

Pūkorooro Miranda News

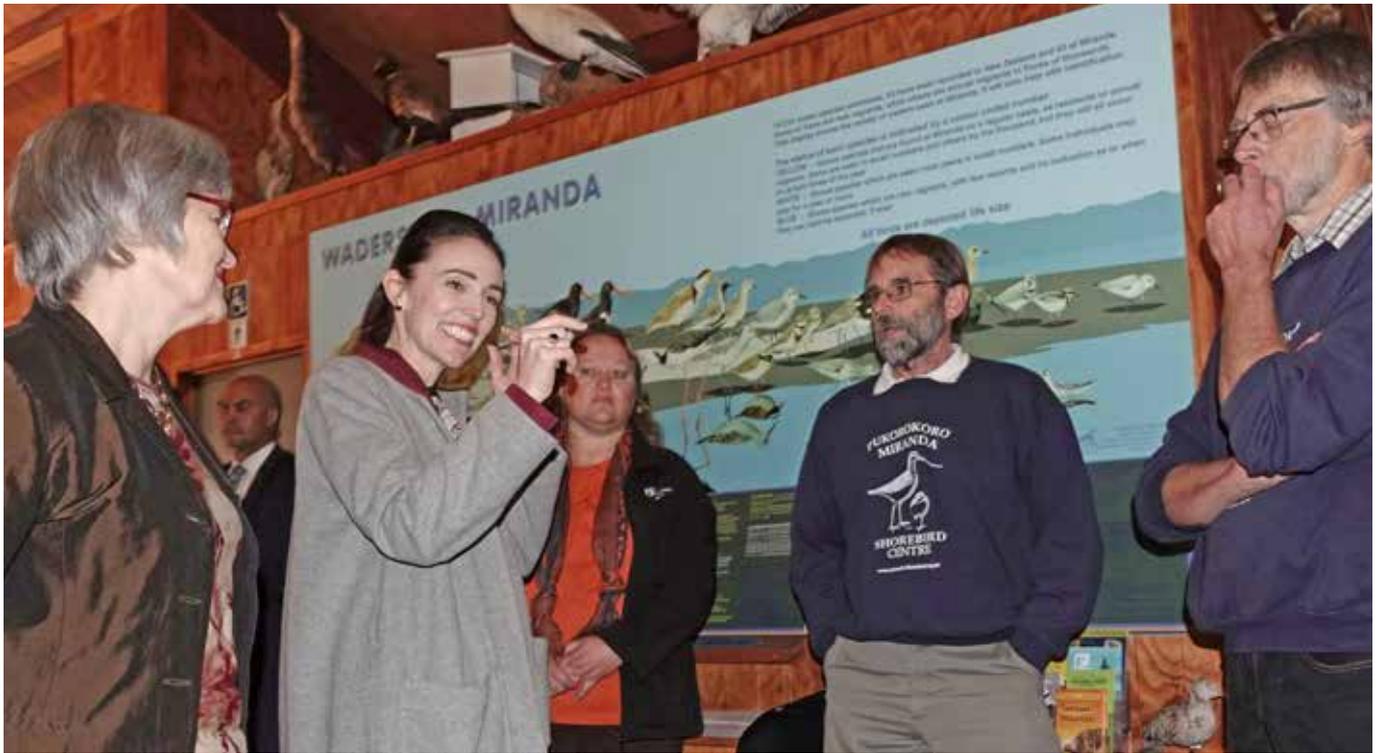
Journal of the Pūkorooro Miranda Naturalists' Trust

August 2019 Issue 113

Prime Minister: I'll be a voice for Shorebirds



Kuriri shock: JoJo's a boy and Jim's a girl
Big steps taken to restore coastal habitat



FROM THE TOP: Prime Minister Jacinda Ardern has a question for Adrian Riegen.

Photos / Jim Eagles

PM praises Shorebird Centre's work

Prime Minister Jacinda Ardern has heaped praise on the work done by the Shorebird Centre and its volunteers and promised to act as a voice for migratory shorebirds on the international scene.

The comments came when Ms Ardern and Conservation Minister Eugenie Sage visited the Centre last month to celebrate the announcement by UNESCO that key shorebird sites around the Yellow Sea are to be given World Heritage status.

While there they had a briefing from manager Keith Woodley and banding committee chair Adrian Riegen on the Centre's work, particularly protecting shorebird stopover sites on the Yellow Sea, but also on the need to safeguard our own habitats such as the braided rivers where Wrybill breed. Both Ministers paid close attention to what Keith and Adrian had to say, asked several questions and promptly took up several of the points raised.

For instance, Adrian mentioned that our work in North Korea had been made possible by the intervention of Winston Peters, during his previous stint as Minister for Foreign Affairs, and added 'We'd like to express our gratitude but haven't been able to make contact.' Ms Ardern nodded and replied with a smile, 'I'll have a word with the Deputy Prime Minister.'

Similarly, when Keith emphasised how much our work in China had been assisted by Government support in recent years, particularly going to China with the Director-General of Conservation Lou Sanson and getting the enthusiastic support of Ambassador Clare Fearnley on the latest trips, the Prime Minister again nodded and undertook to make migratory shorebirds part of the agenda for bilateral meetings with China.

Before leaving she also made a brief unscheduled speech in which she said, 'You have my word that when I get the opportunity I am happy to continue the diplomacy you've been undertaking. Because what are those diplomatic links for if it's not to advocate for our people but also to act as guardians and demonstrate kaitiakitanga to the birdlife that call New Zealand part of their migratory routes.'

As Keith commented later, 'Potentially this could be hugely significant in helping lock in protection measures currently being considered in China.'

In her closing speech the Prime Minister also praised the work by the Centre and its volunteers to preserve our local and migratory shorebirds. 'You are,' she said, 'creating an environment where the next generation will feel motivated to continue

the conservation work that you are doing not just here but globally.'

Earlier, when Jim Eagles spoke briefly on the Centre's role educating the next generation of conservationists, and the huge success of The Flock Project in taking the message about shorebirds to schoolchildren, both Ms Ardern and Ms Sage happily agreed to sign a couple of birds for the upcoming Tauranga Flock.

The Prime Minister wrote on her godwit, 'We all have a duty of care for these special birds' and Ms Sage wrote, 'Tumanako!' or 'hope'.

Tauranga-based Labour list MP Jan Tinetti, who accompanied the ministers, also signed a bird and afterwards arranged to meet up with educator Alex Eagles Tully, who is organising the Tauranga Flock, to offer support for the project.

One highlight came when Keith presented a copy of his book *GODWITS: Longhaul Champions* – which PMNT has reprinted – to an obviously delighted Prime Minister who spent some time flicking through the pages and discussing points with him and her Conservation Minister. She showed special interest in images from the Yellow Sea.

Towards the end there was a brief press conference where the Ministers answered

COVER: Conservation Minister Eugenie Sage and Prime Minister Jacinda Ardern listen attentively to Keith Woodley's briefing on shorebirds. Photo by Jim Eagles



ALL SMILES: (from left) Jacinda Ardern signs birds for the Tauranga Flock; the Prime Minister and her Minister for Conservation Eugenie Sage enjoy looking through Keith Woodley's book on godwits.

questions about the death penalty, making Te Reo compulsory in schools, and Government social policy as well as shorebirds. When asked about the cricket, the Prime Minister revealed she had ended up watching most of the World Cup final. 'Can't you tell?' she asked.

Ms Sage, a lifelong conservationist, spoke about the decision by UNESCO's World Heritage Committee that parts of China's Yellow Sea and the sanctuaries used by migratory birds should become World Heritage sites. This, she said, would pave the way for greater protection of key stopover sites such as Yalu Jiang and the Tangshan area of Bohai Bay used by New Zealand's Bar-tailed Godwits and Red Knots in their 15,000km journey to their Arctic breeding grounds.

But the Minister also mentioned efforts to protect shorebird habitat in New Zealand. 'Equally important is the work being done on this side of the Pacific.

'The recent acquisition of the Robert Findlay Wildlife Reserve at Miranda was a significant local contribution to the conservation of migratory shorebird habitat in New Zealand,' she said. 'The reserve incorporates two of the most important high tide roosts for shorebirds in the Firth of Thames. Its creation is a real credit to the Pukorokoro Miranda Naturalists' Trust, Waikato Regional Council and Foundation North.'

Like the Prime Minister she praised PMNT's advocacy role. 'The Trust's ongoing

commitment to promoting awareness of coastal ecology and advocacy for shorebirds and their habitats is particularly significant.'

As well as being briefed by the Trust, the two Ministers also used their visit to the Centre to meet with representatives of Living Water, the DOC Fonterra partnership, to hear about the work being done to rehabilitate catchments in the Western Firth and the creation of the new Repo ki Pukorokoro wetland reserve.

In addition, Gary and Adrienne Dalton, who have been key players in the RkP project, spoke about their Te Whangai Trust, which has taught life-skills to hundreds of young people as well as raising

native plants for conservation projects.

The ministerial party was welcomed to Pukorokoro by Hau Rawiri from Ngati Paoa, who is also DOC Pou Tairangahau or iwi relations manager for Auckland, John Linstead from Ngati Hako, Liane Ngamane from Ngati Tamatera and Apanui Skipper, Pou Tairangahau for Hauraki-Waikato-Taranaki.

As PMNT chair William Perry said afterwards, it was 'a brilliant day' which forged some important links with the highest levels of Government that can only help our work. It also resulted in some great publicity for the Centre on TV3, Maori TV and the *Stuff* and *Herald* websites among others. 

What's on at the Shorebird Centre

10 August, Winter Pot Luck Dinner

10am-2pm Working Bee; 3pm High Tide; 6pm Dinner and part one of the documentary *The Flight of the Kuriri: the story of PMNT's Pacific Golden Plover Project*, by Johan Kok.

11 August and 14 September

Weeding on the shellbank. Contact the Centre for details.

10-12 September, NZ Dotterel Management Course

14-22 September

The Flock Tauranga, featuring birds painted by local schools, will be held in Tauranga's Memorial Park during Conservation Week.

4-6 October, Nature Journalling Course with Sandra Morris.

Details from the Centre or our website.

20 October, Welcome to the Birds

Biz Bell will talk about Black Petrels in the Hauraki Gulf.



READY FOR THE BIRDS: 18 enthusiastic weeders turned out for the first in a planned series of three expeditions to the shellbank, organised by Centre assistant Chelsea Ralls, aimed at clearing off unwanted vegetation to make the area more bird-friendly. Further weeding efforts will be made on 11 August and on 14 September when those who enjoy getting muddy can opt for mangrove removal instead. Photo / Jim Eagles

Shorebird Snippets

Cycle trail to bring thousands of extra visitors

Work has finally started on the 10km Pūkoro-koro-Miranda to Kaiua leg of the Hauraki Cycle Trail which has the potential to bring thousands more visitors to the Shorebird Centre and has huge implications for the way we operate.

Diane Drummond, CEO of Hauraki Rail Trail Charitable Trust, attended the latest meeting of the PMNT Council to update us on progress and discuss the possible impact.

She explained that construction of the section running past the Centre had been delayed due to native lizards being found along a 2km stretch. But a lizard management plan was now in place, allowing work to get underway, and it was expected to be completed early in the new year. At the same time repairs will be carried out to part of the Kopu to Pūkoro-koro section of the trail which runs along a stopbank damaged in last year's tidal surge. The plan is to get the work near the Findlay Reserve and the Shorebird Centre done first so it is finished before nesting starts.

It is hoped that before the trail is complete there will also be a toilet installed adjacent to the Findlay Reserve car park and, in fact, manager Keith Woodley recently had a site meeting with Hauraki District Council to finalise where it should be placed.

Diane said experience at other parts of the Hauraki Trail indicated that the Shorebird Centre could expect a significant increase in visitor numbers. She estimated there would be 10,000-15,000 cyclists using the new trail by next year and pointed out that the very popular Karangahake Gorge section had more like 100,000 'so there will be a lot more people going past your door.'

This has had a big impact on local businesses with one cafe being told to expect 35,000 patrons in the first year but actually getting about 120,000 patrons through the door, she said. 'The cafe had to increase staff from two to a summer staffing of 15.'

She suggested PMNT should look at gearing up for the extra numbers by, for instance, providing longterm parking areas in the Centre grounds and upgrading toilet facilities, as well as looking for ways to generate additional income.

The trail will finish just north of Kaiua, near the giant statue of an oystercatcher, where a car park, freedom camping area and toilets will be built with the aid of an \$80,000 grant from the Tourism Infrastructure Fund and a \$10,000 donation from the NZ Motor Caravan Association. Diane offered to help the Trust apply for similar grants.

Since that meeting Keith has reported a big increase in both cyclists and the number of cars carrying bikes. 'It seems a new app has come out listing us as a temporary trail head – which is the first we've heard of it – and as a result we're getting a lot of people come here wanting to do the trail and it's getting more all the time.'

Chair re-elected

William Perry has been re-elected for a second term as chair of the Pūkoro-koro Miranda Naturalists' Trust.

At the AGM in May, members elected him plus Adrian Riegen, Gillian Vaughan, Ray and Ann Buckmaster, David Lawrie, Bruce Postill, Jim Eagles, Trudy Lane and Wendy Hare to fill the 10 positions on Council. Trish Wells was re-elected as secretary and Kevin Vaughan as treasurer.

At the subsequent Council meeting William was the unanimous choice as chair.

Subscriptions

The AGM agreed to tweak the subscriptions. Family and individual memberships will stay at \$60. But due to the increased cost of posting the magazine abroad overseas memberships will rise to \$75 (though the Council is looking at the possibility of offering overseas members a digital

version of the magazine). Also, following some actuarial calculations by the treasurer, life memberships will in future be offered at \$1000 for those 65 and over, and \$2500 for those under 65.

Volunteers welcome

Centre assistant Chelsea Ralls is setting up a system whereby regular volunteers sign up to take responsibility for particular jobs at the Centre.

These include tasks such as flattening cardboard boxes and if possible taking them to the recycling centre, tidying the linen cupboard, cleaning out the gutters, removing rubbish from the roadside, removing weeds from around new plantings in the Centre grounds, filling in potholes in the driveways at both the Centre and the hide car park, chopping fennel in front of the hides and removing weeds around the new planting at the Findlay Reserve.

Several people have already signed up and regular monthly volunteer days may be organised to create a social occasion.

There are plenty of jobs to be done so anyone interested in joining in should contact Chelsea at admin@shorebirds.co.nz or 09 232 2781.

New signs

A long-awaited set of new signs will shortly be installed in the Findlay Reserve thanks to a \$5,000 grant from the Len Reynolds Trust. The signs, beautifully designed by Council member Trudy Lane, include information about the birds and the way we would like visitors to behave.



Maintenance work

Much badly-needed maintenance is being carried out on the Centre under the guidance of the Building Committee.

Thanks to a \$17,206 grant from the Chisholm Whitney Charitable Trust the bathrooms in the two self-contained accommodation units will be completely remodelled. Next, committee chair Ann Buckmaster is keen to move on to remodel the two public bathrooms.

While the tradesmen are at the Centre

the plan is to also put flow restricters on the taps in the public bathrooms, wire in a donated stove in the kitchen and move the main water pump to a new platform aimed at keeping it above future floods. It is also intended to repair the women's bathroom and soundproof the wall with the Curlew room, replace two hot water cylinders under the centre with a larger one in the Sandpiper unit and lift the kitchen heat pump further above ground.

Earlier, volunteer builders Adrian Riegen and Peter Fryer braved appalling weather to fix a roof leak in the women's bathroom.

In addition work has been carried out on a mysterious problem which was reducing the amount of water in the tanks. Various repairs including replacing a faulty pump, fixing a leaky pipe and cleaning the roof gutters seem to have resolved the situation.

Must-see destination

A Destination Coromandel tourism workshop has decided that the Shorebird Centre should be promoted as one of two must-visit places for people heading for the Coromandel.

Agreement with China

New Zealand and China have updated



BACK FROM THE BRINK: Guest speaker at the AGM was Mick Clout, chair of the Kakapo Recovery Group, who gave a fascinating talk on how intensive and innovative management has brought this unique flightless parrot from a low point in 1989 of 40 birds, only a quarter of them females, to probably 200 today. Photo / Jim Eagles

BILLBOARD: PMNT and the Year of the Wrybill got an unexpected boost when Te Papa launched its \$12 million Nature Zone exhibition. Most stories featured Alan Tennyson, curator of invertebrates, wearing one of our t-shirts.

Moa emerges from shadows

\$12 million nature zone revamp ushers in next generation of Te Papa experience

1200 visitors have displayed

140m the value of the exhibition is a 140-million-year-old giant dinosaur - a partial skeleton of a bird

40 There will be more than 40 physical and digital interactive displays

9m The most part of the nature zone is in the

60+ Businesses/organizations collaborating on this exhibition 60+ and more than 100 individuals

\$12m exhibition cost

18.5m People who visited the old nature zone

1.3m Visitors of the old nature zone



IMPRESSIVE TRIO: These three Far Eastern Curlews were actually photographed at Kidd's on the Manukau Harbour. But another trio of our largest migrants has been seen regularly at the Piako River roost and more recently in front of the Godwit Hide at Pūkorokoro. Photo / Ian Southey

the Memorandum of Arrangement on shorebird conservation that was signed at the Shorebird Centre three years ago.

Conservation Minister Eugenie Sage signed the new document with Zhang Jianlong, administrator of the National Forestry and Grassland Administration of China, which now has responsibility for such matters. As well as reflecting changes in the structure of China's conservation bureaucracy, the new memorandum reaffirms the importance of working together to protect migratory shorebirds in China and New Zealand.

It focusses particularly on the exchange of information and development of strategies to advance conservation of migratory shorebirds and their habitats.

Educator's report

Not many schools visit the Centre at this time of year so educator Alex Eagles-Tully is putting her emphasis on holding a Tauranga Flock – similar to the highly successful Devonport Flock held three years ago.

Tauranga City Council has given her permission to hold The Flock 2019 event at Memorial Park in Tauranga during Conservation Week which this year is 14-22 September.

'I already have over 1000 birds painted or at schools waiting to be painted in the first few weeks of this coming term,' she says. 'I will be busy throughout The Flock week, with different schools due to visit throughout that period, so any offers of help would be greatly appreciated.'

If you'd like to help Alex can be con-

tacted at educator@shorebirds.org.nz or 027 892 2560.

Mangrove consent

A few years ago, Waikato Regional Council granted PMNT a resource consent to remove mangrove seedlings from the bay in front of the hides to maintain the area as roosting and foraging habitat.

The Regional Council charges an annual administration fee for the duration of a consent, and as ours is due to run for 15 years and the fee is \$500, the cost is significant. However, the good news is that the Council has accepted our request to have the fee remitted, based on our charitable status and the role we play in the community.

Far Eastern Curlew

In the May issue of *PM News* three Far Eastern Curlew were included in the impressive roll call of species recorded at the Piako River roost.

Plumage patterns suggested they were likely to be juvenile birds. The fact they remained long after the last of the other migrants had left in April seems to corroborate that.

In mid-July they moved camp and were being seen regularly in front of the Godwit Hide. If they hang around it will be a great opportunity for people to see these impressive birds.

Far Eastern Curlew are one of the most threatened populations in our flyway. PMNT surveys in North Korea have identified numerous sites of international importance based on our counts for this species. 

Recent sightings at Pūkorokoro

Arctic Migrants

440	Bar-tailed Godwit
100	Red Knot
3	Far Eastern Curlew
1	Black-tailed Godwit

New Zealand species

2000	Wrybill
5140	SI Pied Oystercatcher
162	Banded Dotterel
36	Royal Spoonbill
20	Caspian Tern
8	Variable Oystercatcher
2	Black-fronted Dotterel
1	Kotuku

Australasian Shoveler

Banded Rail

Hybrid Black Stilt

Pied Stilt

White-fronted Tern

Estella Lee's huge contribution to links with China

After 12 years as a member of the PMNT Council, Estella Lee has stepped down. **Keith Woodley** pays tribute to her vital contribution to the Trust's relationship with China and the local Chinese community.

In 1999 as part of a confidence and supply agreement with Labour, the Green Party negotiated a substantial increase in funding for the Department of Conservation, much of it aimed at increasing community involvement with conservation. One organisation born of this is the Chinese Conservation Education Trust (CCET).

Founder and chairperson Estella Lee has since been instrumental in helping to bring conservation messages to Auckland's Chinese communities. She is well-known in those communities, both through her regular radio broadcasts and newspaper columns and an enormous amount of community work.

One of her methods is to organise busloads of people to visit Pūkoro Mirānda. I met Estella during the first of what has proved to be many visits, and there have been a good many visits, which are invariably enjoyable (for one thing, Estella has become adept at translating my jokes into Mandarin).

On one memorable occasion we were all out on the shoreline, about where the Wrybill Hide is today, when lunch arrived in the form of individual parcels of Kaiaua fish and chips. It was quite the scene, 40 or so people seated in a line along the edge of the bank, each with their own bundle of newspaper. The birds on the shell bank seemed completely unmoved by it all.

These visits and connections have been of incalculable value to PMNT. Of course, the key driver for us is getting across our messages about shorebirds, especially godwits that stop over in China during migration. These include: the extraordinary nature of the birds and their migrations; how essential the stopover habitats on the Chinese coast are; and the enormous impact of human-created habitat loss on the bird populations.

This has driven our engagement with China itself, especially since signing the sister-site agreement with Yalu Jiang in 2004, but opportunities to engage with local communities and project these messages to them are no less important. Through Estella's initiatives, the Trust has been able to do just that.

As a member and Trustee of many



ACTIVIST: A typically enthusiastic Estella Lee leads a busload of conservationists from Auckland in cleaning up the shellbank. Photo / Jim Eagles

communities and service groups, Estella has wide connections. Apart from CCET and the PMNT council since 2007, she served two terms on the Auckland Conservation Board and is involved with Friends of Regional Parks, Waiaatarua Wetland Park Pest Control Group, the NZ China Friendship Society, NZ Chinese Association, the Auckland Chinese Catholic Community, and NZ Chinese Association. In 2003 she was awarded the Queen's Service Medal. Further recognition came this year with publication of two books, *Guardians of Aotearoa* by Johanna Knox and *Womenkind: NZ women making a difference*, both with chapters on Estella.

In 2010 Estella's role with the Trust underwent a step change. On previous visits to Yalu Jiang we relied on English speakers among our hosts to interpret for us which worked quite well. But Estella's presence brought significant advantages. We were able to engage more effectively with the Chinese, as well as learning much about customs and culture that may have passed us by previously. Perhaps more importantly, she was able to form her own relationships with some of the reserve staff, further cementing the partnership.

In this and other ways, she was always much more than just an interpreter. This was clearly evident at an event in Donggang, the port city of Dandong.

The occasion was a workshop attended by a range of people - reserve managers from elsewhere in China, and officials of local and central government - which was an opportunity for us to highlight the immense importance of the Yalu Jiang reserve for our shorebirds and the enormous pressures they faced from disturbance and loss of habitat. Estella presented this directly, without the need for any translation, which would only have interrupted the flow unnecessarily. She delivered a stunning performance.

In contrast to previous speakers, during which there seemed to be a lot of activity and movement within the venue, there was silence. Informed by her own familiarity with the issues, and delivering with passion, Estella had the audience spellbound. Several Chinese officials made it clear afterwards how impressed they had been. On subsequent visits to China Estella continued to be a pivotal member of our team.

Now that she is standing down from Council, we express our immense gratitude for all her efforts in support of the Trust and wish her well. She will not, of course, be lost to us: she intends to continue her various activities, including organising bus trips to Pūkoro Mirānda. At least I hope that is the case because I am working on some new jokes. 



HARDY BAND: The team that turned out in atrocious weather to plant included (from left) Trish Wells, Cathy Cato, Ray Buckmaster, Olga Brochner and Ken Brown from DOC with the post-hole borer. Photos / Tony Green

Working to bring our land back to life

The first step in restoring the Findlay Reserve to something like the habitat it was a century ago has been taken with a highly successful test planting being carried out adjacent to the Stilt Ponds. Further planting is planned over the next few years.

The campaign to rehabilitate the Robert Findlay Wildlife Reserve has got off to an amazing start with more than 30 volunteers, many of them new to PMNT, turning out in appalling weather to plant 800 trees, shrubs and grasses in a prepared test strip on the edge of the Stilt Ponds.

This was both a trial aimed at seeing what works in preparation for much bigger plantings planned from next year and a demonstration which it is hoped will add weight to a significant funding application the Trust has lodged with the DOC Community Fund.

It all went so well that the volunteers who turned out – and anyone else who wants to join in – are now officially Friends of the Findlay Reserve and linked by a digital newsletter about the project (if you'd also like to join contact admin@shorebirds.org.nz).

The key to the success of the day was meticulous preparation by project leader Ray Buckmaster. Mature fennel

in the trial area was slashed and the subsequent regrowth, along with areas of the pest plant *Carex divisa*, were sprayed twice. Then the day before holes were augered by Ken Brown from DOC and Warwick Buckman of HELP (the Waihi based Habitat Enhancement Landcare Programme) to make for speedy planting.

Perhaps the most remarkable feature of the whole exercise was that in spite of the cold, high winds and rain so many people turned up. The weather was so bad that at first there were worries the plants might get blown away before they could be planted . . . and by the end some of the planters looked to be at risk.

But in spite of the weather – or perhaps because of an urge to escape it – the planting went wonderfully well. Even though a hundred or so extra plants turned up unexpectedly courtesy of DOC, the work was all done in half the expected time and everyone escaped to the Shorebird Centre where Ann

Buckmaster had provided hot soup and bread.

Ray was delighted with the outcome 'Perfection eluded us, as a few plants ended up in the wrong holes, but overall it was an impressive effort. We will have to wait for a year to see how the plants survive but it's a great start.'

The main species selected for use were the native grass Oioi and the shrub Saltmarsh Ribbonwood or Makaka, both of which had been used by DOC for last year's plantings on the Taramaire Reserve, plus small numbers of the larger Toetoe, Giant Umbrella Sedge, Coastal Astelia and Coastal Tree Daisy, and a few extra species which could be useful.

Some of the plants were grown by Ray himself, some came from HELP and some from the Te Whangai Trust's local nursery.

Oioi was placed close to the shore of the Stilt Pond, above the *Sarcocornia* belt, in a zone of *Carex divisa*. Salt Marsh



GREEN FINGERS: Getting their hands dirty planting are (from left) Ian Higgins, PMNT chair William Perry; and Barbara Smith with spade and seedlings. Photos / Tony Green

Ribbon-wood, which is the cornerstone species for this area, was planted further back.

Potentially larger species like Karo, Cabbage Tree and Ngaio were placed on higher ground on either side of the track from the Shorebird Centre where, Ray said, 'If they prove troublesome over time they can easily be taken out but, while they are there, they will provide good cover for natural re-generation.'

The volunteers even found time to plant a few Pohutukawa, also donated by DOC, around the ruins of the Limeworks where they may one day provide shade for picnics.

Not planted at this stage was *Muehlenbeckia*, which clammers over other plants, but it will be used for single species planting in large areas in the future.

Ray is also very keen to include in future planting the Knobby Club-rush which is widely used in coastal restoration work. 'We made an extensive search from Taramaire to the shellbank and found only five mature plants so it is close to local extinction. Hopefully the collected seed will germinate.'

In fact, four people with horticultural



FLAGSHIP SPECIES: A major aim of the planting project is to bring back the Fernbird. Photo / Donald Snook

experience have already volunteered to grow 2-3,000 plants from seeds or cuttings for next year's effort to augment whatever is able to be purchased with grant money. One of the volunteer growers has even made a donation towards the cost of raising the plants – potting mix, fertiliser and pots – and the PMNT Council has

also agreed to meet any expenses the growers incur.

But, while it was an encouraging first step, Ray emphasised afterwards that 're-wilding the Findlay Reserve is going to be a multi-year effort. There's a lot more we need to do alongside the planting, including correction of the drainage issues, predator control, fencing and signage. It's likely to be a 10 year process.'

The end point, he said, is 'a self-regenerating native habitat which supports a diversity of life forms. It is generally accepted that the bigger the connected habitat is, the greater the chance of the individual populations that compose it surviving adverse circumstances. With our Reserve being almost contiguous with the proposed Repo ki Pūkorokoro wetland project over the road and very close to DOC's coastal land to the north, the prospects are even better.'

Ray said the flagship species for the project was the Fernbird, 'and we're all looking forward to the day when the first of them is spotted in the reserve. But it will be just one of many species of plants and animals that will benefit from this re-wilding exercise.' 



TOUR OF INSPECTION: Members of PMNT Council get a guided tour of Te Repo ki Pūkorokoro block, across the road from the Findlay Reserve, from Tim Brandenburg, North Island manager of Living Water. Photo / Jim Eagles

Trust joins wetland restoration project

After months of wrestling over whether to join the Tiaki Repo ki Pūkorokoro trust, which will preside over the restoration of 19.6ha of wetland over the road from the Robert Findlay Wildlife Reserve, PMNT has finally decided to sign up.

The Council had always supported the wetland restoration itself, recognising that it would fit perfectly into our longterm aim of restoring the Findlay Reserve and the adjacent coastal strip, but there were concerns about the structure of the TRkP trust and its possible impact on PMNT.

Among these were:

*Whether PMNT or its representative on the TRkP might incur some financial liability if the project ran into problems.

*If becoming involved in another major project would spread PMNT's limited resources too thinly.

*The wording of the TRkP trust deed suggested that PMNT's representatives were there as individuals, not representatives of our Trust, and that any replacements would be appointed not by our Council but by the TRkP board.

*The proposed make-up of the TRkP board looked to be dominated by local farming interests rather than environmental groups.

The Council did agree to join the other proposed members of TRkP – Ngati Paoa, Te Whangai Trust, Dalton Hapu Trust, Western Firth Catchment Group and a Miranda community representative – in an incubate process aimed at reaching agreement on the way forward.

The Council also had an on-site meeting with a representative of the Living Water Partnership, between the Department of Conservation and Fonterra, which is funding the creation of the wetland project, to discuss its concerns.

In addition, local farmer Gary Dalton, who initiated the wetland project, attended a Council meeting to outline his vision and answer questions.

As a result the TPkP trust deed was considerably revised with, among other things, a new clause on the make-up of its trust board clarifying that its members are appointed by the participating organisations as their representatives.

The other representatives on TRkP agreed to the Whakatitwai-based environmental education organisation Eco-Quest being added to the participating groups.

The Council was assured that TRkP's

method of operation would be to seek grants which would allow it to employ experts to carry out its work so there should be no particular demands placed on PMNT members.

Most recently PMNT got a legal opinion that the wording of the revised trust deed effectively meant that trustees would have to be grossly negligent (the wording is dishonest or the wilful commission of an act known to be a breach of trust) to be liable. The opinion concluded, 'There is no way to absolutely guarantee that there would be no personal liability on you as a trustee but the structure and indemnity clause go a very long way to reduce that risk significantly.'

The legal opinion also indicated that, with the addition of the new wording on representation, PMNT's concerns about the trust deed had been largely dealt with.

Chair William Perry, who has been representing the Trust in the incubate process, will be our first representative with Keith Woodley as his back-up.

Meanwhile the TPRkP trust is already moving forward and is considering a report from environmental consultants Wildlands on the next steps.

Jim Eagles

Botanical experts drawn to Pūkorokoro

A botanical summit to discuss how best to restore the coastal strip will be held as a result of a visit to the area by the Auckland Botanical Society, reports **Keith Woodley**.

It all turned out to be long overdue. Auckland Botanical Society did a field trip to Pūkorokoro Miranda in April. Somewhat surprisingly this was their first ever expedition here as a group. Moreover for some participants it was their first visit ever.

Led by Bec Stanley and Mike Wilcox – we spent several hours walking over the coastal strip and on to the Tiaki Repo block. At the beginning of the walk, just a hundred metres or so along the trail, I needed to return to the centre on a maintenance errand. I looked at the group and considered the feasibility of catching up with them further along the trail. Then I thought: wait, they're botanists. I returned to the centre and was away about 40 minutes: upon my return they had barely moved. Proving the old adage: if you go walking and wish to reach your destination, avoid going with botanists. I found most of them were quick to agree with this assessment of their average travel speed.

There followed an illuminating few hours of learning. The entire coast of course is a blend of exotic and native, predominantly the former. Bordered by a tidal creek, mangroves and salt marsh, it has all been grazed in the past, although there are some areas where grazing has been excluded for nearly 20 years. Consequently there are mosaics of diverse flora to attract the botanical eye.

The undoubted highlight however, and that it came at the end of the excursion was no coincidence – for I planned it that way – was the newly purchased Tiaki Repo block. If you are a regular visitor to Pūkorokoro Miranda, driving along East Coast Road, you may be quite familiar with this area, although you probably do not know it well because most of the time you will likely be checking to see what birds are on the Stilt Ponds opposite.

There is a narrow strip of pasture alongside the road where, until the mid 1990s, for those with longer memories of the area, the two old huts sat. The most prominent feature today, apart from the shell embankment erected in the wake of the tidal surge last year, is the solitary macrocarpa where the Spoonbills like to



BOTANICAL WONDER: Keith Woodley in the centre of the Meadow of Māori musk at Pūkorokoro and (below) one of the plant's delightful flowers.

Photos / Jim Eagles

roost. On closer examination however, there is a section that left the botanists most excited.

A native salt marsh species, commonly known as Māori musk, is regarded as rare in this area. It is a beautiful ground hugging plant with tiny half-flowers. Previous botanical surveys have sometimes found small pockets of it, but it seemed to come and go, perhaps grazed out, or out-competed by exotics. Therefore it was a surprise earlier in the year, to find an extensive meadow of it on the Tiaki Repo block, seeming to be thriving in what was a heavily grazed area. It was a significant discovery, one that greatly increases the ecological value of the restoration project. Until recently known as *Mimulus repens*, in the manner of taxonomy it has been renamed *Thyridia repens*. I suppose there is scientific logic at work here, though it does make it sound more like some sort of disease.

Nevertheless for the botanists it was a stunning revelation with which to round off their field trip.

The Botanical Society visit was most timely, and has already borne fruit. Apart from Tiaki Repo, there are several other restoration/replanting projects now under way at Pūkorokoro Miranda. As reported elsewhere in this issue work has begun on the Findlay Reserve; several years ago DOC commenced replanting the Rangipo block north of Taramaire; and last year started work on the area immediately opposite the Shorebird Centre. At the end of the field trip as we talked about these various projects, Bec Stanley suggested a botanical summit might be a good idea. Indeed it is. So a gathering of people with expertise and experience of the area has been arranged. The aim is to create an overall vision for the area and explore possible synergies and opportunities for coordinating efforts. 



PUBLIC ART: Mosaic of Kim Il Sung celebrates the end of the war against Japan in 1945. Photos / Adrian Riegen



From the Chair

Seeking Shorebirds inside the DPRK

PMNT chair **William Perry** experienced a number of firsts - some of them birds - when he visited the DPRK as part of this year's leg of our five-year-old survey of the country's migratory shorebirds.

This was my first visit to the Democratic People's Republic of Korea, a country that is rarely visited by tourists. We were there for 10 days from 4-15 May. Our objective was to complete a five-year survey of migratory shorebirds in the DPRK as part of a wider project to survey other parts of the Yellow Sea.

My travelling companions, Adrian Riegen, David Melville and Keith Woodley had all been there before, including the 2018 trip when they were accompanied by a TV crew, but this time they took me instead.

Adrian had timed our visit to coincide with the best tides and this meant that we were there later in the season than we would have preferred, as many of the shorebirds would have moved on by the time we arrived. We were hoping to visit new sites that had not been counted on previous visits and to re-visit sites that had already been counted on previous visits.

There were many 'firsts' for me on this expedition: my first time in a Tupolev aircraft; first time in DPRK; first time for several bird species (see the list on page 14).

We travelled everywhere in a Toyota bus that also transported our civilian minders,

who were all members of staff in the Nature Conservation Union of Korea (NCUK), a sort of combination of our Department of Conservation and an NGO like Forest & Bird. These three men and two women plus the male bus driver were our constant companions for the 10 days that we were in Korea and I now regard them as personal friends.

Ri Song Il - or Mr Ri - was in charge and he seems to know almost everybody in Korea. He also speaks very good English and is an excellent translator. He was usually the person who jumped out of the bus to speak to officials at check points and provincial borders.

Mr Ri was in the security check area

of Pyongyang Airport to facilitate our progress through a very thorough examination of our belongings on arrival. Even with his presence this security examination was quite stressful; goodness knows what it would have been like without him.

Also at the airport was Hong Hyo Sung. Hong is a bit younger than Mr Ri but his spoken English is excellent and his translation skills are most impressive. Our other NCUK companions were Ju Song I, a young woman who has developed sound shorebird identification skills; Kim Ji Hyang, another young woman whose birding skills are in progress; and Kwak Il Chon, a young man who is interested in the birds and, like Mr Ri, seems to have considerable influence with officialdom.

All five spoke some English and three of them were fluent. The driver, in common with most of the Koreans we met, had no English language at all. His driving skills were supported by other mechanical skills that proved to be invaluable during our stay.

The country seemed very peaceful though we did pass through many a military check point where the guards were armed and at some of the sites



TEAM 2019: (from left, standing) Local official, Adrian Riegen, Kwak Il Chon, Kim Ji Hyang, Ri Song Il, Keith Woodley, Hong Hyo Song, David Melville, (kneeling) Ju Song I, William Perry.



BIRDING COUNTRY: The wetland at the first survey site at Chonghwa-ri.

we visited we were supervised by armed soldiers.

Our own movements were limited; we were accompanied by at least one of the NCUK people everywhere we went. This was not at all alarming or oppressive – on the contrary, it made me feel quite safe.

Our accommodation was all in hotels, always two twin rooms between the four of us. The NCUK people stayed in the same hotels. We met with them for briefings and debriefs but they generally had meals separately from us.

Between Pyongyang Airport and the hotel, we stopped to buy a bunch of flowers. As Chairperson and official representative of PMNT, I was invited to lay these flowers at the feet of the statues of the Great Leader (Kim Il Sung) and his son, the Dear Leader (Kim Jong Il). These statues are massive, 20m high bronzes that are a central part of the Mansudae Grand Monument.

After paying homage to the father and grandfather of the current Supreme Leader, Kim Jong Un, I was invited to write in the Visitors' Book housed in a special building at the Grand Monument. My scribbly cursive in the Visitors' Book on 4 May 2019 reads: 'This has been an honour to see the statues and the bronzes of the guerillas and the people rebuilding the country after 40 years of occupation under their several leaders. My companions have visited many times before from New Zealand, but this is my first visit. I am very impressed by this country. Thank you for receiving us. Ngā mihi, Cofion gorau. Best wishes. William Perry. Chairperson Pūkoro-koro Miranda Naturalists' Trust.'

Beneath my scruffy scrawl is a neat

translation of my words into Korean by Mr Ri. With an impish grin he declared afterwards, 'My translation is better than your English.' Just as well, I thought.

Kwak Il Chon was particularly interested in my first impressions of his country. This is a question that is often asked by New Zealanders of visitors to our country and the Koreans are clearly no different. He asked me after I had been in Pyongyang for about two hours. The answer was, 'What impresses me most are the people.' There is a dignity and discipline about the people you see on the streets of Pyongyang. At the same time, they are just like the rest of us really.

On Sunday, the day after our arrival we were taken on a tour of the city that included a visit to an inner-city park. Our objective on this excursion was to find some birds (and we did see some beauties including the male Yellow-rumped Flycatcher) but we were also able to observe Pyongyang residents enjoying their weekend leisure time.

We stumbled upon a group of two teams of young women who were playing a game. The objective was to pick up an empty bottle without touching it using only a matchstick attached to a string rolled around a larger stick, run with it around a marker and leave the bottle at its origin, retrieve the matchstick and return to your base to allow the next participant to do the same.

The shrieks of laughter from these women caught our attention – they were clearly having a lot of fun – and Adrian and David were unable to resist joining in. Their respective performances in this activity remain classified – what goes on tour stays on tour.

This year, for the first time in five

years of DPRK visits, we visited schools in Pyongyang. This was a valuable opportunity and an honour for us to have some contact with young people.

Again, Mr Ri had prepared the ground for us by visiting these schools himself on previous occasions and educating the students on migratory shorebirds, the Flyway, why tidal flats are important to the birds, why DPRK is important to the birds.

Mr Ri opened the proceedings with a Powerpoint presentation to a class of about 50 students aged about 13 years. His presentation was followed by Adrian Riegen translated by Hong Hyo Song.

The students were very well behaved, very attentive and eager to participate. They had clearly listened well to the earlier briefings from Mr Ri and they already knew the answers to questions such as, 'How many species of shorebird occur in DPRK?' (Answer: 53).

Not so easy were the questions that took them by surprise, such as 'How many times does a godwit flap her wings on migration from New Zealand to DPRK?' I saw a couple of students discussing this question and flapping their wings slowly and then faster to try and work out one of the variables.

Several students submitted a guess or an estimate and one of them gave the 'correct' answer of 3 million. He got a prize for this answer but the top prize went to the student who asked us a question, 'What is the ecological importance of protecting and conserving shorebirds?' David Melville answered her question but she got the prize because the query showed that she and her fellow students were thinking about the issues.

Another discovery during this school



ATTENTIVE CLASSES: Pupils at Pyongyang No1 Middle School (above) and Pyongyang Chandok Middle School (below) pay close attention to the foreigners' stories about shorebirds. Photos / Adrian Riegen



visit was that our hosts had other skills. While we were waiting for the classroom to be prepared, we were ushered into a reception room with a piano, and Hong Hyo Song sat down and played without sheet music a beautiful rendition of Paul McCartney's *Yesterday*. We were captivated.

The serious birding happened at remote coastal locations about 140 km from Pyongyang. This does not sound like a huge distance (equivalent to Auckland-Cambridge) but to access these sites we had to be driven on bumpy provincial roads for the best part of a day to another hotel closer to the site and then get up early in the morning to complete the journey.

One site was so remote and so far south that we were close to the border with the Republic of Korea (known to us as South Korea and to them as 'the Southern Provinces'). It was a fantastic birding site with rice paddies supporting large numbers of Wood Sandpipers and Long-toed Stints and a sea wall from which extensive tidal flats could be observed. Western people like us had not visited this location since the 1950s. We were privileged to be in this place and it had taken many years of negotiation to get us there.

Counting shorebirds from the sea wall

proved to be a significant challenge as the tidal flats were extensive and when the tide went out, the water disappeared rapidly taking any shorebirds with it. Somehow, though, on day two, David and Keith managed to get a count of the birds from

the sea wall while Adrian, Ju Song I and I focussed on the rice paddies inland from the sea wall.

The second site we visited over the next two days was not quite as close to the border but still close enough to cause some jitters amongst the local military people. Apparently, the soldiers on site were able to see that we were harmless enough, but their superiors, back at the base or wherever they were, felt uneasy about the presence of four foreigners on their patch. Even the extensive preparation and negotiation that Mr Ri and Mr Kwak had done were not enough for the local commanders and we had to leave while the birding was still interesting.

The other three told me that it was my turn to buy a map on sale in the hotel shop in Pyongyang. As retail opportunities were limited, I seized this one enthusiastically. This map is not really intended for navigation. It shows the Korean peninsula split into its various provinces with Pyongyang as the capital. Seoul features as a Revolutionary Battle Site but there is no border between north and south, no demilitarized zone. One country, one language, one people.

One day maybe this will come to pass but, for now, DPRK is very different from its southern provinces and re-unification seems to be a distant dream. In the meantime, the country and its immediate neighbours, China and the Republic of Korea, remain an important part of the Flyway for our birds, whose navigation skills are so impressive and whose knowledge of politics is nil. 



LONG-TOED STINT.

William Perry's Bird List

I got 23 Lifers on this trip.

In Beijing (before travelling onward to the DPRK): Azure-winged Magpie, Chinese Blackbird, Crested Myna, White-cheeked Starling, Chinese Bulbul, Chinese Grosbeak.

In the DPRK: Ashy Minivet, Yellow-rumped Flycatcher, Korean Bush Warbler, Black-faced Bunting, Oriental Reed Warbler, Long-toed Stint, Red-flanked Bluetail, Brown Shrike, Meadow Bunting, Striated Heron, Long-billed Crow, Blue and White Flycatcher, Chinese Sparrowhawk, Chestnut-flanked White-eye, Hill Pigeon, Oriental Greenfinch, Oriental Turtle Dove.

This list does not include birds seen by the others and not by me (eg Ruddy Kingfisher, Black-naped Oriole) or species heard and not seen (eg probable Grey-headed Woodpecker).

All 3 tagged Kuriri reach the Arctic

Jim Eagles traces the remarkable journeys of Amanda, JoJo and Wee Jimmy from the Firth of Thames to the Arctic and marvels at how much we've learned from them, how much fun it has been and what might happen next.

Well, haven't we had a lot of excitement and surprises with our Pacific Golden Plover project, and it's not even halfway through yet.

We aimed to catch and tag 10 birds, did lots of research and brought together the world's leading authority on PGPs Wally Johnson from Montana State University, an experienced team of Pacific Golden Plover catchers from Brigham Young University Hawaii and many of New Zealand's most experienced banders . . . and got only three.

We gave those Kuriri fine individual names commemorating three of the leading lights in the project . . . and learned too late that JoJo was a male and Jim was a female (as reported in the story on page 17).

We wanted to find out where Kuriri stop off during their migratory journey to the Arctic . . . and between them our trio stayed not just on the Japanese island of Honshu – where birds from the rest of the South Pacific mostly stopover – but also Guam, Okinawa, China and Kamchatka and Chukotka in Siberia.

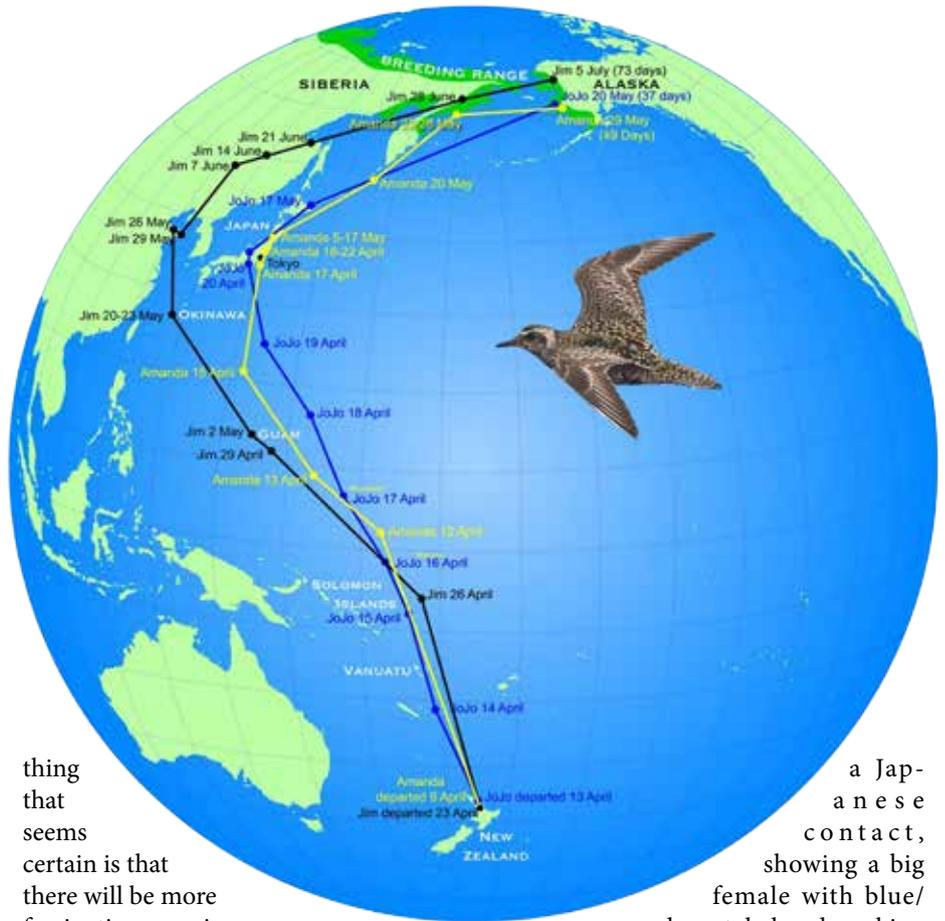
We aimed to discover where they breed . . . and it looks quite possible they nest in both Alaska and Siberia.

What else could go off programme? Well, any day now all the Pacific Golden Plovers, including our tagged trio, will head south in search of a warmer place to spend the Arctic winter, and there will be plenty of scope for more confusion.

Will they do the same as other PGPs that visit the South Pacific and take a direct route down here? Or will they decide to return via Asia? Or might they have their winter break on Efate or Moorea instead?

Will one of our tagged birds return to the Firth of Thames and allow itself to be recaptured? Or will the tags run out of juice so we don't know where the birds are? Will our new and even more cunning catching plans for this season allow us to put our seven remaining tags on Kuriri? Or will we have to settle for fitting them to Red Knots?

The options are endless. The only



thing that seems certain is that there will be more fascinating surprises as the Kuriri programme continues.

Meanwhile, looking back on what has happened so far, you'll recall that Amanda probably left Pūkoro on 8 April and most likely reached the Japanese island of Honshu on the afternoon of the 16th. JoJo took off four days after Amanda and reached Honshu on the 20th after, like her, flying some 9,900km in eight days. Wee Jimmy, meanwhile, continued her contrary pattern, hanging around on her own eating worms until 23 April, when she headed off mid-morning, unexpectedly turning up in Guam on 2 May.

Thereafter the spasmodic data received from the satellite tags, via Lee Tibbitts of the US Geological Survey's shorebird team, were sometimes augmented by reports from eager birders on the ground.

On 10 May a Japanese team organised by Toshifumi Moriya, a senior official at Japan's Ministry for the Environment, checked the fields near Tokamachi in western Honshu where JoJo recorded four pinpoints between 26 April and 5 May. They found other plovers – and took photos – but didn't sight him.

Then on 13 May, David Lawrie, PMNT's international liaison representative, distributed a photo he had received from

a Japanese contact, showing a big female with blue/red, metal bands, asking

'Is this one of ours?' It was Amanda. She had been photographed by Hiromi Kano the day before in a flock of 56 PGPs near Kurihara City in Miyagi Prefecture, about 350km north of Tokyo.

There was more excitement on 15 May when Scott Vogt, a US Navy wildlife biologist on Guam who had been contacted by Lee Tibbitts, posted a photo of Wee Jimmy on our Facebook page taken, he said, 'about two hours ago. When I got the latest data I checked those spots and there was Jim in the middle of the road. He ran off into a mowed grass area and I was able to get some photos from the vehicle. The bird is on the Naval Magazine where ordnance [ammunition] is stored. It's a secure area and we get a lot of plovers there in the winter months. I think Jim is the last one there.'

On 21 May an early morning email from Lee brought more dramatic news. 'Looks like we caught Amanda making her move to the breeding areas. What do you guys think. . . Siberia or Alaska?' The accompanying track showed a pinpoint almost at the tip of the Kamchatka Peninsula and halfway to Alaska.

Amanda then went silent but on 24 May Lee reported, 'And.....just like that, JoJo is on the central Yukon-Kuskokwim



STOPOVER: Pacific Golden Plovers near Kurihara City in Japan.

Photo / Hiromi Kano

Delta. Looks like nice breeding habitat for a plover. Looks like she departed Japan on midday 16 May and probably flew nonstop to arrive sometime on 19 May?

Her namesake, JoJo Doyle, who by this time was back in her home in Vermont, excitedly welcomed the other JoJo to America. 'Just perfect!'

Sowing confusion as ever, Jimmy did not provide a fresh GPS reading but did send a poor quality Argos satellite location that could have him either near Okinawa or in China.

The pinpoint data showed JoJo flew 4740km from Tokamachi to the Yukon Kuskokwim Delta in 85 hours at an average speed of 53km, completing a journey from New Zealand of around 14,000km.

Then followed a gap of more than two weeks – partly because the tags switched to only activating every seven days – and a few Plover Lovers were getting concerned. But on 8 June Lee sent another thrilling email announcing, 'Well, this is cool. We heard from all tags. JoJo is still near that site in Alaska. Jim is in temperate China. And Amanda is in Alaska also, just south of JoJo on the Yukon Kuskokwim Delta, after a flight to Alaska which involved a stop in Kamchatka for at least four days. That puts her arrival in Alaska 27-28 May. I wonder where Jim is headed?'

As well as being a big relief, that report raised two puzzles. First, why did Amanda stop in Kamchatka? Tony Habraken, our eager weather observer, responded, 'The Kamchatka stopover is not surprising considering what lay ahead of her. Those winds would have had her flying back-

wards.'

Second, Lee's question about what Jimmy might be up to, reflected what we were all thinking. In response Wally sent a copy of his 2017 paper on four male PGPs tagged in Chukotka, in the Russian Far East, and tracked to the Philippines and Marshall Islands. On the return journey to Chukotka, three of them followed roughly the same path across China as Jimmy.

Wally had noted when he tagged Jim that he had shorter wings indicating that he might be a Siberian bird. Could his present course mean our unpredictable little Kuriri might indeed be on track for the PGP's Russian nesting grounds?

It was a whole month before we got the answer. On 9 July Lee reported that JoJo and Amanda were still in the Delta area and by then had probably raised chicks. The pinpoint data on Jimmy plotted a remarkable course from the Firth of Thames to Guam, Okinawa, a couple of sites on China's Yellow Sea coast, then right across China and the Russian Far East to Chukotka. But there was also a 'pretty reliable' Argos satellite position placing her across the Bering Strait at Lake Selawik in Alaska, about 600km north of the other two. She had travelled at least 16,600km and taken 73 days, twice what the speedy JoJo took, and arrived much too late to breed.

Intriguingly, the pinpoints showed that towards the end of that journey Jimmy spent three weeks in Siberia, opening up the possibility that, although she ended in Alaska, she might have intended to nest in Siberia. So, enigmatic to the last, this remarkable little plover could be a Sibe-

rian bird that missed out on breeding and crossed to Alaska – as some other species do – to prepare for the flight back to New Zealand. Or she may have been aiming for Alaska all along but took the scenic route. We'll probably never know which option is correct unless Jimmy returns to the Firth of Thames this summer and we are able to catch her and fit a fresh satellite tag. Wouldn't that be amazing?

The latest satellite report shows JoJo and Amanda still on the Delta and Jim about 50km further inland from Lake Selawik. But we know that some time in the next month or so, as the short Arctic summer comes to an end, they will head south and with a bit of luck we'll discover for the first time what route Pacific Golden Plovers take to reach New Zealand.

Meanwhile we've been making plans for the next stage of our project. Instead of waiting until February to catch Kuriri and fit them with tags – by which time last summer they had become skittish and unpredictable – we're going to launch our catching in the last week of November when there is a run of suitable tides and moons. Once again we'll be joined by Wally and the team from BYUH whose continued support will be very welcome.

If the birds follow last year's pattern and hang around the sarcocornia near the Limeworks we'll try cannon-netting. If not we'll revert to the mist-netting that produced the only three birds we got last time. And if the Kuriri outsmart us once more we'll catch a few Red Knots and use up the tags on them. Whatever happens it will be great fun. 



OOPS: These shots of JoJo at Piako and Jim in Guam show we got their gender wrong. Photos / Janie Vaughan, Scott Vogt.

Gender-bending Pacific Golden Plovers

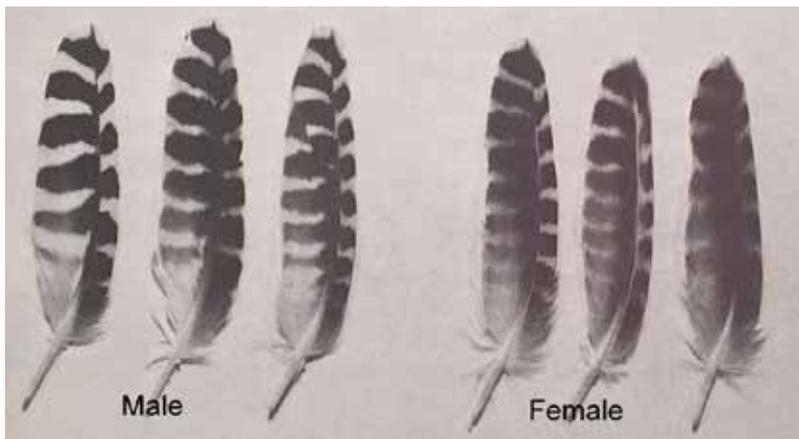
What gender do you think the two Kuriri above might be? The one on the right seems female but is called Jim and often referred to as Wee Jimmy. The one on the left looks male but the name is JoJo. So what's going on?

When the first two birds caught were processed, Wally Johnson checked their tail feathers and, with the authority that comes from studying them for 40 years, pronounced the first to be male and the second female, which is why they were named Jim and JoJo. But as the season progressed several observers started commenting on how slow Jim was to develop breeding plumage. JoJo had hardly been seen because she moved to fields and mudflats close to the mouth of the Piako River so we didn't know what her plumage was doing. Amanda, by contrast, we did see from time to time and her plumage was definitely female.

Just before JoJo departed we got by far the best photo of her, taken by Janie Vaughan, and the breast plumage looked very black and very male.

Around this time Jimmy had finally started developing that beautiful speckled gold and black Kuriri plumage but, as recorded in a photo taken by Peter Friesen the day before the feathered individualist migrated, the breast remained pale. Project coordinator Jim Eagles had seen a lot of his namesake and had started to joke that maybe he was not a late developer but gender fluid.

When Jim (the human) sent Wally a proof of the May issue of our magazine, so he could check the article on Pacific Golden Plovers, he looked at the photos of the birds and had little doubt. 'Wee Jimmy's body plumage looks like female! Has he acquired more dark feathering since photo was taken? If not, we may have a gender problem! AND JoJo looks like JoeJoe! Hmmm . . . the outer tail feather is only about 80% accurate, maybe we've been fooled!



Plovers like to do that!

By then we had received another late photo of JoJo, taken by Keith Woodley, also showing a black breast. And US Navy wildlife biologist Scott Vogt had posted on Facebook a picture of Wee Jimmy in Guam looking very feminine.

When he saw those pictures Wally confirmed his verdict. 'Re gender, yes, we have a little problem: JoJo is a guy and Jim is a gal! So much for the outer tail feather! It usually works, but not always! These New Zealand plovers like to keep us guessing!'

Explaining further, Wally said the outer tail feather test was 'a clue to gender, but only 70-80% accurate'. Outer tail feathers in male plovers were 'usually crisply barred, dark, well-defined black on white', while female feathers tended to have 'relatively somber coloration with the edges of barring less well defined' (see the photo below from a 1983 article in *Condor* with the male feathers on the left and female feathers on the right).

By this stage Amanda and JoJo were in Japan and Jim was on his way, to Guam as it turned out, and were attracting a bit of attention. So, rather than confuse the narrative, it was decided to hold off on revealing the gender swap until the birds – hopefully – got to their breeding grounds. Well now they have and so Wee Jimmy and JoJo can come out of the closet.

We had been thinking it might also be appropriate to change their names to JoeJoe and Jemima. Or, because Wally had suggested Jim's short wings pointed to a Siberian origin, Tony

Habraken had taken to calling him Jimenov, so maybe Zhaklina would be a better choice.

But then Google came to the rescue – as it so often does – by revealing that JoJo is an increasingly popular name for boys and Jimmy for girls. So we can acknowledge the genders but leave the names as they are. Fantastika! As a Siberian might say. 🐦



HIGH-FLIERS: Black-tailed Godwits - all but the lead bird in breeding plumage - in flight.

Photo / Richard Else

How high does a godwit fly?

The development of new satellite tags recently allowed researchers to discover that Black-tailed Godwits fly up to 6000m above sea-level. But, writes **Jim Eagles**, it would be even more exciting to see what altitude our Bar-tailed Godwits reach during their record-breaking flights from Alaska to New Zealand.

We now know quite a lot about Bar-tailed Godwits. We know the ones that visit us come from Alaska and not, as once thought, from Siberia. We know they fly home via the Yellow Sea. We know, thanks to E7's epic 11,700 km flight in 2007, that they fly here direct from the Arctic, the world record for long-distance flight. But what we still don't know is how high they fly. And it's something everyone interested in birds desperately wants to find out.

Bob Gill, the leader of the project that recorded E7's record-breaking endeavor, says: 'Flight altitude has been the single most asked question in all the presentations I have given over the past two decades. Empirical information on how high godwits fly remains the big unknown, as it does for all other extreme endurance migrants crossing vast barriers.'

Indeed, he has tried very hard to get an answer himself but until now, like everyone else, was handicapped by the absence of pressure-sensitive satellite tags. 'At one stage we got tags on Whimbels that recorded ambient air temperature thinking this would be a

proxy for flight altitude. But, alas, birds encountered temperature inversions along the way.'

Most lists of the top 10 high-flying birds do include the Bar-tailed Godwit, usually on the basis of them being spotted by jetliner pilots flying at 20,000ft (6000m), but references for such sightings are hard to find so perhaps that should be viewed with caution.

However, there are some solid indications that they do fly quite high. For instance, in 2006 a climber 2610m up on Ruapehu found the body of a bird which was later identified by Phil Battley as a Bar-tailed Godwit. In a short note written for *Notornis*, Phil said his analysis of the wing moult indicated that the godwit died before mid-October when it was probably still on migration southwards and was 'presumably attempting an overland crossing above the central high country of the North Island, or it had drifted eastwards when heading towards the South Island.'

In addition, as Phil recorded in that note, in a study in 1999 two Swedish researchers using radar found that Bar-

tailed Godwits migrating over southern Sweden did so at an average altitude of 2223m and went as high as 2806m.

Still, there is quite a difference between those records and suggestions they get as high as 6000m. Obviously further research needs to be done to find just how high these remarkable birds can fly.

Fortunately, pressure-sensitive tags do now exist, and a recent paper by an international team, led by Nathan Senner from the University of Montana, reports on the results of a project to fit them to 20 female Black-tailed Godwits in the Haanmeer Nature Reserve in the Netherlands.

These tags, developed by the University of Amsterdam, are solar-powered and as well as measuring position also record altitude and wingbeat, and so point to the physical factors affecting birds' inflight migratory behaviour.

The 20 godwits carried the tags during their annual migration to sub-Saharan African – during which, in sharp contrast to their Bar-tailed cousins, they were able to stop en route to refuel in wetlands and agricultural



EVEN HIGHER? (above) Bar-tailed Godwits soaring above the clouds; (below) Lesser Black-backed Gull wearing one of the UvA-BITS transmitters. Photos / Art Polkanov, Misjel Decler

fields – and 14 of them returned to Haanmeer Nature Reserve.

Of those 14, four still had working trackers. The data from them, published earlier this year on rspa.royalsocietypublishing.org, found that during the 2013-2014 migratory cycle those four Black-tailed Godwits:

- * Made a total of 24 flights ranging in duration from 3.6 to 48.3 hours and covering from 214 to 2524km.

- * Achieved an average speed of 65kph but went as fast as 145kph.

- * Had a wingbeat frequency averaging 6.3 per second, which rose during climbing but never fell to zero during descents, meaning that ‘at no point did godwits employ soaring or gliding during their migratory flights’.

- * Flew at an average height of 1385m, going over 5000m during 21% of all flights – indeed, all four birds went above 5000m at least once – with the highest recorded at 5956m.

The report notes that while ground elevation clearly did affect the height flown it ‘failed to explain the majority of the variation in flight altitudes exhibited by godwits’.

Similarly, the research showed that while wind conditions also affected the height birds flew at – with tailwinds rather than headwinds having the major influence – ‘in none of our models was the level of wind support . . . the strongest factor explaining variation in



either godwit flight altitudes or the rate of change in altitude’.

Rather, somewhat unexpectedly, the strongest correlation between weather conditions and movement of birds to high altitude was with high ground temperatures. When they were con-

fronted by high temperatures godwits moved to higher altitudes where the air was cooler. This is presumably because, as other research has shown, high temperatures can induce hyperthermia, which may cause birds to stop frequently to dissipate excess heat, or it

The answer is blowin' in the wind

can lead them to use evaporative cooling, potentially making it difficult to maintain water balance over the course of a long migratory flight.

Discussing their findings, the scientists conclude that high-altitude flight is probably rather common among long-distance migrants but little known because it is rarely observed. Indeed, it 'would not be surprising if most, if not all, migratory birds are capable of migrating at altitudes up to 6000m.'

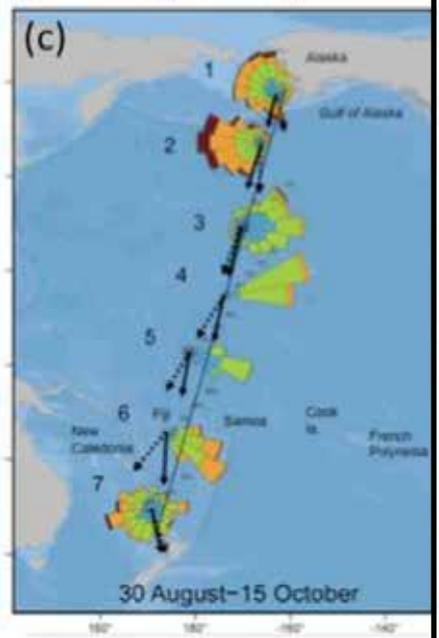
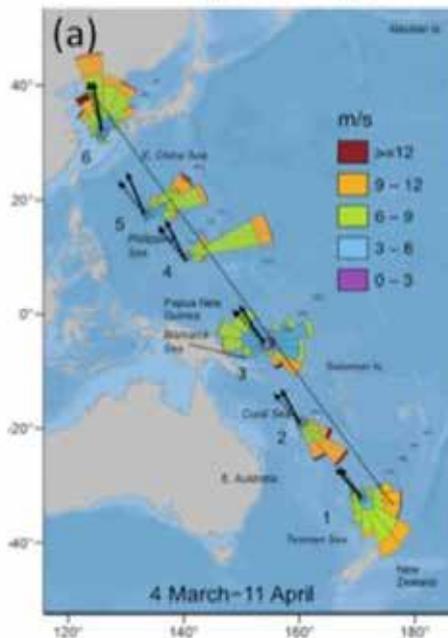
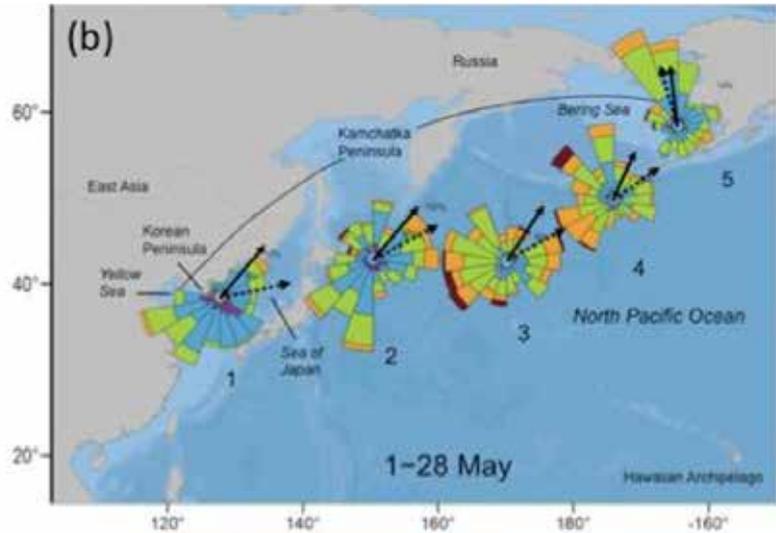
The paucity of reports of birds flying at extremely high altitudes over lowland environments, they suggest, probably stems from the fact that most studies on migratory flight altitudes have tended to be done in northern latitudes or at night, 'situations in which temperatures do not regularly approach those that our results suggest should induce high altitude flights.' By contrast, one study done in Israel's Negev Desert in Israel, where average daytime temperatures during spring migration exceed 30C, 'found remarkably similar variation in the flight altitudes of diurnal migrants to those exhibited by godwits in our study.'

In conclusion they call for more such studies, covering a wide array of environmental circumstances, to identify the selection pressures influencing individual-level behaviours in order to document the full gamut of migratory strategies and their physiological underpinnings.'

That's a call PMNT would be keen to answer by fitting these special tags to the greatest godwit fliers of them all, the Bar-tailed, to see how high they fly during their 25,000km migratory round-trip across the Pacific.

As banding subcommittee chair Adrian Riegen said after reading the Senner team's paper, 'After the Pacific Golden Plover project we should look at this for Bar-tailed Godwit. It would be fantastic to discover what altitude they fly at, how high they go, what factors influence their flight patterns, etc.'

If PMNT does pick up that idea there is bound to be plenty of high-powered help. For instance, when I asked for a few pointers on research into high-flying birds, Bob Gill, these days Scientist Emeritus at the Alaskan Science Centre, concluded his response with the comment, 'If there is any room for me on this project I'd love to be part of it. Good luck.'



If you ever wondered how Bar-tailed Godwits came to take the triangular route they follow on their annual 29,000km migratory round trip these three diagrams provide an important part of the answer.

The diagrams were drawn up for a paper by a team led by Bob Gill, from the US Geological Survey's Alaska Science Centre, on how wind selection facilitates the godwits' amazing migratory journey (see *PM News* 110). To the disappointment of the authors the diagrams were not included in the *Journal of Animal Behaviour*.

But, as Bob says, they 'get to the heart of the atmospheric setting about each leg of the migration, or why birds

migrate during the three respective periods.'

The roses for each segment on the journey show wind data 10m above sea level during the period 2000-2009. The length of the bars extending from the centre of each rose indicate the frequency of winds from that direction. The colours reflect the wind speed in m/s (see the key in diagram a). The solid arrow from the centre of each rose indicates true North and the dotted arrow is the average bearing of all birds nearest that location.

The data indicate that the route taken maximises use of favourable winds.





ALL IN A DAY'S WORK: Dressing up as a Pacific Golden Plover for a niece's party (note the compass for finding the right migration route) and working with a South Island Pied Oystercatcher. Photos / Amanda Hunt, Keith Woodley

The joy of working with Shorebirds

This season's Summer Shore Guide **Amanda Hunt** reports on the huge pleasure she got from working with the birds, the people who care for them and the visitors who come to see them.

Crouching in front of the stilt hide, waiting for Adrian Riegen to fire a net over 200 unsuspecting wrybill, I marvelled once again that this was my job.

It was just one of so many moments. The silk rustle of godwit wings as they flew overhead; the twice-daily marvel of the birds flying in from the Firth; unfurling a mist net under the stars at 4 am; alerting visitors to an imminent Wrybill ballet performance, and so much more.

I have loved seeing peoples' faces light up at their first sight of a godwit in the scope. I've seen wonder dawn in everyone from an elderly Japanese woman, who gave me the thumbs-up, to four-year-olds at hobbit-height scopes beside the hides. People of all ages, from all over the world, have fallen under the spell of our incredible birds. It's been a privilege getting to see that happen.

I found it particularly fulfilling to interact with visitors from China. They were always surprised – and delighted – to learn that the birds would be in their country a couple of months later. I became adept at slipping advocacy for the Yellow Sea into my interactions with Chinese and Korean tourists, though given my rudimentary

Mandarin skills, this seldom extended far beyond the map in the Centre leaflet.

It was great working alongside educator Alex Eagles Tully as she introduced tamariki to the birds. Being crammed in the Stilt Hide in the rain with twenty excited children is something I got to experience several times. Question of the year goes to a six-year-old from Auckland, who asked what colour godwit poo was.

Working with Chelsea Ralls was heaps of fun. People often got us mixed up, which I found very flattering. Someone even asked if she was my sister!

As became apparent later, the Pacific Golden Plovers captured my heart early on. I became a compulsive spy. It was not uncommon for me to spend an hour (or more) at the hides watching them once guiding was finished for the day. Keith Woodley started to get worried and did his best to insist I leave work occasionally.

JoJo (the person) Doyle and I became partners in crime, strategising about monitoring tactics and speculating on the night moves of our little Houdinis. One night we crawled on our bellies commando-style to the edge of the Limeworks to spy on them, so close that we could hear

them chattering softly. Unfortunately we couldn't understand what they said.

But the highlight has to be the night we caught Amanda (the PGP). Bumping along the road in Adrian's van holding this warm, silky, precious creature, then releasing her, will stay in my memory for ever. Having a bird named after me is a career achievement that will be difficult to top.

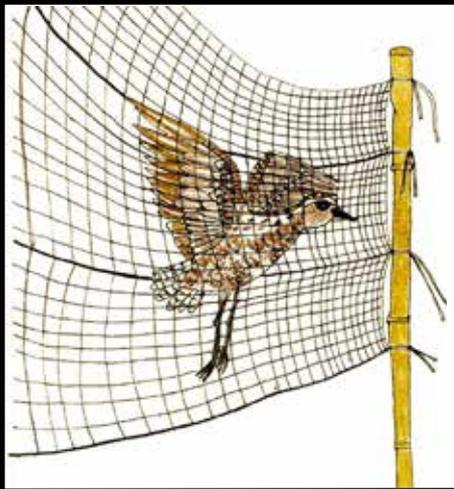
Thank you Keith, Tony Habraken, Adrian, Gillian Vaughan and others for patiently answering my endless questions. Thank you to the many Trust members who made me feel so welcome. I was going to mention you by name, but there were so many that I was bound to leave someone out. A special thank you to staff and volunteers who covered for me in the shop so I could do exciting things like carrying SIPOs around for a photo shoot, and helping to set cannon nets for PGPs (pointlessly, it turned out).

As a shorebird enthusiast from way back, it's been a dream come true to spend all day watching these nonchalant feathered miracles, and raving on about them to anyone who'd listen.

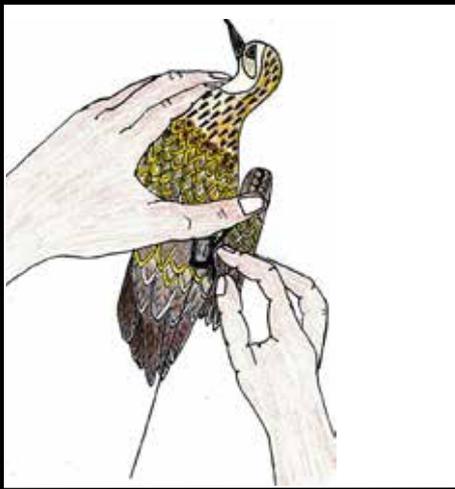
I hope you'll have me back next summer. I've loved every minute. 

GODWIT TIMES

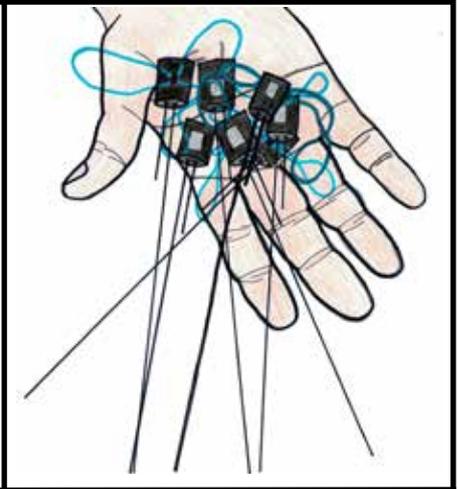
The story of Koro and Kuriri Jimmy (continued...)



The Kuriri team set up cannon nets but NZ PGPs were harder to trick than the Hawaiians. So mist nets were put across their flight path and two were caught.



Fitting satellite tags to birds is very tricky. The first small Kuriri tagged was named Wee Jimmy after my grandad, Koro Jim. The second was called JoJo.



After weeks of trying we had one last go to net Kuriri and a third was caught. Koro was sad that 7 tags were not used but I told him, 'There's always next summer.'



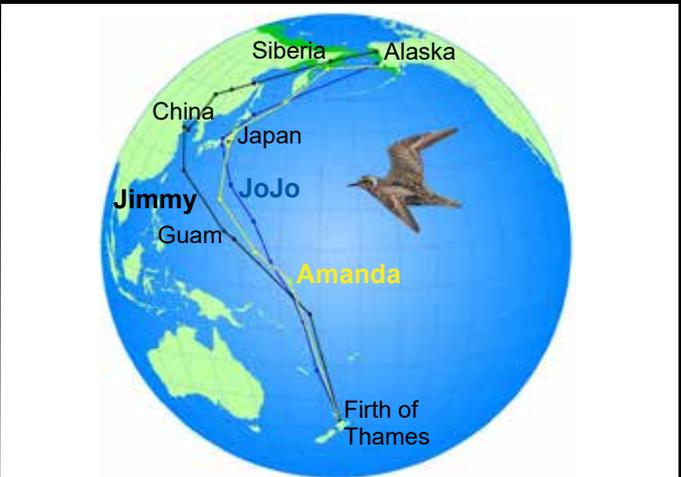
The last bird tagged, Kuriri Amanda, was the first to leave NZ on 8 April. Four days later JoJo also left NZ and flew 9,000km non-stop to Japan in 8 days. Meanwhile Jimmy was busy pulling polychaete worms out of the Miranda mud.



Finally on 23 April Wee Jimmy left. To everyone's surprise a few days later her tag showed her in the grounds of an ammunition store on the island of Guam. A US Navy officer took his photo and put it on Facebook.



Kuriri Amanda rested in Japan for a month then flew to the Yukon Delta in Alaska, stopping in Siberia to avoid headwinds. Soon after JoJo flew directly to the Yukon Delta having taken only 37 days to fly 14,000km from NZ.



After Guam, Wee Jimmy went sightseeing to Okinawa and the Yellow Sea, then flew across China to Siberia before landing at Lake Selawik, Alaska. She flew 16,600km in 73 days but arrived too late to find a mate and raise chicks.

PŪKOROKORO MIRANDA NATURALISTS' TRUST



The Shorebird Centre

283 East Coast Road
RD 3 Pokeno 2473
phone (09) 232 2781
admin@shorebirds.org.nz
www.shorebirds.org.nz
www.facebook.com/
MirandaShorebirdCentre

Manager: Keith Woodley
Centre Assistant: Chelsea Ralls
Educator: Alex Eagles-Tully
educator@shorebirds.org.nz
027 892 2560

PūkoroKoro Miranda Naturalists' Trust Council

Chair: William Perry
home 09 525 2771
wncperry@outlook.com
Deputy Chair and Banding
Convenor: Adrian Riegen
riegen@xtra.co.nz
09 814 9741
Secretary: Trish Wells
Trishwells1@gmail.com
0272 688 057
Treasurer: Kevin Vaughan
kevinv@clear.net.nz
09 817 9262
Council members: Gillian Vaughan
(Immediate Past Chair), David
Lawrie, Wendy Hare, Bruce
Postill, Trudy Lane, Ann and Ray
Buckmaster, Jim Eagles.

Magazine

PūkoroKoro Miranda Naturalists' Trust publishes PūkoroKoro 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.
Editor: Jim Eagles
jimeagles45@gmail.com
(09) 445 2444 or 021 0231 6033

See the birds

Situated on the Firth of Thames between Kaiuaa and the Miranda Hot Pools, the PūkoroKoro 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.

Low cost accommodation

The Shorebird Centre has bunkrooms for hire and two self-contained units: Beds cost \$20 per night for members and \$25 for non-members. Self-contained units are \$70 for members and \$95 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 pay a subscription via Paypal, by direct credit or by posting a cheque.

Bequests

Remember the PūkoroKoro Miranda Naturalists' Trust in your will and assist its vital work for migratory shorebirds. For further information and a copy of our legacy letter contact the Shorebird Centre.

Want to be involved?

Friends of PūkoroKoro Miranda

This is a volunteer group which helps look after the Shorebird Centre. That can include assisting with the shop, guiding school groups or meeting people down at the hide. Regular days for volunteer training are held. Contact the Centre for details.

Long term Volunteers

Spend four weeks or more on the shoreline at Miranda. If you are interested in staffing the Shorebird Centre, helping with school groups or talking to people on the shellbank for a few weeks contact Keith Woodley to discuss options. You can have free accommodation in one of the bunkrooms and use of a bicycle.

Firth of Thames Census

Run by Birds NZ (OSNZ) and held twice a year, in June and November, the census days are a good chance to get involved with field work and research. Ask at the centre for details.

Contribute to the Magazine

If you've got something you've written, a piece of research, a poem or a photo send it in to PūkoroKoro Miranda News. If you want to discuss your ideas contact Jim Eagles.

Help in the Shorebird Centre Garden

We can always use extra hands in the Miranda Garden, be it a half hours weeding or more ambitious projects. If you do have some spare time please ask at the centre for ideas, adopt a patch or feel free to take up any garden maintenance you can see needs doing.

Don't miss our 2020 Shorebird Calendar

Stunning photos of our favourite birds and all the information you need to make the most of a visit to the Shorebird Centre. Plus a big calendar block with lots of room for notes, high tides for Pūkorokoro and the dates of our events during the year.

All for \$17.90



ROYAL SPOONBILLS, or Kokuku Ngutupapa, are increasing in number at Pūkorokoro. There are often more than 60 displaying their mix of elegance and humour. Photo by Steve Attwood.

July 2020

Pūkorokoro Miranda Shorebird Centre birdwatching is best 2-3 hours either side of high tide. Check this information about high tide times and heights (in metres) on the dates below to plan your visit.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
28	29	30	1	2	3	4
5	6	7	8	9	10	11
0645 3.6 1924 3.8	0740 3.6 2013 3.8	0831 3.6 2059 3.8	0919 3.6 2144 3.7	1004 3.5 2229 3.6	1048 3.4 2314 3.5	1130 3.4 2359 3.5
12	13	14	15	16	17	18
1214 3.3	0945 3.4 1300 3.2	0132 3.3 1349 3.1	0220 3.2 1443 3.1	0309 3.2 1540 3.1	0359 3.2 1637 3.2	0450 3.2 1728 3.3
19	20	21	22	23	24	25
0541 3.3 1816 3.4	0632 3.3 1901 3.6	0722 3.5 1946 3.7	0811 3.6 2031 3.8	0859 3.7 2118 3.9	0947 3.7 2206 3.9	1034 3.7 2295 3.9
26	27	28	29	30	31	1
1124 3.7 2246 3.8	1215 3.7	0039 3.7 1310 3.6	0139 3.6 1403 3.5	0230 3.5 1510 3.5	0330 3.5 1621 3.5	4
2	3	4	5	6	7	8

Pūkorokoro Miranda Shorebird Centre
283 East Coast Road, Miranda

09 232 2781

admin@shorebirds.org.nz

shorebirds.org.nz

MirandaShorebirdCentre

Just arrived Year-of-the-Wrybill Ts



Mark the Year of the Wrybill with these special T-shirts designed by Keith Woodley

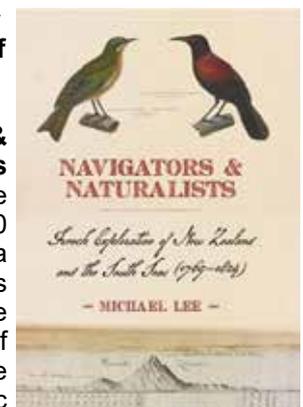
\$39.90

New additions to our fantastic collection of nature books

Naturalists & Navigators
by Michael Lee

\$69.90

The fascinating saga of the French seafarers who explored the natural wonders of New Zealand and the South Pacific



Womankind
by Margie Thomson and Simon Young

\$65

The stories of New Zealand women who have made a difference, including our own Estella Lee and Adrienne Dalton of the Te Whangai Trust



The Shorebird Centre is always worth a visit to see the birds, enjoy the displays and chat with Keith or Chelsea. But if you can't find the time to call in just go to our online shop at <https://shop.miranda-shorebird.org.nz/> or ring 09 232 2781 and ask.

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