

Pukorokoro Miranda **News**

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Mysterious gold-spangled visitors

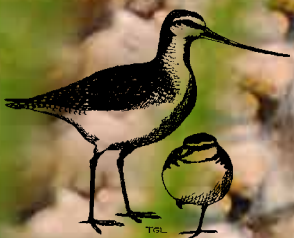
Record numbers of Pacific Golden Plovers are holidaying at Pukorokoro this summer. But where have they come from?



**Storm surge
surrounds
Centre and
hits reserve**

**Grey Plover
pays a rare
visit to
Pukorokoro**

**Waders start
adapting
to climate
change**





CLOSED: A surge of seawater surrounds the Centre at the height of the storm forcing an early end to business, wrecking the water pumps and the freezer in the garage. Photo / Chelsea Rails.

The day the Firth came forth

A king tide, a massive low pressure system and ferocious northeasterly winds blowing down the Firth of Thames, sent a huge storm surge roaring over the coastal plains, flooding the village of Kaiarau, marooning the Shorebird Centre and deluging the Findlay Reserve. **Keith Woodley** reports on the perfect storm of Friday 5 January.

There had been predictions the day before that it would be a nasty spell of weather. The worst of the intense tropical storm was expected to hit us during a period of king tides. It rained and blew through Thursday night and the tide peaked unseen at around 10.30pm, so it was a relief at daybreak to see little sign of its effects. Maybe it wasn't going to be as bad as July 1995, the last time the tide reached the road outside the Centre. But then there came the official word: do not be complacent - the worst is yet to come. So on Friday morning we gathered in the Centre and waited.

When it came it came at speed. By 8.15am we could see waves breaking on top of the beach. Five minutes

later half the coastal paddocks were inundated, and by 08.35 water had reached the road. The wind gusts had also become much stronger. With the predicted peak of the tide still over two hours away our prospects were looking very bad.

We received word that authorities were advising us to self-evacuate, but with water on the road that was no longer possible. Through rattling windows we watched water cascading into Widgey Lake filling it within minutes.

By 9am the centre grounds were under water: more significantly it flowed under part of the building and took out our pumps. The garage and storeroom also had nearly 20 cm of water, enough to ruin the chest freezer. The water

lapping at the bottom of the front steps became the critical benchmark.

There the level appeared to stabilise. Most likely the surrounding farmland was now absorbing the flow, meaning it was no longer rising here - for the moment at least.

I had called the District Council to inform them there were eight of us, that we were unable to evacuate but were likely to be okay.

Our guests were a mother and daughter and two grand children. They sat at a table playing games as the water flowed by outside the window. This would be rich material for holiday reports back in school.

If it was remarkable how quickly the water came, it was no less sur-

Cover: Photo of a Pacific Golden Plover in Alaska in full breeding plumage by Wally Johnson.



CUT OFF: (top) The storm swept away the boardwalk to the Godwit Hide. (below) the bridge ended up sitting firmly on its piles some 70m south. Photos / Chelsea Rails, Jim Eagles

prising how fast it receded from our grounds. I had feared that once over the road, with no clear outlet, it would remain with us. But the porous shell banks upon which this place is built proved to be a blessing.

Not so lucky the surrounding farm paddocks, many of which were still flooded three days later. Seeing water in these paddocks is not unusual of course, certainly not last year when it happened multiple times. But this time it was seawater.

Nevertheless the centre grounds were not entirely out of danger. The water table was now largely salt water so any trees and shrubs were likely to be affected, and over the next few weeks more and more brown foliage was to appear.

As the tide receded, and the rain reduced to gusty dripping, we went out to investigate. Of particular concern was to see how our hides had fared. The road was a mass of tide wrack and logs, distributed in irregular patches, evidence of wave action and its caprices.

Movement caught my eye as a rain-

bow skink sought cover from us. As we advanced down the road they turned out to be common. There were also several convolvulus moth caterpillars, huge and vivid green against the dark wet debris. Most intriguing of all were the legions of mangrove propagules,

perhaps overly hopeful of establishing themselves on the bitumen, or along the edges of Widgery Lake where they also littered the tide wrack.

From the road all three hides were visible and seemingly intact – a great relief given events several years ago,

What's on at the Shorebird Centre

4 March, Farewell to the Birds

11am University researcher Jesse Conklin gives an update of his fascinating godwit work. High tide at 9.30am.

20 May, Annual General Meeting

11am Guest speaker Bruce McKinlay outlines his work as New Zealand representative to the East Asian-Australasian Flyway Partnership which has been of great help to the Trust. High tide at 10.45am.

25-27 May, Drawing Techniques Course with Sandra Morris

Details from the Centre.

24 June, Firth of Thames Wader Census

High tide 10.16am. Contact Tony Habraken 09 238 5284) for details.

18 August, Winter Potluck Dinner and Working bee

10am Working bee. 12.20pm High tide, 6pm Potluck dinner followed by birding trivia quiz.

4-6 September, NZ Dotterel management course.

Details from the Centre.

7-9 September, Photography course with Neil Fitzgerald

Details from the Centre.



AFTERMATH: (at left) the Wrybill Hide was left full of water but was quickly repaired; (right) debris covers the road outside the Centre as the flood recedes. Photo / Chelsea Ralls

Close to the worst ever

How bad was the weather event on 5 January? According to Steve Fabish, Civil Defence Controller for Hauraki District Council, it was close to the worst on record.

Steve said it was due to a combination of the highest king tide of the year at 3.6m, an extreme low pressure system, 'which naturally makes the sea level even higher', and galeforce winds, 'which push the sea straight into the Kaiaua coastline'.

The worst recorded event of this kind, he said, was in 1938 when the sea reached an estimated 3m above mean high water.

The worst in recent years was in 1995, which caused severe flooding in the Hauraki Plains, and that reached 2.4m.

The 5 January event was estimated at 2.8m 'and we think it might well have got close to 3m by the time it hit the Kaiaua Coast'.

not to mention the huge effort that went into creating the two new ones.

We knew, watching the tide approach, that the White-fronted Tern nests on the shell bank would be gone. The Black-billed Gulls fared better, having started earlier. The car park was now a roost of restless adult gulls, accompanied by many well-advanced juveniles and several younger ones.

To the south of the godwit hide was a large object sitting prominently on a bank of vegetation. It took a few seconds to figure out what it was: the boardwalk, still intact, resting 70 metres south of where it was yesterday.

The new trail was largely intact, although some of the edges had been gouged out, and the surface was pitted and uneven. It ended abruptly before a deep channel of receding tidewater on the other side of which sat the Godwit Hide.

We waded along the trail to the Wrybill Hide. It was slightly askew but apart from piles of shell in and around it, otherwise sound.

We walked back down the beachfront to the Godwit Hide. Lying on

top of the bank was one of our interpretation panels, still in one piece and attached to its two supports. The northern (uncovered) screen was gone, the southern one wrapped around parallel with the end wall. Inside were piles of shell and upturned benches. On the mud in front were wrybill and gulls going about their normal business. Not quite so normal were the five gannets investigating the bay in front of the hides: a highly unusual species to see inside the shell bank.

The trail beyond the Wrybill Hide was covered in debris and silt. A huge hole had been gouged out of the start of the trail to the Stilt Hide, which sat in a pool of water. This turned out to be the level of the Stilt Ponds.

Much of the trail back to the centre was shin deep in water, with exposed areas a mass of slippery silt. Another interpretation panel had been uprooted, but this too was still intact. Fence lines were heavily shrouded with debris, including here and there enormous logs. A 30 cm eel swam ahead of us up the trail.

On Saturday began the recovery



ADAPTABLE: (top) Birds take refuge from the storm in the car park; (bottom) Black-billed Gulls, which have seen this sort of thing before, quickly return to their roost on the shellbank. Photos / Chelsea Ralls, Ray Buckmaster

process. Power had been restored overnight and, apart from several more brief outages, remained reliable.

A visit from Ngatea Milking Co. on Saturday morning gave us a temporary pump, and by Monday both hot water cylinders under the units were back in operation.

By Tuesday we had two permanent pumps in place, which left just one remaining hurdle, albeit a significant one - getting the septic system emptied. We joined the queue that included most permanent residents of Kaiua and were fortunate to have our tank sorted by late Tuesday morning.

This meant the centre was back in full operation. We were most gratified at the speed with which this was accomplished, especially as there was a huge deadline looming: the start of the annual field course.

Meanwhile the weekend clean up included emptying the garage and storeroom and clearing out the film of silt coating the floor, lower shelves and the freezer. We needed to replace the freezer, but apart from that we lost nothing of real importance. What we

did gain was a spacious garage and de-cluttered storeroom.

The trail to the hides, however, was a different matter. When we had walked back to the centre on the Friday afternoon we waded most of the way in shin deep water, which proved to be relatively easy going.

A few days later the water had gone but a fine silty and very greasy residue remained, making walking a precarious business. This meant the trail needed to remain closed.

Informal conversations with council staff, road contractors and DOC staff soon resulted in a recovery plan. Several truckloads of shell from recovery operations up the coast were deposited at the start of the track. DOC Thames staff then laid it out over the trail, while also repairing the major holes in several sections of trail.


A week after the storm, a technician from the company that built the new car park trail last year was back on site to assess the damage. From this came a recovery plan to repair the trail and reinstall the errant boardwalk. All going well it is hoped to have this done

by early February. We are grateful to Living Water for organising this.

This was a very significant weather and tide event. While the centre emerged relatively unscathed, Kaiua and surrounding farmlands have taken a massive hit.

I must record here how impressed I was by the prompt and comprehensive response by Civil Defence and Hauraki District Council – both in the immediate aftermath of the flood, and the days following.

I was also extremely grateful to have a very good team on hand during that eventful Friday and its aftermath. My thanks go to Chelsea Ralls, Dai Stacy and Jo Jo Doyle. Gillian Vaughan and Ian Southey joined us for the garage cleanup, as did Trust member David Cornick who was staying at the time.

Meanwhile, Adrian Riegen had arrived down early on the Saturday to assess damage to the hides. He disappeared with a shovel and hours later the surrounds of Godwit and Wrybill hides had been levelled and both were ready for use. 



STORM-TOSSED: (from left) A Grey Plover and a Fairy Prion.

Photos / Gabriel Buissard, Sabine's Sunbird.

Storm delivers several rarities to Pukorokoro

Recent sightings at Pukorokoro

Arctic Migrants

7100	<i>Bar-tailed Godwit</i>
1870	<i>Red Knot</i>
129	<i>Pacific Golden Plover</i>
14	<i>Sharp-tailed Sandpiper</i>
13	<i>Ruddy Turnstone</i>
2	<i>Red-necked Stint</i>
1	<i>Curlew Sandpiper</i>
1	<i>Grey Plover</i>
1	<i>Little Whimbrel</i>
1	<i>Far Eastern Curlew</i>
	<i>Arctic Skua</i>

New Zealand species

2000	<i>SI Pied Oystercatcher</i>
650	<i>White-fronted Tern</i>
590	<i>Black-billed Gulls + chicks</i>
450	<i>Wrybill</i>
30	<i>Banded Dotterel</i>
3	<i>Gannet</i>
1	<i>Royal Spoonbill</i>
1	<i>Glossy Ibis</i>
	<i>Banded Rail + 3 chicks</i>
	<i>Caspian Tern</i>
	<i>Pied Stilt</i>
	<i>Hybrid Black Stilt</i>
	<i>New Zealand Dotterel</i>
	<i>Variable Oystercatcher</i>

Major storms may engender mixed feelings. On the one hand is the potential for disaster, while for the birder there is the prospect of rarities, or merely regular birds turning up in irregular locations.

Shortly after the January storm a gannet was brought in to the Centre. Exhausted when found on the Hauraki Plains at Mangatarata, the vigorously snapping bill now suggested energy had been restored so it was taken up to Taramaire for release off the beach. The next day a Giant Petrel was brought in from Back Miranda Road. It too was taken to Taramaire.

A week before the field course a birding tour visited the Centre. As we were still closed it was a briefer visit than usual, but long enough for a client to report seeing a Grey Plover. I said that would be highly unusual for here, at which he described the bird flying overhead displaying its black 'armpits'. This diagnostic field marking for the species clearly made it a good sighting.

However, still being in post-flood recovery mode, I thought no more about it. So when a report came in two days later of a Grey Plover outside the hide, the record finally made its way to the wider birding world. It was still present during the field course when all participants got to see it. This is the first record for Pukorokoro Miranda since January 1991. Two other rarities to appear, albeit briefly, during the course were a Little Whimbrel and a Black-tailed Godwit.

But storms and rarities aside, this season will go down as the Year of the Golden Plover. Usually we may get up to 50 of these enigmatic tundra breed-

ers in a good year. Enigmatic because we know so little about 'our' birds or where they come from.

In early November Trust member Peter Fryer came up from Taranaki to assist with the second stage of hide building and to do some birding. He counted 93 Golden Plovers, which was an astonishing number. Over the next few weeks the maximum counts increased to a total of 129, many of which appeared to be juveniles. Down at the hide or walking along the shoreline I am used to the common birds being present, the ones that wherever you look always seem to be in view: godwits or stilts, Wrybill or gulls. To have these replaced by Pacific Golden Plovers is just extraordinary.

Miranda Field Course activities were marginally affected by a second storm centred to the west of the country. This system brought a return of gusty north easterlies down the Firth, which resulted in one of our wader watch sessions being side-tracked. A bluish grey bird with a white belly flapping erratically up the channel between shell bank and hides drew attention away from the massed flock of godwits and knots roosting on the mud.

It was a Fairy Prion that should have been, at the very least, flapping above the white caps outside the shell bank. Which is where other birds were then spotted – several more prions, Cook's Petrels and a Buller's Shearwater. For course participants it was a break from shorebirds: for the indifferent sailor, an admirable way to watch pelagic birds from a foundation that remained motionless.

Keith Woodley

China clamps down on coastal development

China has introduced tough new regulations on land reclamation along the country's coastline – and specifically in the Bohai Bay area so crucial to our Red Knots - vowing to get rid of illegal reclamations and stop approving general reclamation projects.

In a move which chair Gillian Vaughan described as 'a huge positive' and manager Keith Woodley as 'splendid news', the State Oceanic Administration announced several moves aimed at improving the marine environment.

These include:

- Demolishing all illegal reclamations.
- Shutting down illegal waste discharge outlets.
- Closely monitoring legal sewage outlets.
- Axing reclamation projects that have been approved but have not started and do not comply with the current policy.
- No longer giving annual land reclamation quota to provinces.
- Prohibiting reclaimed land being used for commercial real estate development.
- Banning all reclamation activities in the Bohai Sea area.
- Confiscating reclaimed land that has remain deserted for a long time.
- Removing the power to approve reclamation projects from lower authorities and administrators (many of whom are said to have behaved improperly).
- Sending special inspectors to coastal provinces (the first six to be inspected have already been cautioned over reclamation projects and coastal pollution).

The announcement is the latest in a series of steps taken by China to protect the coastal habitat, including giving greater protection to reserves in areas like Yalu Jiang and Bohai Bay, and nominating 14 key bird sites for World Heritage status.

Coastal restoration

The storm that battered the Shorebird Centre and the Findlay Reserve has also meant a re-think of plans to restore the coastal strip from Pukorokoro to Taramaire.

The surge of saltwater which swept across the area has killed off quite a lot of vegetation, changed the shape of the land and created pools of water in new places.



HELPING HANDS: Rangi Rawiri, from Ngati Paoa, releases a South Island Pied Oystercatcher during last month's Field Course. PMNT offered a place on the course to someone from Ngati Paoa, as part of its desire to build a strong relationship with our tangata whenua, and was delighted when it was taken up. Rangi said the course was 'really cool' and enjoyed the chance to be involved in banding. Unfortunately, due to misfiring cannon, very few oystercatchers were caught but despite that, and the storm, the course was another success. Meanwhile Ngati Paoa, in turn, invited the Trust to take part in the annual Waitangi Day commemorations at the marae and talk about its work on behalf of shorebirds. Photo / Jim Eagles

Manager Keith Woodley said he hoped the first planting would still be able to start this May 'but we will have to survey the area again and rethink what needs to be done'.

Two Migratory Bird Days

World Migratory Bird Day is to be held this year on 12 May and 13 October.

There are two dates because World Migratory Bird Day, which started in 2006, and the International Migratory Bird Day, which was initiated in 1993, are being combined into a single campaign.

You can find out more about it at www.eaaflyway.net/a-change-for-world-migratory-bird-day/

Development on hold

The proposal, for PMNT to work with Ngati Paoa, Te Whangai Trust and Gary and Adrienne Dalton, assisted by funding from Living Water, to restore some 50ha of land at Pukorokoro as wetlands and to erect a training/memorial/information centre, is still being worked through.

All the parties, including PMNT, have recently started meeting with a facilitator to discuss the different groups' aspirations and reservations and seek to resolve any differences.

Meanwhile, Living Water is proceeding with the resource consent process which needs to be in place by the October settlement date.


Cycle trail

The Kopu to Pukorokoro leg of the Hauraki Cycle Trail was officially opened on 18 November with dawn ceremonies at each end. About 20 people attended the Pukorokoro opening which was held in the car park at the Findlay Reserve.

After the storm the section from the Miranda Hot Springs was closed by flood damage but should be open again shortly. Funding for the remaining leg to Kaiua is not yet available but the cycle trail people are confident it is not far off.

Meanwhile, Auckland Council is developing plans for a Kaiua-Clevedon cycle trail on the largely roads in the Hunua Ranges Regional Park.

New head for EAAF

Lew Young has been appointed as the new chief executive effective of the East Asian-Australasian Flyway Partnership. Lew is well known to birders as WWF manager of the Mai Po Nature Reserve in Hong Kong from 1991-2008. More recently he has been senior regional advisor for Asia and Oceania for the Ramsar Secretariat, based in Gland, Switzerland, since 2008. 



THIEVES BEWARE: A security camera has now been installed above the carpark at the Findlay Reserve. There have been fewer thefts from cars so far this summer and it is hoped that the camera, along with existing steps such as asking visitors to close the gate behind them, will remove the problem altogether. Photo / Jim Eagles

The new legend of the adventurous Kuaka

Educator Krystal Pennell has enjoyed some inspiring experiences during her time as the Shorebird Centre's educator, which finished recently, but she particularly enjoyed this myth story written especially for us by a visiting nine-year-old from Randwick Park School in Manurewa.


When Tane Mahuta was creating the birds of the forest Kuaka was one of his favourites. But Kuaka loved to spend most of his time with his Uncle Tangaroa. He was the chief of a whole flock of birds and loved to tell stories and go exploring.

But then one day Kuaka got really sad because he had no more stories to tell, so Tane told him to close his eyes and stand still. Tane put a stone in his throat and told him to fly the distance around Hawaiki nui, Hawakii roa and Hawaikii Pamamao. He told him to make sure he didn't accept any kai from strangers and if he got tired to call on his Uncle Tangaroa to support him. Tane also said that Kuaka was to return home when the sun was its brightest but the stone would help him find his way.

So Kuaka set off on his journey but before he left he placed half of his heart in the sands of the Parengarenga Harbour where the kuaka land each year. When he travelled he saw lots of really amazing things and noticed that the people of each place only spoke Maori. Kuaka flew for days and days but he got tired so he called on Tangaroa to help him. So Tangaroa raised a massive

sandspit where kuaka could land and that sandspit is actually in Osaka in Japan.

When he got there he saw birds that looked just like him and met a female kuaka. He fell deeply in love with her and then they became a sweet couple and began to raise a whanau. When time passed he felt the stone pulling in his throat and he knew he had to go home. So he asked his wife to come with him but she said no because she wanted to take care of the old kuaka in their village. So Kuaka said why don't we all go back to Aotearoa together and his wife agreed. Before his journey home he took out the other piece of his heart and buried it in the sands in Osaka because he believed his heart belonged in two places. After that they flew into the air to test if the winds were strong enough for the flight and when a big gust of wind came the whole flock took flight and started the journey home to Aotearoa.

For Maori people the kuaka represents a change in season, it means it is summer, it represents aroha and when they return it's a time to share stories and be with your whanau. The kuaka is also an intelligent bird that shares matauranga wherever they go. 



A FLOCK OF GUIDES; Enjoying a laugh together are (from left) Jo Jo Doyle from the US, Dai Stacey from Wales, Trudy Lane from Miranda and Emilia Lai from Taiwan. Photos / Keith Woodley and Chelsea Ralls.

Migratory guides to point out migratory birds

Visitors to the hides this summer have been shown around by a flock of shore guides flown in from nearly as far as the waders they've been pointing out. **Chelsea Ralls**, the new centre assistant, who has also filled the shoreguide role and hails from nearby Paeroa, reports on what a great team they've been. Photo / Chelsea Ralls

It's been such a fun start to the summer season and I attribute a lot of that to the incredible team at the Shorebird Centre with us this year.

Emelia Lai, from Taiwan, fitted in with the team seamlessly. She was a wealth of knowledge for visitors and the Centre, having studied waders for her Masters degree, and arriving at the Centre after 15 months at the Broome Bird Observatory. Emilia has moved on but still thinks about 'when all the guests left, tranquility reigned, enticing the ducklings to walk onto the lawn, and in the complete peacefulness I kept wondering how this place could extend its influence to China and North Korea in such a knotty world.'

Trudy Lane, has a lot of history with the Trust, through her family connections with the land and time on the PMNT Council. As this season's official shore guide she was excited by the chance to learn more about the birds by spending time at the hides with visitors. Trudy says she 'is thoroughly enjoying being part of the team, especially the United Nations-like array of people who come through and visit our family's former beach paddock'.

Jo Jo Doyle, who joined us again from Vermont in the USA, has not only done lots of volunteer guiding but also started what we are hoping will be a regular series of interesting and educational training sessions with the

team. The first was about identification of cat scat, based on her experience of monitoring animal tracks in North America.

Finally, we welcomed Dai Stacey back from Wales for his third summer volunteering with us, fitting right back in like it's another home for him.


We've all enjoyed the adventures we have together, the on-site and off-site staff meetings, visits to the shellbank to check on the terns and gulls, and a post-storm walk through the debris to survey the damage. Regardless of the circumstances they're always filled with stories and laughter.

Our visitors all seem to love our team too. They're regularly praised for being helpful, knowledgeable and enthusiastic, making for great experiences out at our hides and in the Centre. PMNT members can be very proud!

But it's not just fun and games, we've been working hard too. Ann and Ray Buckmaster and Trudy, with help from Jo Jo, Chelsea and lots of others, are enjoying ramping up the Facebook presence. Emilia provided some excellent GoPro footage of the godwits escaping from a harrier.

We have been looking into the two websites we use for our high tide times, and comparing these to the actual times we are seeing at the hides, which vary quite significantly. We are hoping to more accurately predict the tide

times and share these online and with our visitors for the best bird viewing.

It was a busy start to the summer season and even at Christmas. Unfortunately the storm disrupted business for the start of this year but we are now starting to see the big visitor numbers return back as people come to see and learn about these incredible birds. 



UNUSUAL TIGHTS: Emilia Lai admires her new muddy leggings during a shoreguide bonding session.



ON HOLIDAY: Pacific Golden Plover in various stages of moult at Pukorokoro two years ago. Photo / Ray Buckmaster

Record number of golden birds

The number of Pacific Golden Plover seen at Pukorokoro-Miranda this summer may be the most ever recorded here, a development which will hopefully help inspire more research on where they come from, writes **Jim Eagles**.

As we wandered from the Findlay Reserve car park to the hides we made the usual stop, beside the information panel telling the tragic story of the Pukorokoro village, and glanced across the mudflats that sweep south. Often at this time of year there are a few Pacific Golden Plover feeding out there and sometimes a Whimbrel doing a mysterious dance in the grasses on the other side.

On this occasion the Whimbrel was absent but there were plenty of plovers to be seen. These are arguably the prettiest of the Arctic waders that fly south to enjoy our summer, especially when they are in their black, white and golden breeding plumage.

We set up our scopes and started counting. There were 38 of the birds feeding on the mud, within the range of the numbers usually recorded at Pukorokoro Miranda in recent years, which vary from 20s to 50s.

But then my scope drifted across the small grassy peninsula sticking out into the mudflats and suddenly there were a lot more of those elegant, rounded, golden heads to be seen, dozens of them, popping up above the *Sarcornia* and grass, then dropping down again, making it very difficult to count. Eventually we agreed on 41 making an overall tally of 79. Very impressive.

But back at the Shorebird Centre it turned out that was only part of the golden plover story because the black-

board recorded a total of 93. 'That's the biggest number we've had for a few years,' said manager Keith Woodley from his spot behind the counter. 'It may even be the biggest ever. I'll have to check.'

Then a few weeks later volunteer shoreguide Jo Jo Doyle recorded 129 of them and added, 'I'm sure there are more because I saw a few more at the Stilt Hide after counting at the Godwit Hide.'

In an age of declining bird numbers that was all encouraging news. And, in fact, the International Union for the Conservation of Nature does classify the Pacific Golden Plover as being of Least Concern, mainly because the worldwide population is so large: c190,000-250,000. It's possible the population is declining but the IUCN says trends are unclear so the overall pattern is unknown.

Although it's the fourth most common of the Arctic migrants to visit New Zealand, the number of plovers coming here is pretty small. Since 2005 the national count has ranged from 64 - 301. a year, with very few overwintering. They are usually found in flocks of 10-50 in harbours, estuaries and the odd lake, so to have 129 at Pukorokoro is quite something.

Not only are they beautiful birds, a joy to watch, they possess the added attraction of being surrounded in mystery because we still don't know where

they come from.

Pacific Golden Plovers breed in a big chunk of Siberia and Alaska on either side of the Bering Sea. In June they lay four eggs in shallow lichen-lined nests scraped in the tundra, and when the chicks emerge about a month later they are generally cared for by both parents. Then around August-September, and sometimes October in the case of juveniles, they head south to a vast spread of wintering grounds from southern Japan and the Hawaiian Islands in the east, through Australia, New Zealand and the islands of the South Pacific, to India and northeast Africa in the west. They arrive here September-November and depart March-early April.

NZ Birds Online calls them 'this beautiful gold-spangled plover' and, as you can see from the photos, when they're in breeding plumage the crown, nape, back, upper wings and upper tail are densely spangled with gold, black and white, set off dramatically by a white stripe from the eyebrow down the neck and along the side, a dense black front and dark orange legs. Post-breeding the plumage gradually turns to an attractive apricot-buff colour but often still with areas of the black and gold speckling present.

Even the call is quite beguiling, a series of slow, slurred whistles, which echo across the mudflats, while the flight call is a clear, melodious shu-eeet.



AT HOME: (at left) A Pacific Golden Plover on the nest near Nome in Alaska; (at right) a plover chick. Photos / Wally Johnson

These plovers rely on their big eyes to spot signs of food, moving in short, sharp bursts to seize unwary small crabs, marine worms, insects, larvae, spiders, earthworms and molluscs, which they apparently supplement with energy-packed berries during the breeding season on the Arctic tundra.

It's long been known that these plovers move between the Arctic and the sun-kissed islands of the Pacific. They are said to have helped early Polynesian navigators to locate Hawaii and in 1778 Captain James Cook observed them flying off the coast of western Alaska in autumn and pondered, 'Does not this indicate that there must be land to the north where these birds retired in the proper season to breed and were now returning to a warmer climate.'

But the actual routes they followed were largely unknown until quite recently when a major research programme was launched making use of modern technology.

In 2009, a team led by Wally Johnson of Montana University, the leading authority on Pacific Golden Plovers, fitted geolocators to birds caught in Hawaii, where many thousands winter, and recorded them flying fairly directly to their breeding grounds in Alaska and back again (see top map at right).

The following year Johnson's team put geolocators on birds in American Samoa, Saipan and Nome in western Alaska. They were able to track those from Nome and Samoa making an annual, triangular, clockwise journey around the Pacific (see middle map).

As Alaska cooled, the plovers headed south via the Mid-Pacific Flyway, with the Nome birds going to Christmas Island, Marshall Islands, Gilbert Islands, Fiji and Fraser Island off the Queensland Coast, while the Samoan birds returned to Samoa. In spring they flew northwest from their various islands to Japan (the Fraser Island bird going via Taiwan) where they made stopovers averaging three weeks. Then they went northeast to spend the northern summer back in Alaska.

The Saipan birds mostly followed the East Asian-Australasian Flyway, with stopovers in Japan and elsewhere in Asia, before continuing on to nest sites in Chukotka and Kamchatka in Siberia. In the northern autumn they flew back the same way.

Over the next couple of years Johnson's team, working with our Russian friend Pavel Tomkovich, put geolocators on plovers caught in Chukotka to see where Siberian birds fitted into the mix.

When autumn arrived the four birds tracked first made short pre-migratory flights, to places like Kamchatka and Alaska's Pribilof Islands, either side of the Bering Sea. Then they headed south, stopping over in Japan, Taiwan and northern China, and spending their northern winters variously in China, Phillipines and South Korea. Come the northern spring they flew back to their nesting grounds in Siberia by roughly the same routes (see bottom map which only shows the northward flights).

One significant discovery from the geocator tracking is that, unlike most



FLIGHT MAPS: Migration routes of Pacific Golden Plovers from Hawaii (top); Alaska and Samoa (middle); and Siberia. Maps / Wally Johnson



GOLDEN GIRLS: (from left) Pacific Golden Plover in flight in Hawaii; a beautiful portrait of plovers by Dorothy Pashniak who grew up on the Hauraki Plains and went to Te Aroha High but now lives in Cooloola Cove, Queensland, where she takes bird photos from a kayak. Photos / Jim Denny. Dorothy Pashniak.

other Arctic migrants, these plovers seem to avoid the fast-developing Yellow Sea, which is probably a key factor in their fairly healthy population.

However, while all this research has been very revealing about the amazing long-distance flights of these birds, since none of the plovers tracked came to New Zealand, and there aren't any records of plovers with bands being seen here either, there still isn't any evidence of where our birds come from.

The best hint we've got so far is that the available records suggest the plovers that visit our nearest neighbours, including Fiji, American Samoa and, most notably, southeastern Australia, come from Alaska.

These include the Alaskan bird with a geolocator going to Fraser Island, a bird tagged in the Pribilof Islands being recovered in New South Wales, five birds banded in Nome sighted in Queensland, plus a morphometric study of Pacific Golden Plover in Victoria concluding that the birds there breed in Alaska. Indeed, apart from a bird banded in Siberia being seen in Darwin (more than 5000km from New Zealand) for two successive seasons, the records from across the Tasman,

all point to Alaska.

In his *Shorebirds of New Zealand*, Keith Woodley outlines an intriguing theory which might confirm that Australian and New Zealand birds are part of the same population.

Keith notes that in the Pacific islands golden plovers seem well-adapted to sharing the landscape with humans, having been reported feeding happily in pastures, tilled land, burned fields, golfcourses, playing fields, cemeteries, residential lawns, roadsides and airfields, as well as mudflats, estuaries, shorelines and beaches.

By contrast, he adds, 'in New Zealand and eastern Australia . . . far from being seen on pavements and lawns, they are among the most shy and wary of the shorebirds found here. They are more likely to be seen – and often only from a distance – foraging on mudflats, saltmarsh, amid tidewrack on beaches, and sometimes in pasture. This strongly suggests that Pacific island birds and those found in New Zealand are most likely from separate populations.'

However, Wally Johnson is sceptical. 'I don't know how to account for the difference in behaviour, but I tend to view it as indicating a range


of individual variation in response to suitable habitats. I've seen nothing in the north that would suggest shy versus tolerant populations.'

As to where the birds that reach New Zealand come from, he says: 'I suspect your plovers are of mixed provenance . . . given that there's clearly a mix of Siberian and Alaskan birds across the Pacific south of Hawaii.'

That said, Wally also thinks it's an interesting question. Maybe, he hopes, this article might prompt New Zealand birders to look more closely at Pacific Golden Plovers for bands. 'Could be one of our birds from Nome might show up. Our birds are variously color-banded: one or two colors plus a metal band. Almost any PAGP wearing bands will be mine.

'Maybe we should think about doing some tagging there and track your birds. The new GPS pinpointers would be ideal since they don't need to be recovered like geolocators.

'If there's interest at Miranda maybe we should get together and plan something!'

There is, of course, much interest, and we're hoping to see Wally here next year. 



From the Chair

Taking action does matter

Chair **Gillian Vaughan** emphasises that actions matter, whether they be big and global or small and local, and together they can produce big wins for conservation.

Jane Goodall said once, ‘People say think globally, act locally. Well, if you think globally, it is overwhelming and you do not have enough energy left to act locally. Just act locally and see what a difference you can make!’

On the second day of the Field Course this year we were notified that the Chinese government had issued a statement stopping commercial reclamations in the Yellow Sea, and specifically halting further reclamations in the Bohai Bay, the area our Red Knots use. There are some caveats but it’s a huge positive announcement for shorebird conservation in the Yellow Sea.

The work of a lot of people, organisations and governments has gone into this statement. PMNT members have been some of those people.

Every year for more than 40 years members of PMNT have acted. Sometimes those acts have been global, sometimes those acts have been local, and sometimes those acts have been pulling weeds in the garden and cleaning the light fittings at the Shorebird Centre. But people have acted, and those actions have contributed to this conservation win. There’s always lots of work still to do, and there are always caveats, but stop for a moment before moving on and enjoy this.

I volunteered to put together the log book for this year’s Field Course. In the past one of the participants has done the job and every year it has got fancier. The people who have done the collating have done such a good job that it’s now at the point where the job is so intimidating that last year no one took it on.

So this year I volunteered but with the proviso that I want to take it back to basics. Find a way where it can become more accessible again. Find a way to allow others to act.

Finding a way to allow everyone to act has been something on my mind a lot lately. We have some amazing people involved in the Trust, both on and off Council, people who work with us formally and informally.

One of the strengths of the Trust is that we have people who will lead



ACTION NEEDED: Whether its stopping further reclamations at the Bohai Sea Wall (above) or cleaning out a flooded garage at the Shorebird Centre it all helps conservation.

Photos / Adrian Boyle, Jo Jo Doyle




projects, who will say, ‘I’m doing this cool thing, follow me’. But although we celebrate and enjoy those huge fancy projects, like shorebird surveys in North Korea, I hope that they aren’t intimidating people, stopping them from acting on their own projects because they might seem smaller in comparison. I’d like the Trust to be a place where everyone can be on the team, we need to be a place where actions are taken at local as well as global levels.

The start of 2018 has been an interesting one for the Trust. Floods have caused damage and we’ve almost certainly lost income from being closed at one of our busiest times of year. The community within which the Trust sits has also been damaged. And yet the

community was amazing, Hauraki District Council was incredibly useful, the resilience was remarkable . . . and we were still able to run the Field Course.

As a result we managed to get information out to a new group of people on just how complex, connected and downright cool our area is. And in China we got a conservation win.

Ups and downs, but a clear message: it can be quick or it can take a while, but taking action does matter, whether it’s the big global stuff or the little local actions.

Finally, I’d like to acknowledge the passing of Jocelyn Lane. The Lane family has been a very important relationship for PMNT, and Jocelyn has been a key part of that. Our thoughts are with her family. 



CAUSE AND EFFECT? Carbon pouring into the atmosphere, in this case (at left) from a flare-off in the Ecuadorean Amazon, is probably responsible for the extinction of the Bramble Quay Melomys (at right).

Photos / Ray Buckmaster, State of Queensland.

How far can birds adapt to climate change?

Climate change has probably already claimed its first victim but there are signs that migratory birds are already starting to adapt to meet the challenge. **Ray Buckmaster** hopes they can evolve fast enough to survive.

Climate change has been described as a slow-moving train wreck, with earth's passengers largely unaware of the catastrophe that lies ahead. It's an oft repeated phrase that first saw the light of day some 30 years ago consequent on the first international conference on the topic.

As if to prove the point, 10 years later the United Nations finally conceded to 'a discernible human influence on global climate'.

Finally, last year, 170 countries, producing 87% of the world's greenhouse gases, agreed to work toward limiting temperature rise to 1.5°C above pre-industrial levels. A two-pronged approach of transition and mitigation was adopted. Countries involved are pledged to contribute \$100 billion annually to help developing countries deal with climate change while at the same time implementing their own programmes. A global taxation system is intended to put some financial value on the environment, rewarding mitigation and penalising CO₂ producers.

Climate change impacts on the human environment in many ways. Data from NASA satellites show an average sea level rise of 3.4 mm a year since 1993. It's estimated that such factors have the potential to cut global GDP

by 20% by the year 2100 and cause massive re-locations of population, particularly in South East Asia.

But, of course, it's not only humans who will be affected. A decade ago the World Wide Fund for Nature released a report entitled, *Bird Species and Climate Change*, which thundered in its introductory paragraph, 'Climate change is emerging as the greatest threat to natural communities in many, if not most of the world's ecosystems in coming decades with mid-range climate change scenarios expected to produce greater extinction rates than habitat loss . . .'

As far as we know, climate related bird extinctions have not yet occurred. The only recorded extinction to date is of the only mammal to live on the Great Barrier Reef, the Bramble Cay Melomys, or Mosaic-tailed Rat, has not been seen since 2007 despite intensive searches.

Recent analysis of nearly one million citizen science observations of common song birds from Europe and the USA, gathered over many years, has been very revealing. These long-term data sets show that climate change has advantaged some species whilst others have been losing ground. All these northern hemisphere species are extending their range northward

and withdrawing from the southern most parts of their range. For those with a more northerly distribution the Arctic seas put an end to further northerly shift and their populations are static or falling as their ranges shrink.

In Britain, migratory songbirds have advanced their egg laying date by two days for every 1°C of temperature rise, so they are adjusting. But not quite enough because the spring invertebrate population boom these birds depend on to feed their young has advanced by six days for every 1°C rise. Some members of migratory species have even given up migrating to become permanent residents.

A particular problem for migrants is that climate change is accentuated in the Arctic and it has been calculated that temperature rise there could be greater by 2.2-2.4 times that of the temperate regions come the end of this century. This Arctic amplification has already resulted in a significant timing mismatch for Arctic breeding migrants like the Red Knot.

For these long-distance migrants, all the evidence suggests an overwhelming genetic influence on both time of departure and migratory route, and day length variation, rather than temperature, is the cue to leave their overwintering grounds.

Clearly these birds need to leave earlier in order to arrive on the breeding grounds at the new optimum time.

Hopefully the process of natural selection will be able to deliver sufficiently on this over time. The challenge, however, is great. What has been noted for two species of phalarope and sandpiper that nest in Alaska is a 4-7 day advancement of egg laying over the nine-year period of study.

A further challenge is that oceans are a sink for both the increased energy trapped in the atmosphere and its carbon dioxide. Water expands as its temperature rises adding to sea level rise. For shorebirds that feed in the inter-tidal zone sea level rise could become problematic.

The impact of ocean acidification resulting from the absorption of higher levels of CO₂ is less obvious. Work on the food species of the rufa sub-species of the Red Knot indicates that increased acidification has considerably decreased both the size and population density of the varied clam species it feeds on.

These results come from both Tierra del Fuego and Ontario. Waters in both locations have decreased amounts of aragonite which clams need to build their shells. While the solubility of aragonite decreases with increased acidity, it is not possible to point the finger directly at climate change. Ocean acidification is also enhanced where rivers discharge into the sea and the Firth of Thames is a prime example of this.

Combating this is complicated by the fact that CO₂ molecules remain in the atmosphere for hundreds of years during which time heat energy will continue to be trapped and contribute to sea-level rise.

The good news is that there are signs we may have reached 'peak carbon'. Until 2014 increases in the world's economy was being matched by increases in its use of fossil fuels. But since then emissions have stabilised while the global economy continues to grow.

That is encouraging because to achieve the goal of zero net emissions by 2050 the amount of carbon

generated has to equal the amount going into carbon sinks. However, that underlines the need to preserve and enhance those carbon sinks, that don't, unlike atmospheric and oceanic sinks, contribute to climate change, and therein lies another problem. A rough estimate is that industry contributes 88% of the carbon going into the atmosphere and land use change 12 %.

Around the world carbon is sequestered in mature forests, permafrost regions and wetlands, both coastal and otherwise. Peatlands generally store up to five times the carbon of a tropical forest and are the cheapest way to store carbon by an order of magnitude. If you drain them for agricultural purposes they change from a sink to a source. Indonesia has 65% of the earth's peatlands and the forests they support are being replaced by oil palm plantations at a rapid rate.

Sequestered in Arctic permafrost soils is half of the global soil carbon. It is equivalent to twice the amount found in the atmosphere. A recent in-situ soil warming experiment demonstrated that, although plant growth increased, soil carbon fell due to increased activity of soil microbes. Should this experiment reflect future reality, runaway climate change is a possibility. Increased CO₂ levels raise global temperature, which in turn ac-

celerates CO₂ release, which in its turn leads to . . . well, Hollywood disaster movies feature exaggerated versions of this scenario.

Around the world scientists working on coastal mangroves, seagrass beds and saltmarsh have drawn attention to the significant amounts of carbon being stored in these ecosystems. In 2009 they developed The Blue Carbon Initiative to encourage management of these systems to mitigate climate change.

Coastal habitats make up only 2% of the total ocean area but store 50% of ocean (or blue) carbon in their sediments. The rate of loss of these habitats around the globe is occurring at a greater rate than on land. PMNT, now has its own saltmarsh/wetland and is actively involved in preserving and enhancing it whilst engaging in remediation of the wider coastal strip with other stakeholders.

So, what does the future hold? The transition to clean energy economies has gathered considerable, maybe un-stoppable, momentum. Mitigation measures, such as New Zealand deciding to plant one billion trees over the next 10 years will help to remove some of the atmospheric carbon generated by the use of fossil fuels during the transition to zero carbon.

Of all the birds, long-distance migrants seem to be most at risk from climate change. But they have already made huge adjustments in a very short time.

We shouldn't forget that during the period when our bird and mammal species evolved they have survived considerable climatic change. For instance, during the last Ice Age a 3.2-4.8°C fall was experienced. Going back 55 million years, the earth was totally glacier-free, even at the poles, and the world was 8°C warmer than now, considerably exceeding anything being currently predicted.

So there is room for optimism, despite all the other pressures birds around the world are under. Nevertheless, the need to be pro-active on climate change remains an imperative. The train wreck is not inevitable . . . but it is looming.



Nancy Payne: the oldest person to complete the Field Course



Nancy Payne, who had the distinction of being the oldest person to complete the Miranda Field Course, aged 83, has died in New Plymouth

at the ripe old age of 93.

She was a longstanding member of the Pukorokoro Miranda Naturalists' Trust and until she moved to Taranaki, was a regular attendee at open days and Annual General Meetings.

Nancy was raised in Clevedon and settled in Papakura where she raised a large family. In later years she moved to Taranaki to be close to one of her sons but remained extremely active.

While I can remember many discussions with Nancy over the years, it was some time before we made the connection that I went to High School with one of her sons. That gave us a special bond in later years.

Nancy was active in many organisations including the Auckland Entomological Society, Railways Enthusiasts Trust, Forest & Bird, where she gained an old Blue Award, Pukeiti Rhododendron Trust and Ducks Unlimited, as well as PMNT. In all of these organisations she was no mere participant but actively ran events and activities.

Indeed, among those who attended her funeral was John Cheyne, president of Ducks Unlimited, who acknowledged her huge contribution and left a DU cap on the casket, which Nancy was wearing as she was laid to rest in Inglewood Cemetery.

Once her children had left home she decided to complete a Bachelor of Arts degree at the age of 63. Twenty years later she signed up for the Miranda Field Course and fully participated in all of those activities.

We will miss her ready smile and her encouraging words.

David Lawrie

Michael John Taylor: a lifelong ornithologist

Michael Taylor was born on 18 June 1936 and grew up at Tadcaster, North Yorkshire, where his father was a chemistry teacher. With woods and farmland close by, Michael early on developed a love of the outdoors. An influential gift for his eighth birthday was *Bird Book for the Pocket*, which gave him his initial grounding in British birds. He was a collector of birds' eggs who had reservations and took only one egg from each nest.

Michael won a scholarship to enter Jesus College, Oxford, to study chemistry, and later became a National Research Council Post-doctoral Fellow in Ottawa, Canada, in 1961-1962.

While in Britain, he met Christine Margaret Baker, a New Zealander (and a descendant of the pioneering missionary Rev Charles Baker) and they married in 1964. After moving to New Zealand, Michael served from 1966 until retirement in 1996 as lecturer, senior lecturer and associate professor in the Department of Chemistry at the University of Auckland.

Chemistry was his profession, but he had other strong interests, most notably bird-watching. Michael was a dedicated member of the OSNZ and a regular presence at Auckland meetings and field trips for 45 years. He served as the society's representative on the council of the (then) Miranda Naturalists' Trust and was a keen member of the Trust throughout its history.

Michael and Christine lived in Orakei with a gorgeous view of Orakei Basin. Michael had a special interest in the shags that nested in trees bordering this estuary, and results of his shag observations frequently appeared in *Notornis*. Michael recorded bird calls and built his own parabolic reflector.

To help promote bird-watching to the public he led bird walks at Cornwall Park. For several years Michael was the OSNZ's voluntary archivist. In 2014 he received the Society's Meritorious Service Award 'for his decades of work ... in many different roles' and there is now a Michael Taylor Memorial Fund.

Michael furthered his interest in the natural world through service



with several other nature groups. For Forest & Bird he served on the governing council and was chairman of the Central Auckland Branch. With John Staniland he set up the Waitakere Branch in 1977, and in 1979 helped establish the society's Matuku Reserve.

He was at various times secretary, newsletter editor and trustee for the Native Forest Restoration Trust and helped to establish the Marie Neverman Reserve at Lake Tupare, South Kaipara.

He served on the council of the Auckland Institute and Museum from 1978 to 1983 and was a volunteer in the museum's Land Vertebrates Department 2001-13.

Michael had a busy and active retirement. Christine, who had been a university administrator, research assistant in mental health and social worker, died in 2003, but Michael remained in their home until 2012 when a tremor in his hands led to him moving to a retirement village.

John Dowding recalls that Michael was constantly fascinated by the world and how it worked, loved to share his curiosity, and had a quiet, slightly impish, sense of humour and a love of puzzles and quizzes. Dr Michael Taylor was a leading figure for Auckland ornithology for over 40 years and many will remember him for his vast knowledge, careful and meticulous observations and records, and friendly manner and generosity.

Brian Gill

Jocelyn Lane: adventurous spirit and lover of the shorebirds and their habitat

Volunteer shore guide Jo Jo Doyle vividly recalls a visit to the hides a couple of years ago when she noticed an older woman walking slowly out towards the sea, looking around, gazing at her surroundings. 'Although I sensed she might want to be by herself something made me walk over to her and smile and say something about the beauty that surrounded us.

'She agreed, hesitated, and then, lifting her head and looking about, said, "This is my land that my family has owned for generations. I have come here today to say goodbye for it is being sold soon." I felt honoured, for I knew who she was, and lucky to have crossed the path of a legacy that has done so much for the birds, the land and the people. I thanked her for all that she and her family had done.

'At some point I looked easily into her eyes and asked, 'Is it hard to say goodbye?' She looked around at the sea and land and said, "Yes . . . but I know it will be in good hands."

The woman visiting the family land was Jocelyn Lane, who died recently aged 82, wife of the late Allan, and mother of Steve, Kiri and PMNT stalwarts Wendi and Trudy. And the reason for her farewell was that the Robert Findlay Wildlife Reserve was being sold to PMNT.

Jocelyn was raised in Hawera, in South Taranaki, where their father was the curator of parks. She trained as a teacher of the deaf, taught in Auckland for a couple of years, then went travelling the world, along the way teaching at deaf schools in Britain and South Africa, and spending two years at a bible college in Capetown.

When she returned she continued in deaf education until, as her sister Marg recalls, she 'went to a Bible College of New Zealand weekend summer school and met a handsome man from Miranda, Allan Lane. Soon she became a farmer's wife and they were later blessed with four children.'

Along with the farm, of course, she inherited the Findlay-Lane family's tradition of preserving the coastal part of their farm as habitat for birds and welcoming the birders who flocked to see them.



But life wasn't always easy. Son Steve recalls, 'Times were really tough on the farm when we were kids. There was never enough money, there were long hours at home on her own with four young kids, which was typical for many farming families. Looking back, her self-sacrifice and love for us was incredible. She didn't just sit back and let circumstances dictate to her either. Mum was involved in a lot of the farming policies and enterprises and she was bit of an entrepreneur.'

After Allan died in 1998 and the children grew up, Jocelyn resumed her travelling. Trudy comments proudly, 'She was so independent and adventurous it was hard to get her to raise an eyebrow. When you've got a Mother who in her 60s goes off to the mountains of Thailand and the war zone of Lebanon to do missionary work it means she was very rarely flustered.'

She was never one to make a fuss either. For instance, Wendi remembers her Mum ringing her in the UK to say she had been diagnosed with breast cancer. 'I was really upset, of course, especially because there was no way I had the money to come home to support Mum. Mum's words of comfort were, "Don't worry about me dear, you can't kill weeds, I'll be fine!"'

She certainly never let the cancer slow her down. Indeed, she headed off

on a trip to North America and even managed to put the mastectomy which resulted from the cancer to good use. A favourite family story is of how she was traveling through Canada and, running out of cash at a supermarket checkout, had to excuse herself and run to the toilet to get money out of her bra. She had built a secret pocket in her fake boob to keep her money and passport in.

Later Jocelyn moved to Orewa and then to Tauranga but she never lost her love of Miranda. Friends from Orewa recall her organising a busload of neighbours to visit the Centre. She had a microphone in the bus and enjoyed herself hugely pointing out all the sights along the way, then showed everyone around the wildlife area.

Trudy says her Mum was always a big fan of the Shorebird Centre and its work. 'She would thoroughly read magazine issues as they arrived and kept up with the play with what was going on with the Centre and the shorebirds. She was very proud of our family connection with the Trust and would take any opportunity to talk with others about the Centre. She was particularly pleased when Wendi and I dived in to take on the shoreguide role and never missed a chance to tell people about it.'

Jim Eagles

GODWIT TIMES

A young human's view of banding



Happy New Year fellow Godwitters! I recently interviewed junior birder Liam, to find out what banding is like from a human perspective.

What time do you have to get up to catch the early bird, Liam?

It's mostly in the dark. My Grandad sets his alarm and I wake up to the sound of toast popping. At first I want to go back to sleep but then I remember what we are doing and the excitement gets me out of bed.

Can anyone go bird banding?

No Godfrey. Someone in the group has to hold a permit giving them permission from the Department of Conservation. And the people who put the bands on the birds have to know how to do it properly or else they could injure the birds. I have never put a band on a bird but I have released a godwit after it was banded.

Liam can you describe what was it like holding a godwit?

I had only ever seen a godwit up close through a spotting scope. You guys look quite big compared to the Wrybills and knots. So I was a bit surprised that when I held a godwit in my hand it seemed so light and fragile. I wondered how you can travel from one end of the Earth to the other? It's amazing!

Yes, I suppose we are amazing!

How do you decide when to go banding?

It depends on the tides. The equipment has to be carried across the muddy creek and over to the shellbank while the shorebirds are out on the mud getting breakfast at low tide. We set up the nets and cannons near where they usually roost at high tide and then sit quietly (like in the photo above) and wait for hours until the tide comes in and the birds return to the shellbank. But when the cannon nets are fired there is a mad rush. We all scramble as quickly as we can along the shellbank carrying heavy containers which is not easy.

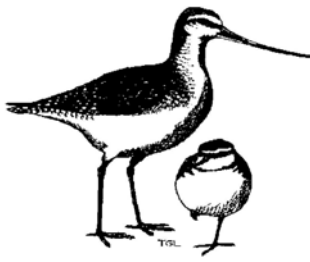
What happens then, Liam?

It is really important to get all the birds in the net out as quickly and carefully as possible. They are placed in cool dark boxes until it is their turn to be measured, weighed and banded and then they are released.

Thank you for taking the time to talk to me Liam.

You're welcome. Umm . . . I couldn't help noticing that you don't have any bands on your legs, Godfrey. Would you mind letting one of our experts put some on so that birders around the world know who you are . . . ?

PUKOROKORO MIRANDA NATURALISTS' TRUST



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Eagles.

Magazine

Pukorokoro Miranda Naturalists' Trust publishes *Pukorokoro 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 Kaiaua and the Miranda Hot Pools, the Pukorokoro 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 \$65 for those living overseas. Life memberships are \$1500 for those under 50 and \$850 for those 50 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.miranda-shorebird.org.nz) and pay a subscription via Paypal, by direct credit or by posting a cheque.

Bequests

Remember the Pukorokoro 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 Pukorokoro 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, the census days are a good chance to get involved with field work and research. This year's are on June 18 and November 12. 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 *Pukorokoro Miranda News*. If you want to discuss your ideas contact Jim Eagles at eagles@clear.net.nz.

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.

Liven up your day with a bit of wildlife

Beautiful bird t-shirts

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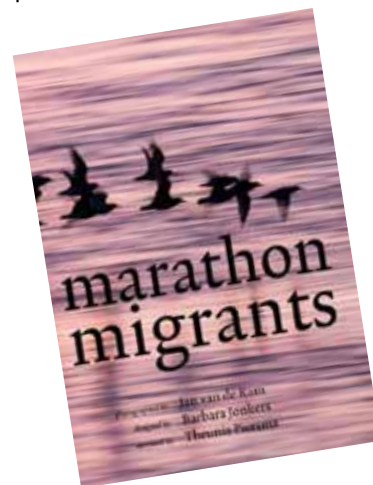
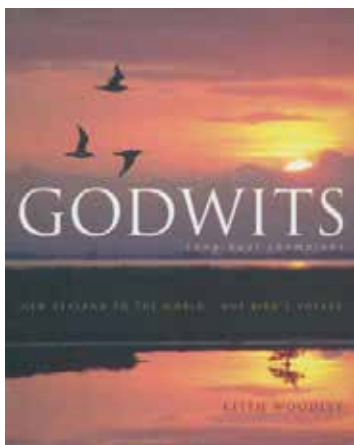
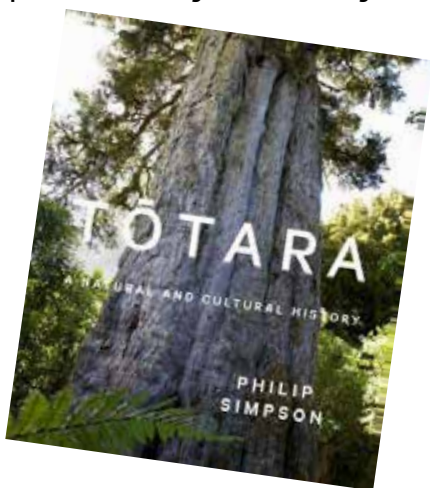
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The Shorebird Centre is always worth a visit to see the birds, enjoy the displays and chat with Keith or Chelsea. But if you can't find the time to call in just go to our online shop at <https://shop.miranda-shorebird.org.nz/> or ring 09 232 2781 and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