I remember sitting quietly in the Stilt Hide at Pūkorokoro, waiting to cannon net Wrybills on the pond, listening to Gillian Vaughan regale us with adventures from an expedition catching and banding shorebirds in Broome, Northwest Australia. I was hooked. I wanted to go.

The next conversation I remember on the topic, after I was all signed up and past the point of no return, somebody asked Gillian if she would go again, 'Oh god no!' or something to that affect. I was left wondering what I'd gotten myself into.

Then there were all the Australian birders who came through the Centre that I told about my plans for joining the Northwest Australia Wader & Tern Expedition. You know you should prepare yourself when even the Aussies look at you like you're a bit mad. So, I asked for advice and started making a list – Bushman insect repellent (strongest you can get), wide brimmed hat (corks not necessary), long sleeves, long pants (in that heat? Ok, if you say so) and drink A LOT of water. But you're never completely prepared, and then you just have to make do.

The first expedition to Northwest Aus-

tralia was back in 1981, a part of the legacy of Clive Minton, who sadly and suddenly passed away last November. I'd been hearing stories about Clive for months; this wasn't going to be the same expedition without him. The delegation from China weren't going to make it either due to the Covid-19 pandemic. But thanks to the tenacious and dedicated team of Roz Jessop, Robert Bush (our expedition leader), Prue Wright and Marcel Klaassen (Deakin University), working right up to the last moment to get all the permits needed, the rest of us made it. And Clive was still there, he was in the stories people shared on our first night introducing themselves and telling everyone how they came to be there. He was the reason for almost every single one of us being there.

The purpose of the expedition has always been to advance the conservation of threatened waders and terns. By catching and banding these birds it's possible to study breeding success, migratory pathways and behaviours, then use this data to promote conservation policies locally and as part of the East Asian-Australasian Flyway. This year would also include sam-

pling for a larger study through Deakin University on avian influenza, a little understood threat to these birds.

We met together sitting around The Shadehouse at the Broome Bird Observatory (BBO). There was Adrian Riegen's familiar face, returning 30 years after his first expedition, and another 29 people there or coming and going over the next three weeks to meet and get to know. The Shadehouse was the meeting place: for small reprieves from the heat under the fans, an escape from the flies and mozzies that waited for you hungrily on the other side of the mesh, to share your daily sightings, for a debrief on the day's activities and to go through the plan for the following day. And to eat, and boy did we eat. This was the first year the expedition had its own caterer and Ash was first-class. I heard about the conditions of early expedition days, so the novelty of sometimes three-course dinners, special birthday celebrations and every other delicious meal we had prepared for us was never lost. My favourite, the cheesecake.

Day 1 - Arrival Day Friday 7 February. Not a lot on the agenda today, there would



THE BANDING: Adrian Riegen banding in the shade. Chelsea Ralls with a Black-tailed Godwit she has just banded.

be introductions and a brief for the following day later at The Shadehouse, but mainly we had it to ourselves. I was awake with the light of day, which isn't a sleep-in in these parts but was for someone whose body clock was five hours ahead. After familiarising myself with the BBO, the trails, the information boards, the buildings and the shop, I wandered down to the viewing platform with binoculars, scope, hat and drink bottle for high tide. Watching those first few flocks of birds on the shore and the groups arriving with the incoming tide I was grateful to Keith and all the other experts who'd taught me what to look for and how to identify these birds. There were those familiar and comfortable to me: the Bar-tailed Godwit, Pacific Golden Plover, Red Knot; those that I'd seen although rarely: Black-tailed Godwit, Grey Plover, Grey-tailed Tattler; and a new group, the ones that I knew almost nothing about, the lifers. And it wasn't a small list: Terek Sandpiper, Common Sandpiper, Greater Sand Plover, Lesser Sand plover, Gull-billed Tern with many more to come over the next few weeks. The one advantage to being a born-again-birder is that you can go to a new place, or even a place you've been before, and you see it through new eyes, you see so much for the first time. I was starting (almost) all over again with my shorebird identification. Sabine, from Austria, and I spent a number of hours there, peering alternatively down our scopes and through

her Australian Bird Guide trying to hone in our foreign eyes. And then the BBO's guides arrived, confirming some guesses, pointing out others we hadn't seen yet and answering our endless questions. I was on the other side of the guiding fence here. It was obvious after that first day sitting back at The Shadehouse watching the bush birds come in at twilight to wash the red pindan dust from their feathers in the bird baths (Peaceful Dove, Brown Honeyeater, Rainbow Bee-eater), that I was going to single-handedly support the BBO for the rest of my trip with my 50c contribution to the Bird Tax Jar for each lifer I saw.

Day 2 - The first half of the expedition was going to be based at 80 Mile Beach, 240km south west of the BBO along the Great Northern Highway, so we packed up our camp and all the cooking, banding, catching equipment for the next 11 nights and headed off in our convoy of utes and trailers to Anna Plains Station.

The Australasian Wader Studies Group has been coming here for many years so it was a welcome reception to a very special place. A working station with spaces for campervans in the dry season, the front doorstep is part of 220km of white sand coastline and gorgeous turquoise waters, rarely seen by humans. But it is one of, if not **the**, most important migration sites in the flyway, visited by hundreds of thousands of migrant birds every year. You can drive down this beach at high tide and come upon a flock of 10,000 birds

roosting, drive 500m and there's another flock, and another, and another.

Day 3 - The nine catching days at 80 Mile Beach all followed much the same formula. Up early for breakfast, pack lunch and find a space in one of the utes to drive 30 minutes across the station's dirt roads and over the sand dunes to the beach. Depending on the tide height we'd drive up to 20km along the beach avoiding the soft sand, to that day's catching spot. A quick site review to see where the tide was predicted to reach and then into teams. One to build the hide where Robert and a small team would later sit and direct the catch. The cannon netting team split into two, each setting a 20m cannon net about 90m to the north or south of the hide, judging angles and the environment for best placement, checking gear and doing our best artistic camouflage work, connecting cannons and testing the firing equipment. A third team erecting the keeping cages and a shade tent about 200m past one of the nets. This is where we would be based if we managed a catch and needed a place out of the unforgiving tropical heat to band and process the birds.

And then we wait. The team with Robert included two people calling the safety areas on the nets, one on the firing box, all shoe-horned into the small hide. The others were split up amongst the utes, half going a couple of kilometres north, the others south. Adrian led a team out daily with scopes across the sand and mudflats



THE HABITATS: (above) Planning a catch on 80-Mile Beach; (below) terns and pratincoles on the grasslands of Anna Plains Station.

on a flag sighting mission through the heat haze. Others would find the most comfortable spot in the shade of a ute and hopefully a breeze, to refuel, catch a couple of minutes shut eye or share stories.

As the birds start to come in with the tide you're faced with the impossibility of this situation: we're asking these growing flocks of up to 15,000 shorebirds, terns and gulls to sit in front of a 20m long net, but only in the safe zone we've marked, when they have 220km of beach to choose from. Time for the twinklers. In New Zealand that would be a couple of people maybe up to 200m away, but it's like Texas here, everything is big. The utes line up behind each other and head towards the nets. Robert directs them to move up closer based on how many birds are near the catching area, their behaviour, how far the tide is from the nets, or how close we are to firing. Every now and then it requires a gentle touch and Brenton must have walked almost 2km along the beach one day, pushing a flock in front of him to avoid the whole lot disappearing north like most of the others had done.

I was out there once too. With the tide not coming in as far as we had hoped someone needed to get into the water and move them inland. I tried not to let an overactive imagination conjure up sting-rays and sharks and at least I had about 30 pairs of eyes and binoculars trained in my direction to warn me of any danger.

Then we watch the birds patiently.

Watch the birds walk into the catch zone with the tide, walk out because of a bossy pair of oystercatchers, fly in from the twinklers' direction, 'Everyone get ready', fly out because of an incoming bird of prey, then circle and fly back, '3,2,1... wait, there's a bird in the danger zone', 'put just your head outside the hide and move that one bird', your heart is pounding and the adrenaline is racing, don't move until you hear fire....'3, 2, 1, FIRE!'

Drop everything in the sand, drive, run and get to the net as soon as you can. Make sure the birds aren't in the water and in danger. Don't let the birds escape. Hold down the edges of the net. Start extracting the birds into the carrying boxes, 'you're on sand plovers', 'who has a Great Knot box?'. It becomes a well-oiled machine even if it looks chaotic from the outside, everyone knows what needs to be done and we extract over 400 birds from a net in less than 10 minutes. We transfer them to the keeping cages, safe from the heat in a darkened quiet place and all take a breath.

A quick breath though, it's time to organise into teams and process the birds so we can release them as soon as possible. A scribe to document, a bander to attach its new metal bracelet, others to collect wing length, moult score, age, sex, bill length, weight, etc, and attach any coloured or engraved flags. They're all ferried to have samples taken for the avian influenza study if they're on that target species list, and to visit welfare to make sure the bird

is healthy, its bands and flags are secure so it can be released.

Safety and health of the birds is paramount, so it's easy to get lost in the rhythm of processing to release these wild animals. Every now and then I'd have a moment to think: here's a shorebird I'd never seen before, or rarely, and I was seeing/holding/banding and learning about it. Perhaps, it was due to depart on an epic voyage over thousands of kilometres. And what would this bird teach us? Where or when might it be seen again? Has it learnt today's lesson well enough to avoid being caught again? Might another future expedition hold it in their hand one day?

We caught birds on five of the nine catching days at 80 Mile Beach but that didn't mean we were sitting around idly if we didn't. You might be rostered for washing, dishes or meal prep; there's gear to clean and check; and there's always more birding (Grass Owl, Red-backed Fairy Wren). As the tides peaked later in the day mist nets were put up for passerine banding in the mornings (Mangrove Gerygone, Bar-shouldered Dove, Singing Honeyeater). We made entertaining plans to catch the cheeky characters who lived around us at camp. I think everyone was secretly hoping the old box-propped-up-on-a-stick trick would work baited with grasshoppers and toast crumbs. Those who didn't need any sleep tried spotlighting and chasing the Bush Stone Curlew. There were a couple of close calls but in the



THE SPECIES: (clockwise from left); Brown Honeyeater and Double-barred Finch; scorpion, Stimson's Python; Wedge-tailed Eagle; Brown Honeyeater; (centre) Mangrove Gerygone.

end it was the hand net, coordinated with a bit of bird herding in the marquee, which proved the downfall of one young, not yet expedition-savvy Pied Butcherbird.

Day 13 - We packed up our soggy camp and travelled back to the BBO. We'd been lucky since this was wet season to get this far without any rain. Some of us had taken the flies off our tents to keep cool at night. So that last night at the station, at the sound of those first few drops in the dark, we all grabbed our head torches and dragged out covers, zipped up tents and tried to get some sleep in the wind and rain, trying not to imagine our precious non-waterproof belongings floating away.

We had one more day off before the tides allowed us to start cannon-netting again and it wasn't wasted. It started early at Coconut Well, part of Helen Macarthur's property just outside Broome, where we caught 17 birds including a Mistletoe Bird and Shining Bronze Cuckoo, a Bearded Dragon and found a bowerbirds' bower. Most of the group had an extravagant expedition to town for a swim in the public pool, an ice-cream and lunch out. You really start to appreciate the small things. It's a strange experience being surrounded by so much water that would offer welcome relief from the heat but you're risking your life by dipping a toe in.

Cannon netting at Roebuck Bay for the second half of the expedition was a different routine and environment. Being so close the BBO we could go out to the

bay where we planned to catch the next day and choose the best hide position and maybe build a shade tent at the top of the cliff. It also brought some new challenges, hitting rock under a shallow layer of sand when trying to dig the cannons in, navigating steep and sometimes loose gravelly paths down to the bay, and birds who seem much more wary of our presence. There's no vehicle access on these bays so twinkling birds over from a neighbouring bay needed people scattered along the coast. Carrying all the gear up and down these cliffs in the heat felt like a CrossFit workout. We spent most of our time sweaty, sandy and dirty, grateful for a five-minute drive in an airconditioned ute.

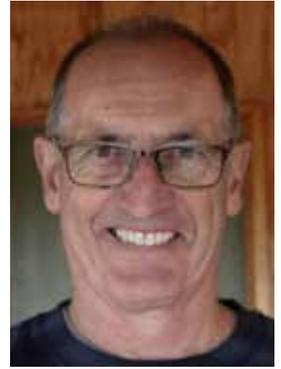
The planned nine days of catching at Roebuck Bay turned into a successful four catches with pesky Black Kites and other birds of prey foiling two of our plans and an impending storm bringing an early end to the expedition. One of the brief storms that passed by could make the roads from the BBO to Broome impassable, so a cyclone could keep us trapped for weeks. It was time to make for sealed roads and take up the very kind hospitality of Grace Maglio and Helen and Graeme Macarthur. There's no stopping birders though, there were daily explorations of the nearby birding spots and a maybe a stop in at the local pool. At Helen's we were lucky enough to have Dicky, a rescued Little Friarbird, to keep us company. He revelled in the attention and bustle of a crowd and

would sit on top of your head or shoulder and pick flies off you.

Now we could take a moment and reflect on a successful expedition. We had caught 2,191 waders and terns of 20 species, including 234 retraps (five had been banded in China or Russia) and had had over 1,000 flag and colour band sightings. A significant contribution to these studies, sure to teach us much in the short-term once the re-traps and sightings are reviewed and in the long-term as we keep contributing and collecting valuable information for this study.

Day 24 - Sunday 1 March. All too quickly it was time to say our goodbyes. I had that familiar feeling that I get when an Open Day or course at the Shorebird Centre ends, slight sadness but full of enthusiasm from being involved with such an inspiring group. What a community to be a part of. I'd learned more in these three weeks than I could from years of experience in New Zealand. Thanks to the Shorebird Centre and Adrian's generous support I had worked next to people happy to share their vast and varied knowledge, I had handled multiple new species and worked in a variety of conditions. This was an invaluable and unforgettable experience that I'll be sharing stories about for a lifetime. Would I recommend others going on it? Absolutely. And I would love to go again when, just like any experience that challenges, the memory of the struggle has faded slightly. 

Council focusses on fiscal issues while the birds keep flying



The Lockdown may be keeping us in our bubbles but modern technology allows the Council to meet and enables us to continue to track our migrating Bar-tailed Godwits and Pacific Golden Plovers, **writes William Perry.**

So, we cannot go a-birding, too far away from home. At the time of writing, we remain in Level 4 of Covid-19 Alert Status in Aotearoa New Zealand, a position that has been forced upon us by an organism that is at least 60 times smaller than one of the individual cells that make up a human being.

Lockdown is teaching us how to endure days and nights at home in our bubbles of one person or two persons or sometimes more. We are learning again how to cope with our own company or the company of small groups of people.

When we go outside, we must keep our distance from other people, not of our bubble, potentially deadly, potentially vulnerable. Therefore, we no longer drive our cars to locations that are good for birding and we must confine birding to our own localities. That reminds me that I must post to eBird the two Royal Spoonbills spotted recently on a Covid-19 walk with my bubble companion.

In the meantime, our planet still revolves on its axis every 24 hours and orbits the sun every 12 months and the tides flow, and the seasons change, and the migrants fly.

Our thoughts at this time are focused on our closest family and friends but one of the things that is different about our current circumstance compared with previous pandemics is the technology that links us to other people around the world.

Our devices and their connection to the world-wide web enable us to keep in touch with one another in a manner that has become possible only in the last two or three decades. The technology also enables us to follow the pathways flown by the migrating birds.

While we remain trapped in our bubbles, the birds fly on to their feeding stop-overs and onwards to their breeding grounds. Thanks to the efforts of a few enthusiastic people we can track the migrations of Bar-tailed Godwits and Pacific Golden Plovers and other species. So,

The Annual General Meeting of the Pūkoro Mirānda Naturalists' Trust has been postponed to 2pm on 28 June, subject to whatever health rules are in force at the time.

Please check the PMNT website, Facebook page or eNewsletter, or contact the Centre, closer to the time to confirm details.

watch this space. Check the progress of our birds on the PMNT Facebook page and website. We may be trapped in our bubbles, but the birds fly regardless

The Shorebird Centre is closed but the Council of PMNT continues to operate even while the lockdown prevents us from meeting face-to-face. PMNT Council member, Trudy Lane deserves special thanks here for facilitating recent meetings on a virtual platform (the internet). We were all at home in our respec-

tive bubbles and we managed to conduct a meaningful meeting through our electronic devices thanks to the technology managed by Trudy. Needless to say, the agenda was dominated by Covid-19 issues, but we had some lively discussions and made some decisions.

Ongoing discussions in the Council will inevitably be related to the current pandemic and its economic consequences. We must also address some fiscal issues that faced us even before Covid-19 emerged. And we must decide when we shall gather the membership together for a General Meeting to replace the AGM originally scheduled for 10 May.

Our next Council meeting is set for 10 May 2020 (to coincide with the AGM), but we are prepared to meet earlier if necessary and our deliberations will be influenced by the decisions made by the Government of Aotearoa New Zealand.

Stay safe and look after yourselves and one another.

Kia kaha, kia maia, kia manawanui.
William Perry



Minutes of the 44th Annual General Meeting of the Pūkorokoro Miranda Naturalists' Trust held at the Shorebird Centre on Sunday 26 May 2019 from 10am



PRESENT: Chair Will Perry, Secretary Trish Wells, Acting-Treasurer Ann Buckmaster and about 50 members

APOLOGIES: Kevin Vaughan, Janie Vaughan, Mike Hazel, Marie Ward, Virginia Graham, Mary Perwick, Sue and Ashley Reid. Apologies accepted (Will Perry/Bruce Postill). Chair Will Perry acknowledged Betty Seddon and previous chairs Stuart Chambers, David Lawrie and Gillian Vaughan who were present.

MINUTES of 2018 AGM were printed in *PM News*.

MATTERS ARISING:

Stuart Chambers raised the issue of the 'geriatric carpark' at the Stilt Pond. Once the rail trail was finished it might be a possibility.

CHAIRPERSON REPORT:

Published in *PM News*. A three-person delegation went to the DPRK. Vote of thanks to Council members who do so much work. Also, acknowledgements to our excellent employees and all the work of volunteers.

Chair's report received (Will Perry/John Rowe).

TREASURERS REPORT:

Presented by Ann Buckmaster on behalf of Kevin Vaughan. Details in *PM News*. Report is a public document and prepared according to Charities Commission Guidelines. It includes a statement of PMNT's purpose and achievements such as DPRK trip, Great Knot food drop, educator, visitor numbers, fantastic magazine, shoreguide, consulting with Living Water.

Main points from the accounts: increase in shop margin; income from subs, accommodation and courses about the same; donations vary according to appeals held; total \$239,320

Expenses \$274,129 compared with \$208,738 in 2017. Flyway costs of \$57,000 were partly offset by grants.

The life membership reserve is new and holds \$6,000. Employment costs have risen.

Gwenda Pulham asked about the cost of buying trackers for the PGP Project. These were bought before the offsetting grants came in. Deficit for the year \$34,809. Mainly due to employing the educator and not getting the usual grant to cover the cost of the shoreguide but both are very important roles. The Council is working hard to get employees funded externally. At this point the deficit is not a concern. We have reserves but will not carry on living beyond our means and there are things in the pipe-line.

Stuart Chambers was assured the Sibson Fund Reserve was still there and stands at \$40 000.

Other questions were raised about tax on interest, depreciation and the building fund.

Overall, the Auditors four-page report considers we are doing OK with regard to our financial position. Resolved that the accounts be approved (Ann Buckmaster/Chris Eagles).

Baker Tilly Staples Rodway are happy to continue as our auditors, Approved (Ann Buckmaster/Gillian Vaughan).

Thanks to Kevin Vaughan for preparing the accounts.

ELECTION OF OFFICERS

Secretary - Trish Wells elected unopposed.

Treasurer – Kevin Vaughan elected unopposed

Council Members (10) - Will Perry, Ray and Ann Buckmaster, Adrian Riegen, Gillian Vaughan, Jim Eagles, Bruce Postill, Trudy Lane, Wendy Hare and David Lawrie elected unopposed. Peter Madison and Estella Lee did not wish to stand again. The Chair will be elected by Council.

SUBSCRIPTIONS:

The Council proposed the following changes - Overseas Membership increase from \$65 to \$75; Life Memberships changed to \$2,500 for those under 65, \$1,000 for those \$65 and over, Individual and Family Memberships unchanged. Agreed (David Lawrie/Joy Gough).

GENERAL BUSINESS:

A questioner from the floor asked for the present membership numbers? Membership is currently 650-660, and dropping gradually.

Chris Thompson asked whether the Centre has its own audio system? Keith Woodley responded that there is an audio system and it is OK.

Ray Buckmaster spoke about the proposed tree planting on Saturday 8 June and advised that a grant request had been submitted to the DOC Community Fund.

Chris Thompson noted that \$72,000 had been received in grants last year. She suggested the meeting should acknowledge the work of those like Alister Harlow. A vote of thanks was carried by acclamation.

Stuart Chambers raised the issue of global warming and rising sea levels which could make the present building obsolete. He suggested consideration be given to moving the Centre to higher ground.

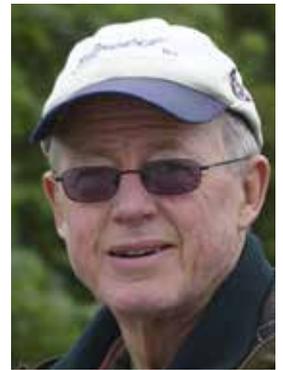
Keith Woodley said the whole of the chenier plain was low lying and Hauraki District Council was actively investigating the implications of the storm surge of last year. Everyone was mindful of the challenges.

Gillian Vaughan added that the whole coastal ecosystem was at risk and not just the building. Will Perry noted that if the mudflats and the birds were no longer there there was not much point having a building. There was a presentation to Jim Eagles for the work put in on the PGP Project

THE MEETING CLOSED AT 10.57am

Annual Accounts of the Pukorokoro Miranda Naturalists' Trust

For the year ended 31 December 2019



A tough year on the financial resources of the Trust. In a year when we have had good shop sales, done well with accommodation and courses and been well supported by members and grant providers we have managed to exceed our income by \$84,274.

Funds have been used in running the Centre, providing our magazine, education in schools, on field courses and on the shell banks, and in monitoring the birds locally, in the air and in foreign places.

There is no fat in our spending but the Trust is faced with tough choices. If we are unable to tap more funds from grant providers some of our core activities are at risk.

To end on a brighter note the launch of our appeal to replace the managers cottage has made a good start reaching over \$126,000 at the time of writing this.

Kevin Vaughan
Treasurer

Income and Expense Account

Income	
Shop Sales	89,370.71
Grants	69,651.66
Subs	24,999.48
Donations General	23,171.07
Accommodation	9,629.56
Field Courses	8,515.21
Interest	5,197.90
Land Lease	4,400.00
Tours Talks Lectures	3,517.36
Schools	2,444.08
Bequests	2,000.00
Other Income	750.76
Total Income	263,647.79

Operating Expenses

Employment Cost	120,363.39
Shop Purchases	46,665.99
Flyway Expenses	29,358.83
Maintenance Buildings	27,619.00
PGP project	23,318.30
Magazine Publication	18,867.85
Depreciation	15,847.17
Field Course Expenses	14,152.48
Education Expenses	7,008.82
Cleaning	6,478.62
Audit Exps	5,225.00
Signage	5,121.00
Insurance	4,809.66
Power Electricity	3,707.67
Restoration Project	3,690.65
Credit Card & Paypal Fees	2,721.44
Life Members Reserve Adjustment	2,550.00
Publicity	2,195.22
Rates	2,004.06
Other Expenses	6,216.95
Total Operating Expenses	347,922.10

Excess of Spending over Income **-84,274.31**

Balance Sheet

Current Assets

Cash	4,548.50
Bank	241,898.59
Inventory	39,461.00
Total Current Assets	285,908.09

Fixed Assets

Land & Building Revaluation	932,591.00
Land	693,909.00
Buildings	283,709.60
Plant & Equipment	73,632.87
Furniture & Fixtures	22,317.62
Depreciation	-216,229.26
Total Fixed Assets	1,789,930.83
Total Assets	2,075,838.92

Liabilities

Accounts Payable	774.22
Accruals & Provisions	36,004.22
Grants Unspent	22,761.57
Unspent Mgr Roost Fund	73,174.00
Total Liabilities	32,714.01

Net Assets **943,124.91**

Equity

Sibson Reserve	40,000.00
Life Members Reserve	68,000.00
Retained Earnings	986,808.22
Revaluation Reserves	932,591.00
Current Year Earnings	-84,274.31
Total Equity	943,124.91

GODWIT TIMES

Kia Ora

I was recently sent this story by one of my friends and thought I would share it with you.

Kia Kaha

Godfrey Godwit



Once upon a time, a long, long, long time ago a planet was born. She became known by many names but we will call her Earth.

Through the ages planet Earth went through many changes, including growing gardens containing different types of beings in all shapes and sizes, and in all the colours of the rainbow. Over time the gardens and their inhabitants changed with new beings emerging and others disappearing.

Finally there came a time when planet Earth was covered by blue seas, where whales and walrus swam, seaweed and seagrass swayed and sharks and swordfish schooled; clear skies where birds and bees flew; grass-covered plains where antelope grazed and lions roared; and green forests where monkeys swung through the trees and ants built empires under the earth.

Then one day, humans stepped out of the forest and began to change things. Of all that had been born on the Earth these were the brightest and the bravest of beings and they called her names filled with love like Papatuanuku, Pachamama, and Mother Earth. At first, like all good mothers, the Earth watched these humans play and learn, building and inventing and living in harmony with her other creations. As time passed by it seemed like the more the humans learnt the less they understood until they became selfish and stopped living in harmony with Mother Earth's garden.

The Earth tried to teach her children right from wrong; to show her people that their actions were flooding the oceans with plastics and poisons so that there was nowhere safe for the fish to swim; filling the skies with smoke and pollutants so that the birds and bees were disappearing; burning the grass covered plains, toppling the forests and killing the garden of Earth. But too many of the people would not listen.

So Mother Earth delivered a consequence to her misbehaving children for their selfish actions and gave rise to a virus that they called CoVid19. As this virus spread around the world 100s and 1000s of humans began to die. As people hid in their homes with fear the pollutants in the oceans and skies began to clear and turn blue again and the garden of Earth stopped dying.

Pūkorooro Miranda Naturalists' Trust



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Magazine

Pūkorooro Miranda Naturalists' Trust publishes Pūkorooro Miranda News four times a year to keep members in touch and provide news of events at the Shorebird Centre, the Hauraki Gulf and the East Asian-Australasian Flyway. No material may be reproduced without permission.

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See the birds

Situated on the Firth of Thames between Kaiāua and the Miranda Hot Pools, the Pūkorooro Miranda Shorebird Centre provides a base for birders right where the birds are. The best time to see the birds is two to three hours either side of high tide, especially around new and full moons. The Miranda high tide is 30 minutes before the Auckland (Waitemata) tide. Drop in to investigate, or come and stay a night or two.

Budget accommodation

The Shorebird Centre has bunkrooms for hire and two self-contained units: Bunks cost \$20 per night for members and \$35 for non-members. Self-contained units are \$90 for members and \$130 for non-members. For further information contact the Shorebird Centre.

Become a member

Membership of the Trust costs \$50 a year for individuals, \$60 for families and \$75 for those living overseas. Life memberships are \$2500 for those under 65 and \$1000 for those 65 and over.

As well as supporting the work of the Trust, members get four issues of PMNT News a year, discounts on accommodation, invitations to events and the opportunity to join in decisionmaking through the annual meeting.

You can join at the Centre or by going to our webpage (www.shorebirds.org.nz) and paying a subscription via Paypal, by direct credit or by posting a cheque. Contact admin@shorebirds.org.nz for further information.

Bequests

Remember the Pūkorooro Miranda Naturalists' Trust in your will and assist its vital work for migratory shorebirds. For further information contact the Shorebird Centre.

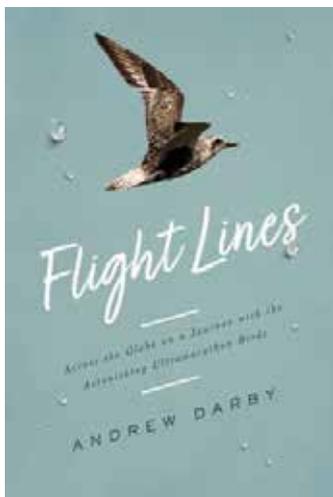
Become a Volunteer

There's always a need for volunteers to do a variety of jobs including helping with the shop, guiding school groups, meeting visitors at the hide, working in the Centre garden, joining in the restoration project at the Findlay Reserve, helping with the Shorebird Census and lots more. If you're interested have a chat with Keith or Chelsea at the Centre to see what will best suit you.

PMNT's work is made possible by the generous support of our sponsors

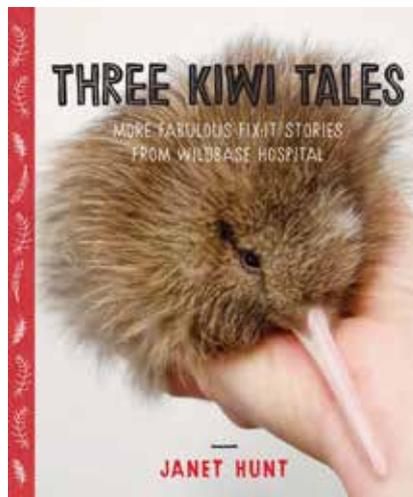


Looking for something fresh and fascinating to read? The Shorebird Centre has New Zealand's finest collection of nature books and our online shop is open for business



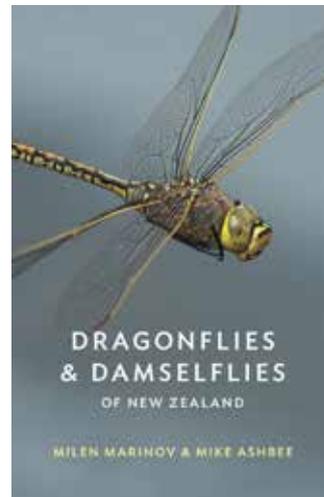
Flight Lines, by Andrew Darby (Allen & Unwin) \$37.90

Writer Andrew Darby, who previously knew nothing about migratory birds, follows the odysseys of two Grey Plovers, as they make marathon flights from the south coast of Australia to their Arctic breeding grounds.



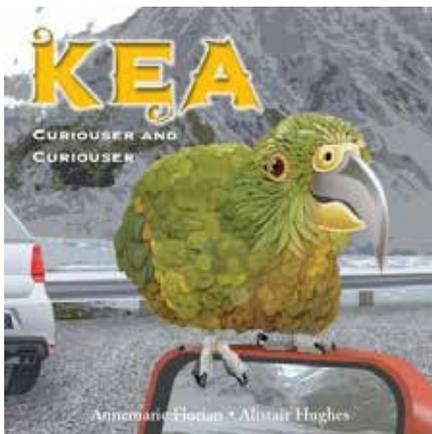
Three Kiwi Tales: more fabulous fix-it tales from Wildbase Hospital, by Janet Hunt (Massey University Press) \$24.90

Touching stories of special people treating very special animals from the remarkable Wildbase Hospital in Palmerston North.



Dragonflies & Damselflies by Milen Marinov and Mike Ashbee (Auckland University Press) \$49.90

A marvellously illustrated natural history and field guide to New Zealand's stunningly beautiful dragonflies and damselflies and their 325 million year history.



Kea: Curiouser and curiouser, by Annemarie Florian and Alistair Hughes (Auckland University Press) \$26.90

A delightful book for young readers about the charming and intelligent Kea, the only parrot in the world that lives in alpine areas, and one that faces increasing threats to its survival.



Operation Nest Egg Chick, by Maria Gill and Bruce Potter (Long White Cloud Books) \$24.90

The dramatic tale of the battle for survival of a kiwi chick, laid in the wild but raised by a Kiwi Centre, that both informs and entertains. Will it survive the predators? What programme is helping it? Why is the kiwi so important? How can we help?

The Shorebird Centre has re-opened and the shop is ready for business. If you can't get down to Pūkorokoro Miranda you can always visit our online shop at shop.miranda-shorebird.org.nz or ring 09 232 2781.