

Pukorokoro Miranda News

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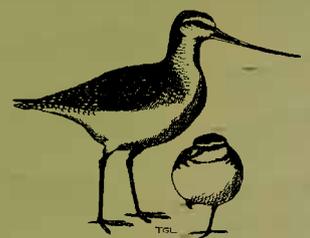


The showy turnstone

China seeks World
Heritage status for
14 key bird sites

PMNT joins massive
effort to save
Southern NZ Dotterel

High-tech drone helps
Pukorokoro habitat
restoration





TAKEOFF: (from left) Drone pilot Kim Clarke gets his craft ready for takeoff while landowner Noel Coxhead, PMNT manager Keith Woodley, Tim Brandenburg from Living Water and Hamish Kendall from Flightworks discuss the route; the drone lifts off. Photos / Jim Eagles

Shorebird snippets

Drone called in for wetland restoration

Plans to restore some 50ha of wetlands and roosting areas for waders and other wildlife at Pukorokoro Miranda have continued to progress helped, perhaps surprisingly, by the torrential rain that caused severe flooding around the Firth of Thames.

As members will be aware, since PMNT bought the 27ha of the Robert Findlay Wildlife Reserve, it has been working on a development plan. In addition, as reported in *PM News* 103, the Living Water Partnership between Fonterra and the Department of Conservation, has signed a purchase agreement for 23.5ha of the Coxhead farm over the road.

The plan is to coordinate development of the two areas to provide a large, almost contiguous, area of wetland habitat.

The trickiest part of that work will be to get the water levels right so as to create more areas for birds to roost and feed without affecting adjoining farmland. So, shortly after the rain stopped falling, Living Water had a drone from mapping company Flightworks up in the air to take photos of the landscape

to see where water was lying along the coastal strip.

The drone was able to hover over a huge area, including the Coxhead land, the Findlay Reserve and the Shorebird Centre, and its photos will be used in drawing up the development plan.

As Tim Brandenburg, North Island programme lead for Living Water, explained: ‘The purpose of the drone work over the Coxhead property was to take advantage of the recent flooding and see where the wet areas lie.

‘This will help us to develop the wetland restoration plan for the potential reserve we are working toward purchasing. It will also inform the final subdivision plan and contribute to the design of any drainage or flood containment structures to prevent potential detrimental impacts on the drainage on the adjacent farms.

‘These are key steps toward obtaining the necessary resource consents for the habitat restoration work and thereby meeting the conditions of sale of the property.’

Information from the drone flight will be shared with PMNT but, mean-

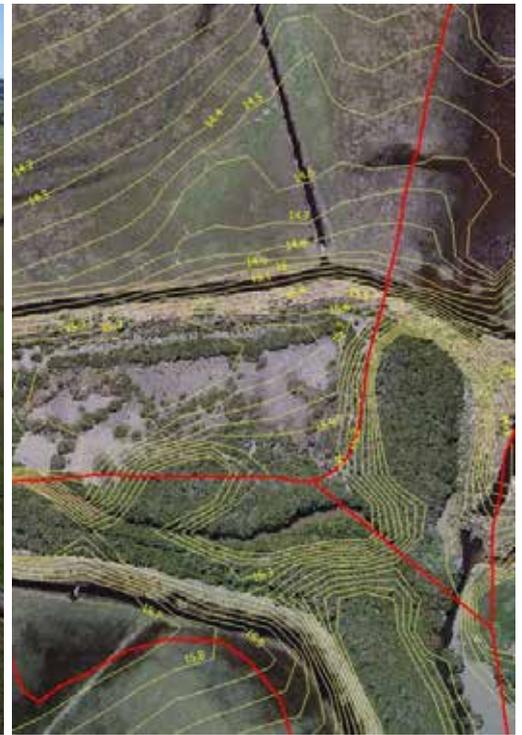
while, the Trust has been busy with its own investigations in respect of the Findlay Reserve.

David Lawrie has done a land survey and Golder Associates are carrying out a series of hydrology surveys to get clearer pictures of land and water levels. A provisional management plan, required as part of the Waikato Regional Council’s \$200,000 grant towards buying the reserve, has been drawn up and submitted.

Manager Keith Woodley has also done a walk round the Reserve with WRC and DOC – both of which will have an involvement in the necessary resource consents – to discuss development plans. Keith explained to them that the Trust’s first priority is to improve drainage and flows for the Stilt Ponds where for much of the summer water levels have been too high for the waders’ comfort.

The situation has been greatly improved by cleaning out the access culvert for the ponds and reinstalling the flapgate which means the ponds are now filling and draining in accordance with tidal cycles.

Cover: Photo of a Ruddy Turnstone in breeding plumage in flight by Mark Johnson.



VIEW FROM ABOVE: (from left) A photo from the drone showing the Shorebird Centre with Widgery Lake full to overflowing and, over the road, part of the fennel control area; an aerial shot of part of the Coxhead property showing how the contour lines are able to be overlaid. Photos / www.flightworks.co.nz

However, the Trust is still interested in establishing a second outlet for the ponds, probably reaching the sea just north of the site of the old hide, and Keith reports ‘the WRC is comfortable with this plan’.

The Trust is also continuing to explore creating an additional raised roosting area along the eastern edge of the Stilt Ponds. The material for this could come from the excavation of the second outlet or, if necessary, from the large raised area at the northern end of the reserve. The plan is to build a small new hide on the site where the old one used to stand as well as a larger new one looking west over the ponds and the new roosting area.

Pest control

As well as helping visitors enjoy the birds, summer shore guide Wendi Lane has also been protecting the birds by monitoring the pest traps on the Findlay Reserve. Over summer she has collected 12 rats, 3 stoats, 4 cats, 9 hedgehogs and one mouse. She has also added extra traps to link up with the traps at Taramaire. Wendi’s contract ended after Easter.

Fennel clearing

Considerable effort has been put into combatting the usual summer explosion of fennel on the reserve. Living

Water has provided funding for a contractor – who has also been working on the DOC land at Taramaire – to spray and then mulch the fennel on the wider Findlay Reserve. This probably won’t get rid of the fennel but it should knock it back for some time. In addition, several volunteers have attacked areas of fennel the contractor couldn’t get at.

New signs

Hauraki District Council has agreed to

meet the cost of adding the name ‘Pukorokoro’ to the existing two brown ‘feature of interest’ road signs for the Shorebird Centre.

Better security

The Shorebird Centre is moving ahead with options for electronic surveillance of the car park at the Findlay Reserve to deter the thieves who have been breaking into vehicles. In the meantime, fennel round the car park has

What’s on at the Shorebird Centre

14 May, Annual general meeting

11am Your chance to have a say in the running of the Trust. Guest speaker, Eugenie Sage, Green Party environment spokesperson.

June 18, Firth of Thames Wader Census

Details from Tony Habraken (09 238 5284). High tide 1.30pm.

14-16 July, Print Making Workshop

With Sandra Morris. Details from the Shorebird Centre.

12 August, Winter Pot Luck Dinner

10am-2pm Working bee. 6pm Dinner and guest speaker Sonam Tashi Lama on the conservation of Red Pandas in Nepal.

5-7 September, NZ Dotterel Management Course

Details from the Centre.

15-17 September, Nature Journaling Course with Sandra Morris

Details from the Centre.

22-24 September, Nature Photography Course with Neil Fitzgerald.

Details from the Centre.

22 October, Welcome to the Birds

Adrian Riegen will give an update on PMNT’s work in North Korea.



UNEXPECTED VISITOR: The body of this 5m-long beaked whale washed up on the shellbank opposite the new hide in late March and added to both the view and the odour. Auckland University whale expert Dr Rochelle Constantine confirmed it was a beaked whale, perhaps the relatively common Gray's Beaked Whale, but couldn't be sure from just looking at photos. However, a DOC team later buried the whale and took tissue samples which she will be able to use to identify the species.

Photo / Jim Eagles

been cleared to improve the visibility of parked vehicles and, when possible, the Trust has had a volunteer sitting in the carpark.

Several steps have also been taken to improve security at the Centre itself

including creating a security cupboard and bolting down the till.

Cheers

The Centre shop has now taken delivery of a fridge which will allow it

to sell cold drinks, including bottled water, Phoenix organics and Pete's lemonade, to visitors.

Snap

After a break of a couple of years the Centre is resuming its popular Photography Course on 22-24 September. The new tutor is respected ecologist and nature photographer Neil Fitzgerald (see his gallery at www.neilfitzgeraldphoto.co.nz).

North Korea

PMNT will once again be in North Korea this year continuing a survey of the entire coastline. As *PM News* went to press, Adrian Riegen, Wendy Hare and Nigel Milius were flying to Beijing where they will meet up with David Melville.

The plan is to fly to Pyongyang where the team hopes to be able to spend two evenings mist-netting waders followed by 4-5 days of surveys along the coast from the point reached last year.

After returning to Beijing, Adrian will accompany New Zealand Ambassador to China, John McKinnon, to Bohai Bay to see the Luannan coast, and the knots which will be resting their on their journey to Siberia, and to discuss the issues waders face in the



Red Pandas at the Shorebird Centre?

For over 40 years, Pukorokoro Miranda Naturalists' Trust has championed the cause of shorebirds. You all will have enjoyed the colourful efforts of The Flock team over the past 18 months to bring the survival challenges of Godwin Godwit and his friends into the spotlight. So, we all understand the difficulties of

protecting species which are poorly understood and little known.

Our speaker for the midwinter potluck, Sonam Tashi Lama, fights that same battle, but his species is the mysterious Red Panda, a mostly arboreal mammal with thick russet fur, native to the Himalaya in Bhutan, China, India, Myanmar and Nepal. Nigel and I met Sonam in March 2016 when he was our guide as we sought to see wild Red Panda in forest protected by the Red Panda Network (www.RedPandaNetwork.org) in eastern Nepal. A few months later Sonam came to New Zealand on a two year scholarship to study International Nature Conservation at Lincoln University and in Gottingen University in Germany.

Come and join us for this rare and extraordinary chance to hear first-hand about the work of the Red Panda Network and a creature known to most of the world only by the icon of the search engine Mozilla Firefox (at right).

Wendy Hare



Yellow Sea. After that he will visit the Yalu Jiang National Nature Reserve.

Banding news

Catching a beautiful full breeding plumage *piersmai* subspecies of Red Knot was the highlight of a successful day cannon-netting and banding on the shellbank at the start of April.

The cannons and net were set up on a prepared flat area and in no time at all 100 Banded Dotterel took up residence.

Wrybill, the main target, settled a bit further south so Adrian Riegen started to walk 1000 of them towards the catching area. 'The sound of 2000 little feet running across the shells 5m ahead of me was delightful.'

Unfortunately the Wrybill didn't want to walk that far and then something spooked the dotterels so the catching area was left empty. But then a bunch of knot, godwit and Pied Stilt landed there and the decision was taken to go with what was available and leave the Wrybill to another day (possibly in July).

The net went out well and hardly any birds escaped. The team banded 57 new godwit – including one retrap banded on 17 December 2016 at Miranda and only seen once since – 22 Pied Stilt and nine Red Knots.

The *piersmai* was the star of the show and was photographed from all

angles before being released sporting flag DBK. This sub-species usually holidays in northwest Australia but some each year make it to New Zealand. No doubt it will soon depart on migration bound for the New Siberian Islands

Our inaugural secretary



Judy Piesse (at left), who was the Trust's first secretary and a life-long supporter, has died aged 89.

Keith Woodley, who knew her well, recalls that during her long life she was a spirited campaigner and supporter of many causes.

She was a long time member of Forest and Bird, and campaigned to save native forest tracts at Whirinaki and Pureora. For several decades she and her late husband Arn lived at Te Kouma on the Coromandel, from where she was a vigilant presence in the anti-mining movement.

As the inaugural secretary, a position she held for three years, Judy was also an important figure in the story of Pukorokoro Miranda Naturalists' Trust. Later, as a life member, she maintained a keen and active interest in the Trust and its activities.

The location of the centre made it a

convenient stopover between Te Kouma and Auckland and Keith happily recalls many visits during his time as manager. 'Many were the discussions over lunch or a cup of tea on the affairs of the Trust, our expeditions to China, latest developments in environmental campaigns, the state of the nation or the state of journalism. A journalist, and for many years a contributor to the *Hauraki Herald*, Judy was always totally up to date with regional news.'

Judy and Arn also regularly attended Trust functions, notably the 30th Anniversary lunch in 2005 where she joined John Brown, Stuart Chambers, Michael Taylor, David Lawrie and inaugural treasurer Russell Thomas in recalling the early days. Following a stroke Judy spent her last few years in a wheelchair, but this did not prevent her also attending the 40th Anniversary lunch, as a guest of honour.

Judy was stylish to the end. At the Thames Boating Club, before a splendid backdrop of the Firth at full tide and with regular flypasts from flocks of oystercatchers and a few White-fronted Terns, a memorial service was held. Her casket (photo below by Keith Woodley) was simple but ornate: simple in its modest materials, beautifully ornate in the shorebirds painted upon it.

The Trust's condolences go to Diane, Lyall and Paulette. 





BATTLING FOR SPACE: Bar-tailed Godwits and Great Knots compete for room on a fishpond wall at Yalu Jiang National Nature Reserve. Photo / Phil Battley

China takes first steps towards World

China has followed up its Memorandum of Arrangement with New Zealand to protect wader habitat by naming several key sites on the Yellow Sea – including Yalu Jiang, which is crucial to our Bar-tailed Godwits, and the Luannan Coast, vital for our Red Knots – as potential candidates for World Heritage status, writes **Jim Eagles**

The Chinese Government has sparked excitement among conservationists by taking the first steps towards having Unesco declare 14 important bird areas on the Yellow Sea to be World Heritage sites.

And it has emerged that South Korea is working on a nomination for the tidal flats of the southwest region, including the most important remaining site for migratory waterbirds in the country, Yubu Island.

These moves apparently stem from the IUCN World Conservation Congress held in South Korea in September 2012, where a resolution on the ‘conservation of the East Asian-Australasian Flyway and its threatened waterbirds, with particular reference to the Yellow Sea’ was adopted by 100%

of voting governments.

Subsequently, national workshops were held in Beijing in 2014, organized by Beijing Forestry University, and in Incheon in 2016, organized by the Korean Ministry of Environment, to implement this resolution.

Then in August 2016 there was a joint meeting of representatives of the government authorities of China and the South Korea responsible for World Heritage matters, to discuss the nomination of Yellow Sea coastal wetlands.

In China, the Ministry of Housing and Urban-Rural Development has led the work to identify sites for the recently released ‘tentative list’ of 14 sites, with technical help from Shanshui, a Chinese conservation NGO.

When the list was announced there

were some criticisms amidst the general acclamation, but the EAAFP observed that while ‘there is recognition that the tentative list may not be comprehensive . . . but optimal solutions can be achieved as the nomination proceeds.’

Under Unesco rules the Chinese application is called a ‘tentative list’ because the application has to go through some detailed scrutiny before any areas do achieve World Heritage status.

But once approved it would mean those areas were protected by international treaty and special funding would be available for their preservation.

The news was broken to PMNT by David Melville who described it as ‘a fantastic start’ then added ‘remember this is still the tentative list - there is still a long road to travel - but fingers



PART OF OUR HERITAGE: Map showing the approximate location of the 14 natural sites China has placed on a tentative list for World Heritage status. The numbers refer to sites listed in the text below.

Heritage status for bird roosting sites

crossed.’

Adrian Riegen said it was ‘brilliant news . . . if somewhat hard to believe . . . and a great reward for everyone who has been battling for years to convince the world that the Yellow Sea and Bohai Bay are such precious places for wildlife.’

Spike Millington, Chief Executive of the East Asian–Australasian Flyway Partnership, issued a statement to ‘congratulate the Government of China on working so hard and so diligently to get these very important sites on to the World Heritage tentative list in such a timely fashion.’

The application for World Heritage status was lodged with Unesco by the National Commission of the People’s Republic of China – a body set up primarily to deal with Unesco issues - on 28 February.

In support of giving the areas World Heritage status the application

notes that numerous major rivers, including the Yellow River and the Yangtze River, flow into the Bohai Gulf and the Yellow Sea and the constant discharge of sediments and nutrients results in ‘the world’s largest continuous mudflat coast.

‘The dynamic process of sediment accumulation and continental shelf subsidence still continues to shape the geological landscape and ecosystem on the Bohai Gulf and Yellow Sea coast, making it one of the most diverse and fertile coasts in the world, a key habitat for the migratory birds on the EAAFP.’

‘Besides, habitats formed by thousands of years of human activities, including rice fields and salt works, also provide stopover sites for migratory birds in certain periods of the year.’

The 14 sites listed are (their locations are indicated on the map above):

1. Dandong Yalu River Estuary National Nature Reserve, Liaoning,

described as ‘China’s northernmost coastal stopover site for water birds, including thousands of Great Knots and Bar-tailed Godwits’ and identified by BirdLife International as an Important Bird and Biodiversity Area (IBA).

2. Changhai Provincial Nature Reserve for Rare Marine Life, Liaoning, ‘inhabited by marine animals such as Spotted Seal, Common Minke Whale, Long-tailed Duck, Marbled Murrelet and Chinese Egret.

3. Beidaihe-Geziwo/Xin River Estuary, Hebei, ‘a stopover site for numerous migratory birds. The Geziwo Beach is a world-famous bird watching destination. . . Almost all the rare and endangered birds migrating through the Yellow Sea coast could be observed here.’ Designated as an IBA.

4. Qilihai in Beidaihe New District, Hebei, ‘now mainly a habitat for gulls and waders. Designated as an IBA.

5. Luannan-Zuidong Coastal Wet-

land, Hebei, ‘a foraging ground for numerous waders. During the migration season (it is) a stopover site for nearly half of the Red Knots on the flyway. It is also a stopover or wintering site of endangered or rare birds such as the Far Eastern Curlew and the Relict Gull.’

6. **Caofeidian Wetland**, Hebei. ‘During the migration season, a large number of geese and ducks, cranes, waders, gulls, raptors and passerines pass by or stop over. In the Caofeidian reed marshes live numerous individuals of a threatened species endemic to China.’

7. **Nandagang Wetland** in Cangzhou, Hebei, ‘one of the most important stopover sites for the Oriental Stork’ and ‘an important potential habitat for endangered or rare birds such as cranes and the Relict Gull.’ Designated as an IBA.’

8. **Huanghua Ancient Shell Ridges**, Hebei, a ‘globally-rare’ site similar to the chenier plains at Pukorokoro.

9. **Yellow River Delta National Nature Reserve**, Shandong, ‘a key stopover site’ for numerous species of crane, stork and swan and ‘a key breeding ground for hundreds of Oriental Storks and thousands of Saunder’s Gull.’ Designated as an IBA.’

10. **Lianyungang Salt Works**, Jiangsu, which ‘provide rich food resources for migratory waders’ An IBA.

11. **Yancheng Wetland Rare Birds National Nature Reserve**, Jiangsu, ‘one of the largest mudflat reserves in China’ hosting 14 species of wild animals in the National Protected Class-I list, and 85 species in the Class-II list. . . The reserve is a key transit point for the trans-hemispheric migration where nearly 3,000,000 migratory birds stop over, and is identified by BirdLife as an IBA.’

12. **Dafeng Pere David’s Deer National Nature Reserve**, Jiangsu, ‘home to over 3,000 Pere David’s Deer. In the reserve there are 93 species of birds protected by the Agreement between the Government of Japan and the Government of the People’s Republic of China for the Protection of Migratory Birds and their Environment.’

13. **Rudong-Tiezuisa Coast**, Jiangsu, ‘is a key stopover site for the Great Knot, the Bar-tailed Godwit, the critically endangered Spoon-billed Sandpiper and the endangered Nordmann’s Greenshank . . . It also provides an important breeding ground for terns’.

14. **Qidong North Branch of the Yangtze River Estuary Nature Reserve**, Jiangsu, which ‘covers the major migration channel of the critically endangered Chinese Sturgeon. As an IBA identified by BirdLife, the region also provides wintering ground for migratory cranes and storks.

The process for identifying World Heritage sites requires a country to conduct an inventory of its important cultural and natural sites – which is what the National Commission of China has now done – and to file it with Unesco as ‘a tentative list’.

This, Unesco says, ‘provides a forecast of the properties that a State Party may decide to submit for inscription in the next five to 10 years. It is an important first step . . .’

The next stage would be for China to formally nominate places on the list as World Heritage sites and to present a detailed file in support. In the case of natural sites the nominations will then be evaluated by the International Union for the Conservation of Nature. Once a site has been nominated and evaluated, a final decision is then up to the intergovernmental World Heritage Committee which meets once a year to decide which sites will be inscribed on the World Heritage List. 



KEY TRANSIT POINT: Red-crowned Cranes at Yacheng Wetland. Photo / Xinhua



VITAL STOPOVER: Endangered Spoon-billed Sandpiper on the Dongtai-Rudong Coast. Photo / Tengyi Chen, Follow us on Twitter @SBS_in_China



CRUCIAL FOR RED KNOTS: A fisherman shares the Nanpu mudflats with scores of migratory birds. Photo / Ying-Chi Chan



SETTLING DOWN: A juvenile Dabchick looks right at home on Widgery Lake.

Photos / Keith Woodley

Wild weather has a good side

Keith Woodley reports on the comings (a Dabchick) and goings (lots of Bar-tailed Godwits) during a stormy autumn.

By the first week of March Widgery Lake was almost dry, which is not uncommon at that time of year. A couple of Mallards and the resident Pukeko family could be seen wandering among the few pools remaining. However, by the morning of Wednesday the 8th the lake had returned thanks to an overnight weather bomb.

Further torrential rain over the weekend brought the lake to the edge of the lawn outside the centre, a level more usually associated with July or August. The Black Swan I watched floating on the lake on Sunday afternoon appeared to exude quiet satisfaction at this turn of events.

Even more extraordinary was the appearance the following week of a juvenile Dabchick, a species quite uncommon in the Pukorokoro Miranda area. One morning in late January I had encountered an adult Dabchick on the Bittern Ponds, but this proved to be the only sighting. Then on March 1 an American visitor photographed a juvenile on the same ponds, most likely the bird now in residence on the lake.

The evidence is too thin to suggest Dabchick were breeding there: more likely the two birds wandered in from elsewhere, perhaps from the quarry lakes north of Kaiua. By late March this diminutive bird had become a feature of the place. Every day it could be found feasting on what appear to be tiny eels, giving many visitors close

views and fine photo opportunities.

Meanwhile, for those godwits scheduled to depart it seemed to be business as usual out on the flats. On the evening of Thursday the 9th, in the lull between the two weather bombs, we watched approximately 130 birds leave. They headed up the Firth on a course almost perpendicular to the very strong easterly battering against the hide. The wind systems further north would have eventually given them a good push into the northern Tasman.

There then came the second weather event that left vast swathes of surface water throughout the district. But by Monday there were clearly more birds ready to go, with departures occurring each afternoon or evening over the next five days. One witness to some of these was Yudhijit Bhattacharjee, a writer here to do a story on migration for *National Geographic*.

With each godwit departure one cannot help wondering what they will find. The relentless disappearance of habitat around the Yellow Sea remains a potent threat to their future. However, at long last there are glimmers of hope, as China moves in the direction of increased protection for some key sites. There is still a long way to go, and some shorebird populations will likely continue their decline in the short term, but for once there is cause for a little optimism – hitherto a very scarce quality for those working with shorebirds in the region. 

Recent sightings at Pukorokoro

Arctic Migrants

153	Bar-tailed Godwit
5	Red Knot
6	Black-tailed Godwit
20	Pacific Golden Plover
15	Turnstone
6	Sharp-tailed Sandpiper
1	Red-necked Stint

New Zealand species

2100	Wrybill
2330	SI Pied Oystercatcher
	New Zealand Dotterel
76	Banded Dotterel
41	Royal Spoonbill
	Black-billed Gull
2	White Heron
	Caspian Tern
	White Fronted Tern
	Pied Stilt
	Hybrid Black Stilt
	Variable Oystercatcher
1	Dabchick



DOTTEREL: A rare photo of a North Island Dotterel (at left) meeting its darker Southern cousin at Shoal Bay in Auckland. Photo / John Dowding

Battle to save the Southern Dotterel

DOC is putting extra staff and resources into the fight to find out why the New Zealand's Dotterel southern subspecies is dying out and how to protect it, writes **Jim Eagles**.

A huge effort is being put in to try and safeguard the last remnants of the Southern New Zealand Dotterel on Stewart Island following a collapse in numbers in the past few years.

The Department of Conservation team working on the project has been given additional funding and is working quickly to implement a two-pronged plan focussed on improved monitoring of the birds and an expanded predator control programme.

The plight of the Southern Dotterel was highlighted by John Dowding's keynote address to the Australasian Shorebird Conference in Auckland last year (reported in PM News issue 102). PMNT chair Gillian Vaughan subsequently wrote to Conservation Minister Maggie Barry underlining the plight of the birds and strongly supporting the need for action.

Originally the birds were found throughout the South Island but

numbers declined rapidly following the introduction of cats, mustelids and rodents and they are thought to have been gone from the mainland by around 1900.

A relict population survived on Stewart Island but it, too, continued to decline, reaching 109 in 1990 and just 62, with perhaps only 12 breeding pairs, by 1992.

Cat predation was believed to be the primary cause and a bait control programme was launched in 1994, aimed at cats and rodents, which succeeded in allowing numbers to grow to an estimated 290 by 2009.

However, the population then began another sharp decline and by the April 2016 flock count was estimated at just 118-126 birds. There were fears that if nothing was done the Southern Dotterel could be functionally extinct within two to three years.

Kevin Carter, formerly based at the

DOC office in Thames but now senior biodiversity ranger on Stewart Island, said an initial brief on the problem looked at the following key points:

- Cat predation is probably still the main threat meaning that the existing poisoning programme is no longer effective.

- Field observations suggest that egg predation by White-tailed Deer and Spur-winged Plover may be occurring.

- An improved monitoring programme is essential to see if there are other, so far unidentified, threats.

Thanks to extra funding provided, over the course of the current breeding season the project has been able to:

- Employ four dedicated dotterel rangers for the season.

- Relocate two permanent ranger bivvies and two personnel shelters into the operational area to allow bigger teams to stay on site.

- Carry out an aerial survey of the

terrain to identify better track routes and make a start on cutting them.

- Install new bait-stations – with more to come - and kill-traps over a wider area and commence use of the new Papp toxic baits.

- Use cat-detecting dogs – no cats were found in the breeding habitat though this does not mean cats are not part of the problem.

- Carry out genetic analysis of feral cat samples – all of them tested negative for the presence of avian DNA.

- Remove six white-tailed deer and one Spur-winged Plover.

- Develop a broad-spectrum disease screening test.

- Conduct additional monitoring which located 14 nests (4 hatched, 1 predated, 1 abandoned, 8 unknown), found 12 unhatched eggs and located approximately 16 chicks.

As part of the expanded monitoring programme, some of the delegates attending this year's NZ Bird Conference and OSNZ AGM in Te Anau over Queens Birthday Weekend, will move on to Awarua Bay, on the mainland, where the Southern Dotterels flock in the non-breeding season, to assist DOC with catching, banding and taking samples from the birds. A small team from Pukorokoro, including Gillian Vaughan, Keith Woodley and Adrian Riegen, will be among them.

Kevin said that for the immediate future the plan was to continue cutting tracks, installing traps and bait stations, doing flock counts and banding, screening birds for disease and developing a genetic library of individuals.

In addition, DOC will be bringing together a focus group of technical experts, project leads, stakeholders and DOC management to see what can be learned from the 2016–17 season and drive future project directions.

The team will also be producing an end-of-breeding-season report including an analysis of available dotterel and pest data. 🐦



LAST REFUGE: (from top) Southern Dotterel breeding territory near Table Hill on Stewart Island; a dotterel demonstrates its 'broken wing' distraction technique; a successful nest.
Photos / Department of Conservation



KEEP OFF: A Ruddy Turnstone, one of 40,000 that breed in Alaska, tells intruders to keep away.
Photo / Tim Bowman, US Wildlife Service

The flamboyant Ruddy Turnstone

It's a bit surprising that the Ruddy Turnstone doesn't have a higher profile in New Zealand because it's one of the most frequent Arctic migrants, in plumage and behaviour it's one of our most flamboyant waders, and it has an interesting tale to tell, writes **Jim Eagles**.

The Ruddy Turnstone is the third most numerous of the Arctic migrants to visit New Zealand each year and it is surely one of the most fascinating.

They are ostentatious birds, assertive in behaviour and with particularly striking breeding plumage, made up of sharply contrasting areas of black, white and chestnut – often described as tortoiseshell – plus unforgettably bright orange legs.

What's more, the plumage of turnstones doesn't just vary according to gender, each bird also has distinctly different patterns of black and white around the neck, which are sufficiently unique that scientists have used them to identify individual birds.

You could say that right from the outset turnstones have been troublemakers. Take their scientific name, *Arenaria interpres*, which was provided by the Swedish father of taxonomy, Carl Linnaeus, in 1758.

Arenaria derives from *arenarius*, Latin for 'inhabiting sand', which is self-explanatory. *Interpres* means 'interpreter' and apparently derives from a visit Linnaeus made to the island of Gotland where he got the idea that



THE BOSS: A turnstone surveys its territory.
Photo / Bill Hubick, www.billhubick.com

the Swedish word 'talk' or 'interpreter' applied to the turnstone, when in fact in the local dialect the word means 'stalks' or 'legs' and is used for the Redshank. A double-blooper which has lasted for 250 years.

As for their behaviour, in *Shorebirds of NZ* Keith Woodley commented admiringly that 'Turnstones have attitude and it is difficult not to be impressed: they have been variously described as "alert and bustling"; "pugnacious and quarrelsome"; and "an opportunistic forager".'

Their calls generally match their personality, the most common being a repetitive, staccato whistle, a short tremolo, or a short, squeaky chuckle. The most musical call, a melodious kewk, kee-oo or kuiti, comes when they are alarmed or in flight.

Keith was also impressed with the breadth of that foraging, observing that, 'You would not call them fussy.'



SPECTACULAR: The Ruddy Turnstones' distinctive plumage makes the departure or, in this case, arrival of a flock particularly spectacular. Photo / Brian Chudleigh

They have variously been recorded as tucking into worms, molluscs, crustaceans, spiders, eggs, carrion – including on one occasion a human corpse on a British beach – raw and cooked meat and fish, chips, banana, coconut, bread, biscuits and chocolate.

Some of the items on that list have come from humans who have shared space with turnstones on board ships or at camping grounds and been astounded at their eagerness to eat anything on offer.

But in the wild – as its name implies – the turnstone mainly feeds by using its sturdy, wedge-shaped bill, powerful neck and jaw muscles, stout legs and strong toes to lever over stones, shells, clods and other objects to get at whatever may be hiding underneath. Birds have been known to join together to overturn a particularly large object.

Turnstones generally breed north of 60 degrees N, making them one of the most northerly-breeding wader species, in a vast circumpolar swathe of tundra stretching across Scandinavia, northern Russia, the Bering Strait, Alaska and northern Canada, Greenland and Iceland.

Their non-breeding range is even more spectacular. Keith notes in

his book that they ‘may turn up on almost any coastline on Earth except Antarctica’. And they get pretty close to that final outpost being regularly found on the Auckland Islands and vagrant on the Antipodes, Snares and Campbell Islands.

Turnstones are categorised as ‘of least concern’ in the IUCN red list of threatened species, but the populations in the East Asian-Australasian flyway are falling sharply. The state of Victoria lists them as ‘vulnerable’ and it is assumed that like most birds in the flyway they are impacted by habitat loss in East Asia.

The IUCN estimates the global population as between 460,000 and 730,000. OSNZ’s November counts over the past 11 years have recorded between 914 and 2312 birds spending summer in New Zealand. This year 13 were regularly recorded at Pukorokoro.

They are widespread, with regular sites including Parengarenga, Rangaunu, Kaipara, Manukau and Tauranga Harbours, Waipu Estuary, the Firth of Thames, Farewell Spit, Motueka Estuary, Lake Grassmere, Kaikoura Peninsula, and coastal lagoons or estuaries in Southland.

Every year a few hundred birds,

assumed to be immature, skip the flight back to the Arctic and spend the southern winter in New Zealand. A small flock of 6-7 gave great pleasure by spending last winter just north of Kaiaua, just outside my bach, possibly drawn by the stony beach.

It comes as no surprise to learn that the migration route followed by turnstones is still far from clear though in recent years banding programmes and use of geolocators have filled in some of the gaps. NZ Birds Online records that one bird was tracked in two consecutive years migrating from Alaska to Australia via the central Pacific and back to Siberia via the EAAF, a round trip of 27,000 km. In addition, a bird banded in Invercargill has been recorded on southward migration through Broome in north-west Australia during September in three successive years. This suggests that at least some birds take that route before continuing on to New Zealand. However, a South Australia geocator programme has also recorded turnstones following a range of different routes during their journeys south so chances are that birds heading for New Zealand do the same.



ALL DIFFERENT: These markings were drawn by artist RM Bishop from birds netted by researcher Peter Ferns on his expedition to Greenland and were later used to successfully identify individuals turnstones.

We are no better informed about how they reach their Siberian breeding grounds after spending summer in New Zealand. The better-studied Australian birds give us the best clue but, again, the likelihood is that those contrary turnstones follow a variety of routes.

As we admire their plumage it is interesting to speculate whether those distinctive markings could be used to track their movements.

During research into waders in Greenland in 1978, Peter Ferns, of University College, Cardiff, noted that ‘in addition to sexual variation, individual Ruddy Turnstones possessed distinctly different patterns of black and white markings on the head and neck’.

Ferns saw that, like other shorebirds in his study area, turnstones aggressively defended their breeding territories. However, unlike the other birds turnstones did not have clearly differentiated songs. ‘In this context,’ he speculated, ‘the variations in head and neck plumage may allow ready visual identification of neighbouring individuals and thereby fulfil the same kinds of functions that auditory recognition of neighbours is believed to serve in songbirds.’

Orca researchers are able to identify individuals from the markings on their fins so why not do the same with turnstones? 



HOME SWEET HOME: Turnstones at Kaiaua.(above) in breeding and non-breeding plumage; (below) the flock that spent last winter there in flight.

Photos / Marie-Louise Myburgh, Wayfarerimages.co.nz



GODWIT TIMES

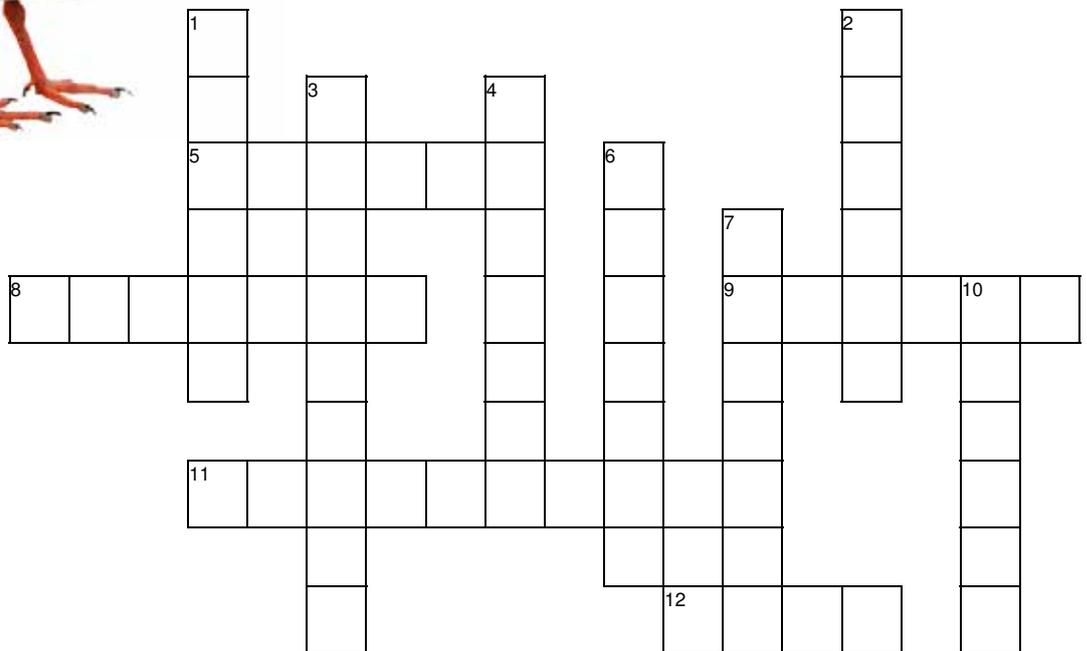
Hello friends

I've been learning a lot about Ruddy Turnstones lately and thought I would share some interesting information with you. For example, I always thought these birds were called Ruddy Turnstones because they were annoying, but the term ruddy is also used to describe red cheeks and in this case the beautiful chestnut-red colour of the bird's feathers at breeding time. I've turned the other facts into a crossword so that you can learn and do a quiz at the same time. Have fun.

From your friend
Godfrey Godwit



All about the Ruddy Turnstone



Across

5. The legs of Ruddy Turnstones are the same colour as carrots and Donald Trump's cheeks.
8. Turnstones are omnivores, which means they eat plants as well as i____, worms, molluscs and crabs.
9. Ruddy Turnstones have been found to migrate as far south as Campbell I____ in the subantarctic.
11. The bill of a Ruddy Turnstone is wedge-shaped which means it is t_____ with a wide base tapering to a narrow tip.
12. The plumage pattern on the b___ of a Ruddy Turnstone is said to be similar to a tortoiseshell cat.

Down

1. Turnstones are very good at turning over s_____ and driftwood to find food.
2. Which gender of the Ruddy Turnstone incubates the eggs more, the female or the male?
3. One of the biggest threats to the Turnstone is reclamation on the shores of the Yellow Sea where wetlands and estuaries are filled in to build f_____.
4. They are good swimmers but surprisingly Ruddy Turnstones do not have w_____ between their toes
6. One of the calls of the Turnstones is described as a short squeaky ch____ (another word for laugh).
7. Ruddy Turnstones breed right across the Arctic including in a cold, remote part of Russia called S_____.
10. Are Ruddy Turnstones endemic (found only in NZ), native (found naturally in NZ but also elsewhere in the world) or introduced?

Answers to Ruddy Turnstone crossword:
Across - 5. orange, 8. insects, 9. Island, 11. triangular, 12. back;
Down - 1. stones, 2. female, 3. factories, 4. webbing, 6. chuckle,
7. Siberia, 10. native.



OLDEST INHABITANTS: Thrombolites at Lake Clifton in Western Australia.

Meet the ancient micro-organisms

Ray Buckmaster introduces the micro-organisms which were crucial to the beginnings of life on Earth and which still play an essential role in the health of our environment including in the Firth of Thames.

The origins of life on Earth are constantly being pushed back. A recent report suggests that life arose around 4.1 billion years ago, only 400 million years after the earth took form. Bacteria were among those early life forms and have diversified to become an essential part of all ecosystems. In fact, for three billion years they were the dominant life form on the planet.

Bacteria are unseen but so important. In ideal conditions these single celled organisms can double in number in just eight minutes. Four drops of seawater could contain one million bacterial cells. So omnipresent are they that their total biomass is equivalent to that of all other living creatures on the planet.

Gaining access to energy is a make or break issue for all living organisms. With energy organisms can re-arrange building block materials so as to grow and multiply. Bacteria have all of the

energy options covered, but then they have been in the game for a very long time.

The building block organic materials that all life consists of were first made by cyano-bacteria. They contain a pigment that captures light energy which is then used to synthesise organic molecules. Cyano-bacteria have remained significant players in world ecosystems.

You can still see some of those ancient life forms at a few places around the world, such as the Stromatolites which grew in thermal pools in New Zealand, or Thrombolites and Stromatolites found in coastal pools in Western Australia, which are considered to be the oldest living creatures.

They consist primarily of cyanobacteria, which are able to photosynthesise, bound together with layers of silt and precipitated minerals.

Even today cyano-bacteria con-

tribute around one quarter of both the marine biomass that drives marine food webs and the oxygen entering the atmosphere.

The other sources of both biomass and oxygen are algae and green plants. Photosynthesis for these organisms happens in cell bodies called chloroplasts that are rich in photosynthetic pigments. It is now well accepted that these chloroplasts originated from the ancestors of present day cyanobacteria. Today of course we would consider the mixing of genetic material from different sources to be genetic engineering.

Most of us are more familiar with bacteria as agents of decomposition. Dead plants and animals are full of energy-rich organic molecules. Bacteria benefit from the energy but produce waste products that are of value to other members of the living community.

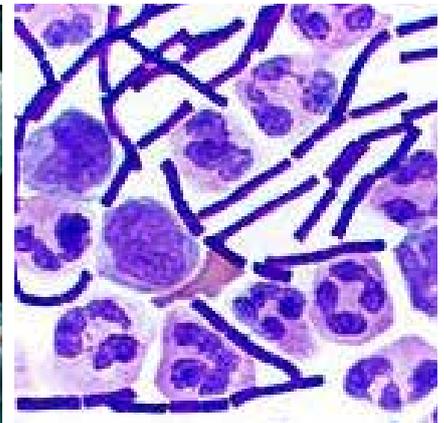
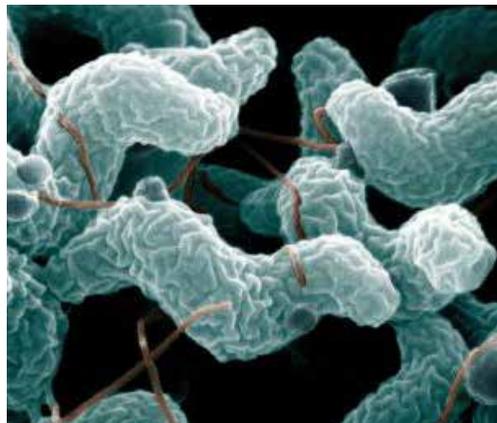
Di-methyl sulphoxide (or DMS)



STILL SURVIVING: Stromatolites at Hamelin Pool in Shark Bay, Western Australia.

Photos / Jim Eagles

crucial to the start of life on earth



BACTERIA: (from left) Cyano-bacteria which can photosynthesise; campylobacter; anthrax.

is a great example of the community linkages that bacteria are involved in. Marine blooms produce a waste product, which marine bacteria use, producing DMS in the process. DMS is a gas carried by the wind and the tube-nosed birds, which include the prions petrels and shearwaters, can detect this in very small quantities. By flying along the concentration gradient they can track down a rich source of food. Algal blooms are the base of a rather large food web.

The most significant aspect of decomposition, however, has to be the re-cycling of those essential building blocks of life that are in short supply. The phosphorus and nitrogen needed to make protein and DNA and every other element needed for life exists in finite amounts.

Decomposer bacteria of the water columns of the ocean or estuary generally live in an aerobic environment. There is oxygen dissolved in the sea water that they can use to oxidise their

food sources. The wastes they produce are water, carbon dioxide and nitrates from the protein. These waste products all contain oxygen.

Decomposer bacteria in the mud-flats live in an oxygen free or anaerobic environment. In many ways it is very similar to the situation before the cyano-bacteria started flushing the atmosphere with oxygen. None of their waste products contain oxygen. Instead of carbon dioxide, the hydrogen rich global warming gas methane,

or marsh gas, is produced. Sulphur in plant protein becomes the very smelly hydrogen sulphide you get from rotten eggs. Even the mud itself changes colour from grey-brown to black.

There is one huge upside to the anaerobic environment of the mudflats. Some types of bacteria have an alternative way of getting energy. They do this by changing simple chemicals rather than organic ones that come

from once living organisms. Since the energy comes from chemicals rather than light we call these bacteria chemosynthetic. The chemicals they use are nitrogen compounds derived from land based agriculture. These chemosynthetic bacteria convert these compounds to nitrogen gas which returns to the atmosphere.

It is encouraging that bacteria are playing a big part in healing the Firth.

The amount of nitrogen arriving in the Firth in dissolved form is very similar to that leaving to the atmosphere. It is not accumulating and, when inflows decrease, so will the extra phytoplankton growth.

Those decomposer bacteria don't need any extra food. Their activities are already decreasing the oxygen levels in the water column in late summer and autumn. 

Good for wrinkles but not for birds

One bacteria of particular significance to waders is botulism, which produces a naturally occurring toxin so powerful it was once considered for weaponisation.

Marketed as 'Botox' and injected in low concentrations it has the ability to relax muscles, simulating youth by lessening facial wrinkles and, in other conditions, it can also calm muscular tremors.

But the whole body effect is a lot more dramatic. In the past, levels of toxin in poorly sterilized canned foods were sufficient to cause death.

Should the bacterium (*Clostridium botulinum*) that produces this toxin survive the sterilisation of the canning process it is in the perfect, oxygen-free, protein-rich environment to thrive. Luckily the gases it produces deform the can to give good warning of the danger within.

At full-strength, botulism causes paralysis of muscles like those of the legs, wings and neck resulting in a slow death, unless predation of the weakened sufferer intervenes.

Avian botulism is one of seven types of this condition. The condition is found in many bird groups, ducks, shags and also shorebirds, but is not confined to them.

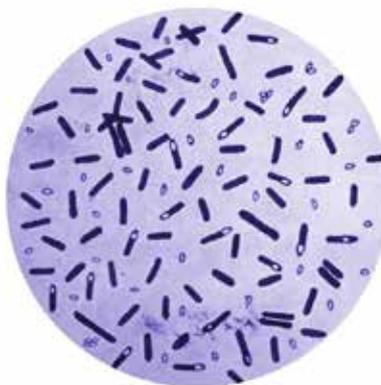
Fish also succumb to an alternative form which explains the impact on shags and other fish-eating birds. The toxin retains its power as it passes through the food web.

Avian botulism is a world-wide phenomenon. When it does occur it is usually in multiple well spread locations. All that is needed are the right conditions.

The bacterium has the ability to exist over long periods in an inactive spore form until these conditions eventuate. Outbreaks of botulism are al-



BOTULISM: (Above) three victims of avian botulism and (below) the bacteria that causes it. Photos / Rachel Hufton, Landcare Research



most always associated with persistent spells of hot weather and the presence of decomposing matter in the shallow waters of wetlands.

In Europe the finger has been pointed at sewage as the source of decomposing matter but it is more usual for plants to be the decay source. Decomposition removes the oxygen from

the water and triggers the bacterial spores to germinate and then multiply. Birds feeding in these habitats will be susceptible to botulism.

The coincidence of many factors is needed for an outbreak of botulism and most of these are external to the habitat, largely unpredictable and consequently unmanageable. However, when an outbreak does occur it is possible to limit its impact.

In hot weather a dead bird can quickly become flyblown and be transformed into a seething mass of maggots. For a bird to eat these in any quantity can be fatal as they are loaded with toxin. So the way to limit the spread of an outbreak is to break the carcass-maggot cycle. Dead birds must be removed as soon as possible and then buried to prevent them becoming fly-blown.

Ray Buckmaster



READY FOR TAKEOFF: Ray and Ann Buckmaster join 1400 painted birds on their final appearance at the Shorebird Centre before migrating. Photo / Adrian Riegen

The Flock heads out to follow the Bar-tailed Godwits around the world

The Flock of brightly painted cutout birds, which started at the Shorebird Centre last summer and spread across the land, has followed our visitors from the Arctic and migrated.

About 1400 of the birds made a spectacular final appearance in the centre grounds for the annual Farewell to the Birds, stayed on for a week so they could be enjoyed by a visiting writer from National Geographic, and then took flight.

Some of the nicest birds will now be sold through the Centre Shop for \$5 each (see the advertisement on the back page). A few special ones will be kept for educational purposes. A small flock will head to the South Island to join the Flash Flocks developed by the Braid group which have been popping up all over the place.

The Flock will also live on through other cutout bird programmes which are springing up in Australia, South Korea and, most recently, in Alaska, where our godwits breed. The Flock blog has also had increasing number of visits from places like Russia and, most recently, more than 200 hits from United States in two days.

This amazing exercise was inspired by an annual display of painted shore-

birds in the north of England which Ray Buckmaster spotted on the internet. A PMNT team led by Ray and Ann Buckmaster and including Gillian and Sarah Vaughan, Trudy Lane, Krystal Pennell, Louisa Chase and Jim and Chris Eagles developed the idea The Flock . . . and it took off.

Starting at the local Kaiiua School, where every pupil made a bird, the birds visited scores of schools, taking with them their wonderful stories and the fact that they are all under threat.

The campaign got a huge boost when Resene gave free test pots of paint to groups taking part and the Living Water partnership provided a grant of \$4500 to get things going.

The highlight was probably the Devonport Flock, organised by Jim, where all 10 schools on the Devonport Peninsula took part, more than 2000 birds stayed on Windsor Reserve for 11 days and thousands of people turned up to see and learn about them.

Although the main focus was on schools, lots of other community groups joined in, including Rotary, 60s-Up, U3A, churches, Pippins and Brownies, marae, art galleries and local art groups, Menz Sheds, the Birds NZ Youth Camp, Manukau Beautification

Charitable Trust. Kiwi Conservation Clubs, A&P shows, Christmas parades and lots of others.

Those who made birds included China's Vice Minister in charge of conservation, Chen Fengxue, then-Prime Minister John Key, Conservation Minister Maggie Barry, Associate Conservation Minister Nicky Wagner and Director-General of Conservation Lou Sanson.

It took a lot of work by a lot of people but The Flock took the message about shorebirds to thousands of adults and children who would otherwise never have been reached.

As he pulled out birds from the final flock display Ray commented, 'The Flock concept now has a life of its own. It started at Pukorokoro Miranda but now has a home in many parts of New Zealand and overseas.

'Shorebirds in New Zealand are the most threatened of all bird groups. The challenges to our migratory and endemic species are huge. The birding community knows, this but it is not widely known by the general public.

'That is why the Flock initiative was necessary. Without doubt it has created greater awareness . . . which is the fore-runner of caring.'

The 42nd Annual General Meeting of the Pukorokoro Naturalists' Trust will be held at the Shorebird Centre on Sunday 14 May at 11am



Annual Report from the Chair

A year of non-stop excitement

The year 2016 was an exciting one, reports chair **Gillian Vaughan**, with the many highlights including our purchase of the land around the Stilt Ponds, The Flock, mangrove clearing and continued great work by many dedicated volunteers.

2016: The Flock, the schools, the Australasian Shorebird Conference in Auckland, continued work in the Democratic People's Republic of Korea, mangrove clearance in the bay, the signing of a Memorandum of Arrangement with China, a film festival, the Robert Findlay Wildlife Reserve, OSNZ youth camp . . . and more!

There are a lot of highlights from 2016 so in this report I'm only going to touch on a few.

I know all council members are going to have their favourite item on that list and it's likely to vary, and I may have forgotten something – 2016 had a lot going on.

My highlight was the completion of the purchase of the Robert Findlay Wildlife Reserve. Members will well know that this one took a few years from start to finish, and finalising the



SIGNED UP: Chinese Vice Minister Chen Fengxue, came to the Shorebird Centre to sign an agreement on protecting habitat and stayed to paint a bird for The Flock.

funding and settling the contract was a huge relief, not only because it was a long project to get through but because this purchase will secure the future of the Stilt Ponds, the only 'off the coast' roost site for both the birds and the birdwatchers.

2016 also saw the migration of the Flock to New Zealand, and then back out again. Picked up from an idea from Lancashire in the UK, the Flock really took off in New Zealand. This was an awareness campaign that really, really worked. Ray and Ann Buckmaster, Jim Eagles and Trudy Lane put a lot into this project and their efforts really paid off.

At the start of the year The Flock was launched with the help of a group of dignitaries at the Centre to celebrate the signing of the Memorandum of Arrangement, an agreement between New Zealand and China to protect migratory shorebirds, but once launched the kids grabbed hold and never let go. In terms of numbers engaged in a specific awareness project I have no doubt that this has been the most successful project the Trust has run. What The Flock does next is still up in the air but I doubt that it will be going far! Don't forget to keep up on <http://theflocknz.blogspot.co.nz/>.

The field course continues to be a flagship event for us and its success is really due to the quality of the volunteer tutors. I've been involved for the full course for several years now and the sheer level of knowledge that passes through the shorebird centre over that week is astounding.

Ann and Ray Buckmaster, who have been conducting the ecology sessions for a few years now are stepping back this year and I'd like to take the opportunity to thank them for their

Our AGM guest speaker could be the next Conservation Minister

Ask around Parliament who might be Minister for Conservation in a Labour-Green Government – should there be one after the next election – and naturally enough no one know for sure. But there is a bit of a consensus that the most likely choice is Green Party spokesperson for the environment Eugenie Sage.

That makes her a very interesting choice as the guest speaker for the annual meeting of an organisation like the Pukorokoro Miranda Naturalists' Trust. It should give us a good idea what sort of policy environment we might be working in if there is a change of government. As well as the environment, Eugenie is Green spokesperson for primary



industries, Christchurch and Land Information and is a member of Parliament's Local Government and Environment select committee.

Before entering Parliament in 2011 she was a member of Environment Canterbury Regional Council. Eugenie worked for Forest and Bird for 13 years and played a key role in the campaigns to protect West Coast forests and the South Island high country, and its RMA advocacy to protect indigenous biodiversity. She has degrees in law and history and a diploma in journalism.

The 42nd Annual General Meeting of the Pukorokoro Naturalists' Trust will be held at the Shorebird Centre on Sunday 14 May at 11am

work.

2016 also saw a Field Sketching and Wader ID courses as well as a youth camp run by OSNZ using the Shorebird Centre as a base. This was a fantastic camp to be involved in and I look forward to hearing what the OSNZ camp is like this year.

As the year came to an end we started to see a rise in visitor numbers which looks to have carried through to the early part of 2017. That's a great sign and we'll keep an eye on that to see if the trend continues.

Disappointingly the year also ended with a spate of break-ins at the car-park. Council is currently reviewing potential security solutions, and Keith has been in regular contact with the police.

As always I'd like to thank our



staff and volunteers. 2016 started with Keith, Louisa Chase in the assistant role and Rachel Hufton as our summer shoreguide. As the year ended Kristelle Wi (above) took up the assistant role and Wendi Lane (below) the summer guide. Keith of course remained!



We are lucky to have numerous volunteers helping out, short and long term. Volunteers help with running the information centre, stuffing the magazine, helping at the hide, helping with counts and catching. I'd like to particularly tip my hat to Gwenda Pulham who has of late spent many hours in the carpark to help keep our cars secure while we birdwatch. It is not the most glamorous of jobs but it is appreciated.

I'd like to thank all of our members for their continued support, and hope to next year report on an exciting 2017.

MINUTES OF THE 41st ANNUAL GENERAL MEETING OF THE PUKOROKORO MIRANDA NATURALISTS' TRUST HELD AT THE SHOREBIRD CENTRE ON SUNDAY 29 MAY 2016 AT 11.10am.

PRESENT:

The Chairperson (Gillian Vaughan), Secretary (Will Perry), Treasurer (Charles Gao) and 52 others.

APOLOGIES: Martin Day, Joy Gough, Morag McDonald, Hannah Aiken, Len Taylor, Pat Taylor, John Stewart, Kaye Milton, Mike Hazel, Meg Collins, Mike Collins, Ross Duder, Helen Duder, Jim Eagles, Lynda Underhill. Apologies Accepted (Wendy Hare / Bev Woolley).

MINUTES:

The minutes of the 40th AGM held on 24 May 2015 had been published in PMNT News. The minutes were approved as a correct record. (Gillian Vaughan/Bruce Postill)

MATTERS ARISING FROM THE MINUTES: None

CHAIRPERSON'S REPORT:

Gillian Vaughan's report from the chair was published in Pukorokoro Miranda News and Gillian spoke to some of the issues mentioned.

- Appointment of Krystal Pennell as Education Officer.
- Purchase of the Lane property, which includes the Robert Findlay Reserve - the latest settlement date is 10/06/2016. PMNT still has to find some of the funds for this purchase and the Lane family has been very patient. Ecological Management Plan required and to include issues of hydrology and weed control.
- Board Walk with full wheelchair access to main hide to be funded by DOC / Fonterra (Living Water) and to include an upgrade of the Limeworks Car Park with fencing and resurfacing.
- Mangrove Control.
- OSNZ Youth Camp in March 2016 for people between 12 and 16

AGENDA

for the 42nd Annual General Meeting of the Pukorokoro Naturalists' Trust

Apologies for Absence

Minutes of the AGM held on 29.05.2016

Matters arising from the minutes

Chairperson's Report

Treasurer's Report

Election of Officers (Treasurer, Secretary, Auditor, 10 Council Members)

Subscriptions for the year ending 31/12/2018

General Business

The 42nd Annual General Meeting of the Pukorokoro Naturalists' Trust will be held at the Shorebird Centre on Sunday 14 May at 11am

years of age.

- The Flock – championed by Ray and Ann Buckmaster and others.

- Forthcoming Shorebird Conference on 01/10/2016.

- Feature on Godwit E7 on Te Papa blog.

- Importance of volunteers in all their activities, including staffing of the Shorebird Centre when Keith and Louisa are not available.

It was moved that the chairperson's report be received (Gillian Vaughan/Wendy Hare). CARRIED.

MATTERS ARISING FROM THE CHAIRPERSON'S REPORT:

- Land – Stuart Chambers expressed the view that it would be better for Waikato Regional Council to own the land and for PMNT to lease it. Gillian commented that PMNT has a greater interest in the land than either WRC or DOC.

- Stuart also asked whether PMNT has plans to provide toilets close to the Limeworks. Gillian commented that there will be toilets provided as part of the cycle trail.

- Youth Camp – Ann Buckmaster reported that the Youth Camp had been a lot of hard work but very rewarding.

- In response to a question about mangrove control, Gillian explained that it is necessary to control mangrove seedlings in order to preserve roosting sites for the shorebirds.

- Stuart Chambers asked whether we expect the birds to return to Taramaire. Gillian responded that we hope so but that the area in front of the hides has greater importance.

TREASURER'S REPORT:

Charles Gao reported that the Financial Report was not yet finalised but that it will be published in a future edition of Pukorokoro Miranda News.

There are some outstanding issues on the detail of the Financial Statements that Charles is discussing with the new auditors (Staples Rodway).

Gillian and Charles reported that

we expect to have made a loss in the last Financial Year because we have funded the Summer Shorebird Guide from our own funds and because we have spent more than usual on overseas speakers. However, funding received from "Living Water" has mitigated that loss.

In response to a question from Alison Chambers, Charles reported that shop sales are up slightly on the previous year and Gillian reported that accommodation revenue is very slightly up on the previous year. Grants, Bequests and Donations continue to be received. Membership is slowly declining.

Online payment of subscriptions is now available.

In response to the question, 'Do we choose an ethical bank for our banking?' Gillian responded that PMNT Council had not yet considered the issue.

It was moved (David Lawrie / Laurie King) that the accounts be accepted conditional on publication in Pukorokoro Miranda News. CARRIED.

David Lawrie paid tribute to Charles Gao for his handling of the transition to new auditors.

ELECTION OF OFFICERS:

Secretary – William Perry elected unopposed.

Treasurer – Charles Gao elected unopposed.

There were 11 nominations for Council, namely David Lawrie, Adrian Riegen, Gillian Vaughan, Wendy Hare, Estella Lee, Trudy Lane, Ray

Buckmaster, Ann Buckmaster, Bruce Postill, Cynthia Carter, Jim Eagles. These 11 candidates were elected unopposed.

Auditor: Staples Rodway proposed: CARRIED.

SUBSCRIPTIONS:

Proposed (Gillian Vaughan/Wendy Hare) that subs remain unchanged for 2017. CARRIED.

GENERAL BUSINESS:

1. PMNT News - Stuart Chambers paid special tribute to Jim Eagles for the excellence of the magazine, Pukorokoro Miranda News.

2. Cycle Trail – Keith Woodley reported that there has been activity in the section from Pukorokoro Stream to Waitakaruru. The section that runs from Kaiaua past the Shorebird Centre will follow.

3. Burglary at Shorebird Centre – Cash Register stolen with an estimated float of \$300 cash. This is the most severe example of theft at the Centre to date. New Cash Register to be installed and secured.

4. Thefts from cars burgled at Limeworks Car Park continue to be a problem.

5. Stilt Pools – Stuart Chambers would like to see a widening of the road to make it easier to watch birds on the Stilt Pools from the road.

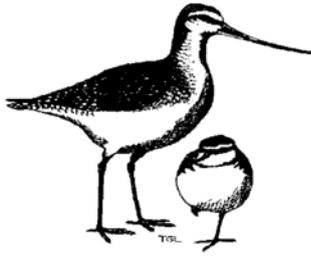
6. PMNT Council – Bev Woolley paid tribute to PMNT Council and a special tribute to Gillian Vaughan for excellent governance of the Trust.

The meeting closed at 11.58am.

Treasurer's Annual Report

It wasn't possible to complete the Treasurer's Report in time for it to be included in the magazine. The report will be circulated at the Annual General Meeting and placed on the PMNT website.

PUKOROKORO MIRANDA NATURALISTS' TRUST



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MirandaShorebirdCentre

Manager: Keith Woodley
Centre Assistant: Kristelle Wi

Pukorokoro Miranda Naturalists' Trust Council

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Deputy Chair and Banding
Convenor: Adrian Riegen
riegen@xtra.co.nz
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Secretary: Will Perry
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emlynp@actrix.co.nz
Treasurer: Charles Gao
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Council members: David Lawrie
(Immediate Past Chair), Estella
Lee, Wendy Hare, Bruce Postill,
Trudy Lane, Cynthia Carter, Ann
and Ray Buckmaster, Jim 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.

Editor: Jim Eagles
eagles@clear.net.nz
(09) 445 2444 or 021 0231 6033

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.

Have your own flock of waders at home

With the Shorebird Centre Flock having migrated we've decided to offer some of our most colourful birds for sale in the Centre Shop **for only \$5 each.**

This is a unique opportunity to plant godwits, knots, oystercatchers and wrybills in the garden, in pots or perch them on the wall and brighten up your life.



\$5

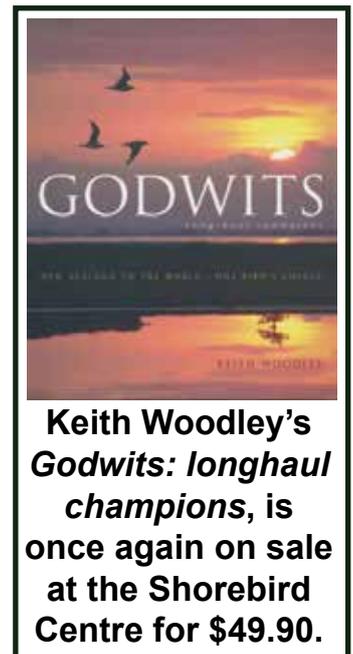


SUPERB NEW TILES now in stock at only **\$19.90** each



See our range of lovely bird tea towels for **\$12.50**

Cushion covers from **\$14.90** to **\$19.90**



Keith Woodley's *Godwits: longhaul champions*, is once again on sale at the Shorebird Centre for **\$49.90.**

The Shorebird Centre is always worth a visit to see the birds, enjoy the displays and chat with Keith or Kris. 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.