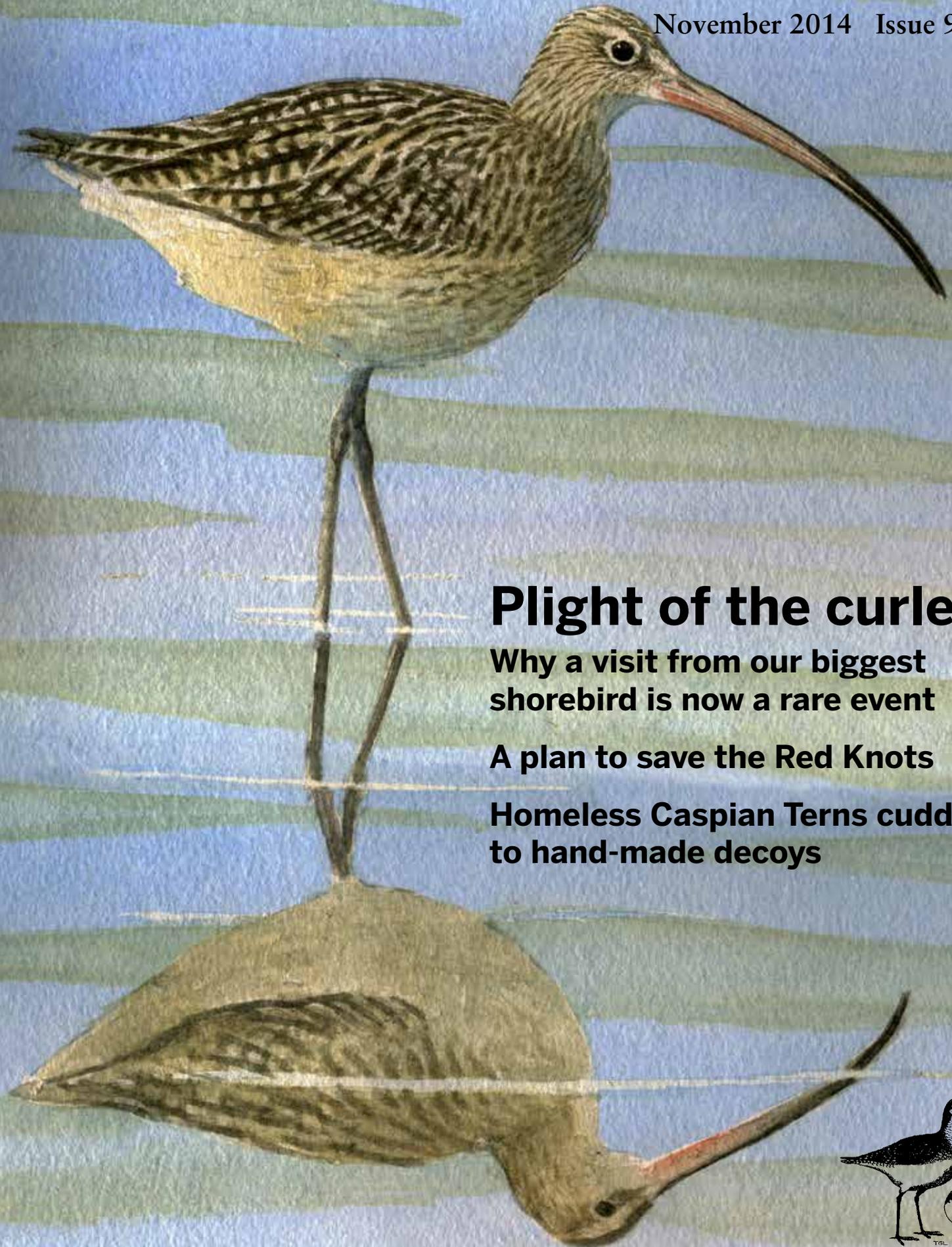


Pukorokoro Miranda **News**

Journal of the Pukorokoro Miranda Naturalists' Trust

November 2014 Issue 94

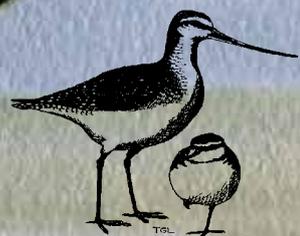


Plight of the curlew

Why a visit from our biggest shorebird is now a rare event

A plan to save the Red Knots

Homeless Caspian Terns cuddle up to hand-made decoys



A fresh face at the hides this summer

There will be a new Shorebird Guide welcoming visitors to the hides this summer.

Kristelle Wi, who has done the job superbly for the past four years, has decided it is time to move on, though she will still run the pest control programme along the coastal strip.

With ASB Community Trust having once again agreed to provide a grant of \$17,500 to cover the wages of a guide, PMNT has appointed Charmaine Stanley, a graduate of the 2011 Miranda Field Course.

Charmaine, who says 'I've always been crazy about nature ever since I was a child', comes originally from Wellington. She moved to the area to work as a nurse at Thames Hospital 'and the shorebirds immediately caught my attention'.

Then, when her mother was up from Wellington for a visit, 'I was taking her on a tour when I just happened to spot a flier advertising the field course and I was instantly beside myself with excitement to participate.'

When she did the course it crystallised a growing dissatisfaction with nursing and the desire to take a different direction. 'I left my job as a registered nurse, moved down to Palmerston North, and started my BSc in ecology and zoology.'

'What a roller coaster ride it has been! Returning to study as a mature student is an eye opener, and hard work, but definitely a rewarding experience.'

'Over the last three-and-a-half years I've worked hard to be involved in as many cannon netting and mist netting expeditions as I can, fitted in around my busy study schedule. My passion for all of New Zealand's birds and preserving the environment they



NETTED: Charmaine Stanley on a cannon-netting trip near Darwin.

need to survive has only grown.

'I will be returning to Massey University next year to complete my honours year. What happens after that, well, I'll just have to wait and see.'

Charmaine said she was looking forward eagerly to starting work as the Shorebird Guide in early November. 'I hope to meet many of you over the summer out at the hide.'

Grants

As well as that grant from the ASB Community Trust, PMNT continues to benefit greatly from support provided by a range of organisations.

Waikato Regional Council has recently made a \$1700 grant towards the

pest control work. This will be used to buy new traps and pay for baits.

Chisholm Whitney Family Charitable Trust has given \$9000 for upgrading computer gear and creating mobile display panels.

Ron Greenwood Environmental Trust has donated \$1100 to assist with the much-needed replacement of mist nets and other banding equipment.

Bequests

The Trust has also benefitted from generous bequests from longstanding members. Nanette McLauchlan, who served on the council from 1998 to 2007 left \$15,000 in her will. Kay Haslett, who was secretary from 1988 to 1995, has left about \$10,000. Eila Lawton has also left the Trust \$10,000

If you'd like to consider doing something similar a copy of the trust's legacy letter is available from the Shorebird Centre.

E7 still going strong

Yet another sighting has been made of the remarkable E7. The record break-

What's on at the Shorebird Centre

21-23 November, Wader Identification Workshop
Tutors Keith Woodley and Gillian Vaughan.

17-23 January 2015 The Miranda Field Course

Now in its sixteenth year the Miranda Field Course is perfect for any naturalist. This course is so popular that it is already full but you can go on a waiting list.

ing Bar-tailed Godwit was spotted in mid-September by Tim Barnard still hanging out in her Maketu Estuary retirement home and looking reasonably well considering her age.



An unexpected guest at the latest PMNT Council meeting was Digi Dotterel, a very large NZ Dotterel, who like many of her feathered bretheren was looking for a safe home. Digi was made by Council member Ann Buckmaster (above) as mascot for a DOC digital media programme. But when the programme was cancelled poor Digi had nowhere to go.

Digi lounged around the Shorebird Centre and, naturally, attended the annual Dotterel Management Course where she met up with Joanna McVeagh from the Wairarapa. These days the cuddly bird - now renamed Delta Dotterel - is a key member of the Riversdale Beach Dotterel Defence Group taking her environmental message to beach displays and school groups.

Environmental education

PMNT has contracted experienced environmental educator Robyn Irving to scope out what would be involved in producing an updated range of education materials.

Until recently the Shorebird Centre received regular visits from school groups learning about conservation. But in the last few years they have declined markedly due to curriculum changes, cost of transport, health and safety requirements and problems getting sufficient adult supervisors.

The existing educational kit, prepared in 1999 in conjunction with the Department of Conservation, has been well-used by schools but now needs updating and expanding.

Manager Keith Woodley says employing Robyn is a first step in a long-term plan to revitalise the Trust's links with schools. 'Preparation of new education resources for junior schools is the first step, but we also want to include secondary schools as well. Our wider long term vision is to develop an education outreach programme where we can take our message to schools as well as facilitating class visits to Pukorokoro Miranda.'

K2K Cycleway

The Trust has given its approval to a revised route for the Kopu to Kaiaua (K2K) branch of the Hauraki Cycle Trail which it is satisfied will avoid sensitive bird areas but DOC still has concerns about the impact on the chenier plain. The Trust's approval is also subject to an undertaking from Hauraki District Council that construction will not be carried out during times when birds might be adversely affected. The council has given assurances that dog control along the route will be policed more rigorously.



This little fellow is the first ever Spoon-billed Sandpiper chick to be hatched in the wild by a hand-reared bird.

Spoon-billed sandpipers are critically endangered and the news confirms to conservationists that the birds they hand-rear can go on to breed naturally once released.

Two years ago, aviculturist Roland Digby hatched this chick's mother in northeast Russia and fed and protected her for her first three weeks, before releasing her to migrate 8000km to southern Asia alongside wild birds. Until now it wasn't known whether hand-reared birds would return to breed themselves.

Roland says the arrival of the chick made him 'incredibly proud of this little bird, who has flown half-way round the world on just her instincts, managing to find the few safe refuges and dodge illegal trappers. . . Consid-

ering all that, the fact that she made it at all is cause for celebration. That she's hatched a chick represents real hope for the Spoon-billed Sandpiper.'

Chenier Plain

Scientists at the University of Auckland are carrying out research into the development of the shell banks which make up the internationally significant chenier plain at Pukorokoro Miranda.

Dr Murray Ford, a coastal geomorphologist, says their work involves attaching tiny electronic tags, similar to the identification tags planted in dogs, to shells which are then released on to the mudflats and beaches. 'We return 4-6 times a year with a metal-detector-like instrument which helps us locate tagged shells and reads the unique ID number. Real needle in the haystack work, but the results have been encouraging so far.'

The project allows the team to track the movement of shells across the mudflats and the breakdown of shells as they are chipped, cracked and fragmented.

Arctic Migrants

Bar-tailed Godwit	3500+
Great Knot	2
Red Knot	1000+
Ruddy Turnstone	4
Sharp-tailed Sandpiper	6
Marsh Sandpiper	1
Red-necked Stint	3
Pacific Golden Plover	6
Curlew Sandpiper	5
Eastern Curlew	1
Black-tailed Godwit	

New Zealand Species

Wrybill	200+
NZ Dotterel	
Banded Dotterel	50
SI Pied Oystercatcher	500+
White-fronted Tern	
Black-billed Gull	
Pied Stilt	
Royal Spoonbill	30
White Heron	2
Cattle Egret	23
Bittern	

Birding stars line up to celebrate Trust's 40th birthday party

An impressive programme of events is being organised to mark the founding of the Trust in 1975, including celebrity speakers, a members lunch and competitions for children and photographers.

Focal point of next year's 40th birthday party for the Pukorokoro Miranda Naturalists' Trust will be a lecture series, in conjunction with the Auckland Museum, aimed at raising the profile of shorebirds.

Already four distinguished experts have indicated their willingness to help celebrate the Trust's birthday by coming here to speak:



Dr Pavel Tomkovich has since 1977 been Curator of Birds, and head of the Ornithology Department of the

Zoological Museum at Moscow State University. Dr Tomkovich is one of the foremost authorities on Arctic shorebirds, particularly the Calidridinae sandpipers, which includes the Red Knot, the second most numerous tundra breeding species to occur in New Zealand.



Professor Theunis Piersma, Professor of Global Flyway Ecology at the Animal Ecology Group, Centre for Ecological and Evolutionary Studies at the University of Groningen and Senior Re-

search Scientist and Wadden Sea team leader at Royal Netherlands Institute for Sea Research. Earlier this year he was awarded the Spinoza Prize, the highest honour in Dutch science, by the Netherlands Organization for Scientific Research.



Scott Weidensaul, an author and naturalist, who has written more than two dozen books on natural history,

including *Living on the Wind: Across the Hemisphere with Migratory Birds* which was nominated for a Pulitzer Prize. In addition to writing about wildlife, Weidensaul is an active field researcher focusing mainly on bird migration.



Dr Allan J Baker, Head of the Centre for Biodiversity and Conservation Biology; Senior Curator of Ornithology

at Royal Ontario Museum; Ornithologist and Professor of Environmental and Evolutionary Studies at University of Toronto; and Research Associate at the American Museum of Natural History. Dr Baker is co-chair of the

All Birds Barcoding Initiative steering committee, which aims to identify all the 10,000-plus species of birds in the world with unique DNA sequences from the COI gene, a member of the Committee of 1000 in the International Ornithological Congress and co-founder of the Global Flyway Network of collaborative researchers.

Bird of the year

To help mark its 40th anniversary the Trust is planning a campaign to see the Bar-tailed Godwit named as Bird of the Year for 2015.

The Bird of the Year is a contest organised by Forest & Bird and voted on by the public. In 2013 the Mohua or Yellowhead won with 2464 votes out of the 12,892 cast. The godwit was among the 51 birds nominated for the title but got only 74 votes so clearly there's plenty of work to be done to boost its profile for the 2015 contest.

This year's competition, which as it happens focuses on seabirds, is now in full swing and voting will run until 24 November. If you'd like to find out more see www.birdoftheyear.org.nz.

Photographic competition

Another event in next year's birthday celebrations will be a photographic competition judged by Bruce Shanks who runs the Trust's Photographic Courses

There will be two sections: one for the best Bar-tailed Godwit photo taken anywhere and one for the best Pukorokoro Miranda photo, with prizes of \$100 book vouchers from our shop for each. But, in addition, the Miranda section will be divided into sub-sections for Fauna, Flora, Landscape and People each of which will earn a \$50 voucher for the best photo.

Children's competitions

Local schools will be invited to join in competitions for the best writing and the best posters on the conservation of shorebirds. The theme will be: "Our Godwits are not able to speak for themselves. Can you speak for them? Can you design a poster or write creatively to show something about the life of these special birds" 

Shorebird celebrations

The programme for the 40th birthday celebrations is as follows:

40th birthday lunch

21 February at the Shorebird Centre. There will be a series of speakers reminiscing about the history of the Trust. Watch the website for details.

Pavel Tomkovich

15 March, Autumn Migration Day at the Shorebird Centre (high tide 2.40pm)
18 March, lecture at the Auckland Museum

Scott Weidensaul

30 September, lecture at the Auckland Museum
4 October Welcome to the Birds Day at the Shorebird Centre

Theunis Piersma

22 November, open day at the Shorebird Centre (high tide at 4.15pm)
25 November, lecture at the Auckland Museum

Luring Caspian Terns to a safe haven

Port Waikato's Caspian Tern colony lost its island home to erosion a few years ago. **David Lawrie** reports on a cunning plan to persuade the terns to join some NZ Dotterels in a new home.



UNREAL, above: Birds NZ members making the decoy terns. Below: Caspian Terns join the decoys in the protected area. Photos / David Lawrie

The river mouth at Port Waikato is a very changeable environment, in many ways similar to the shellbanks at Miranda, with constant changes forged by the wind and currents.

In the 1980s an island formed in the centre of the river mouth which provided a safe breeding ground for a large colony of Caspian Terns and also Black-backed Gulls, Variable Oystercatchers and NZ Dotterels.

But in the 2000s the island was slowly eroded away as the river moved further north and by 2004 the tern colony was abandoned. The birds were eventually found nesting in a pine forest near where sand was being mined for the iron. However, changes at this site have made it unsuitable for the birds.

In recent times Karen Opie has established a beach care group in Port Waikato which has been trying to encourage NZ Dotterels to nest on the sandspit on the southern side of the river mouth where a large area has been fenced off to try to restrict human activity.

Karen and her team have now developed a project to try to attract the Caspian Terns to move to this sanctuary and establish a breeding colony. This, it is hoped, might help protect breeding NZ Dotterel from Harriers and Black-backed Gulls as well as providing a visual and vocal reminder to the public to take care.

In an attempt to encourage the terns, Karen and several members of Birds NZ have carved polystyrene decoys to be placed within the fenced area. Members from the Port Waikato community and local art group "Art@thePort" enjoyed an afternoon of decoy painting. Karen also arranged for Caspian Tern colony calls to be played through a speaker system in the area.

When the decoys were placed on the spit with the sound equipment there was an immediate result. Within half an hour there were birds roosting in the vicinity. Since then groups of Caspian Terns have regularly been seen in the area. There is no sign of breeding yet, but it is early in the season.

Karen is not aware of any previous attempts to re-establish a Caspian Tern colony by this method in New Zealand and we look forward to the coming years with some anticipation.

If this is successful at the Port a similar system could be used to try to attract a colony of Caspian Terns to nest on the shell spit outside the old hide at Miranda. This would be another attraction for visiting birders. 





EASY TO SPOT: A curlew towers above the oystercatchers and godwits.

Photo / Ian Southey

Standing out in a crowd

The spectacular presence of an Eastern Curlew at Miranda inspires **Keith Woodley** to muse on the life and problematic future of our largest shorebird.

Shorebird identification can be tricky. Trying to sort out a bunch of distant brown lumps of varying sizes strewn over an extensive mudflat could challenge anyone. Even when they are in closer view, it may still be difficult to separate one sandpiper from another, or determine which small plover that is when it could be one of four species.

On the other hand, some birds are considerably easier. A Pied Oystercatcher for instance, or a Ruddy Turnstone: the plumage patterns of both are strongly contrasted dark and white, even before one considers the splashes of bright orange – the bill of the oystercatcher and the legs of the turnstone.

Among the brown birds too there is one that stands out – in every sense of that expression – because there can be no mistaking an Eastern Curlew, especially if any other shorebirds happen to be in close proximity. The largest of all the world's shorebirds should be easy to distinguish – even before one registers its enormously long decurved bill.

One curlew has been present at

Miranda for much of the year. This is quite a significant event. Not compared with the 1990s when there were regularly anywhere between three and seven birds here, even up to 13 on one occasion. But with only two records over the last few years it has become an extremely rare sight. Sadly this is not only true of Miranda, or New Zealand in general, but elsewhere on the flyway as well. For this population, found only in the East Asian-Australasian Flyway, appears to be in deep trouble.

Following recent strong population declines in the flyway the Eastern Curlew qualifies, under IUCN Red List criteria, for the status of Vulnerable at both global and regional level.

Observed declines have led to a preliminary population estimate of 32,000, down from a previous figure of 38,000. However, expert opinion suggests even this may overstate the case and the current population may not exceed 20,000 individuals. Non-breeding surveys in Australia have indicated a population decline of 30–40 per cent in three generations (30 years). Approxi-

mately 1,800 birds are thought to have disappeared following the reclamation of a major staging site at Saemangeum, South Korea. With growing concern that the already small population may yet be overestimated it is thought that additional data may support upgrading its status to Endangered in the near future. Loss or degradation of habitat, particularly at stopover sites in the Yellow Sea region, is clearly a driver of the population decline.

Eastern Curlews share with a number of species one particular distinction: their scientific name is not all that it seems. For example, Terek Sandpipers were named from a specimen collected near the mouth of the Terek River on the Caspian Sea, yet the species is extremely rare in that region.

As for our curlew, one place it does not occur, despite its official taxonomic name, *Numenius madagascariensis*, is Madagascar. French naturalist Buffon bestowed the name in 1760, apparently confusing the large Indian Ocean island with Macassar, in Sulawesi, and Linnaeus maintained it six years later.



GLORIOUS: The curlew now at Miranda flies across the mudflats.

Photo / Bartek Wypych

'Linnaeus no doubt meant to write *macassarensis*,' says one charitable account. HANZAB does however list one intriguing record from eastern Iran. Perhaps that individual was on its way to Madagascar to investigate further!

The distribution of the two curlew species found in our flyway is denoted in their common names. The Eurasian Curlew occurs in several flyways from Western Europe to East Asia, but the Eastern Curlew is strictly confined to the EAAF. Its breeding range extends from eastern Siberia and Kamchatka to northeast China and northeast Mongolia.

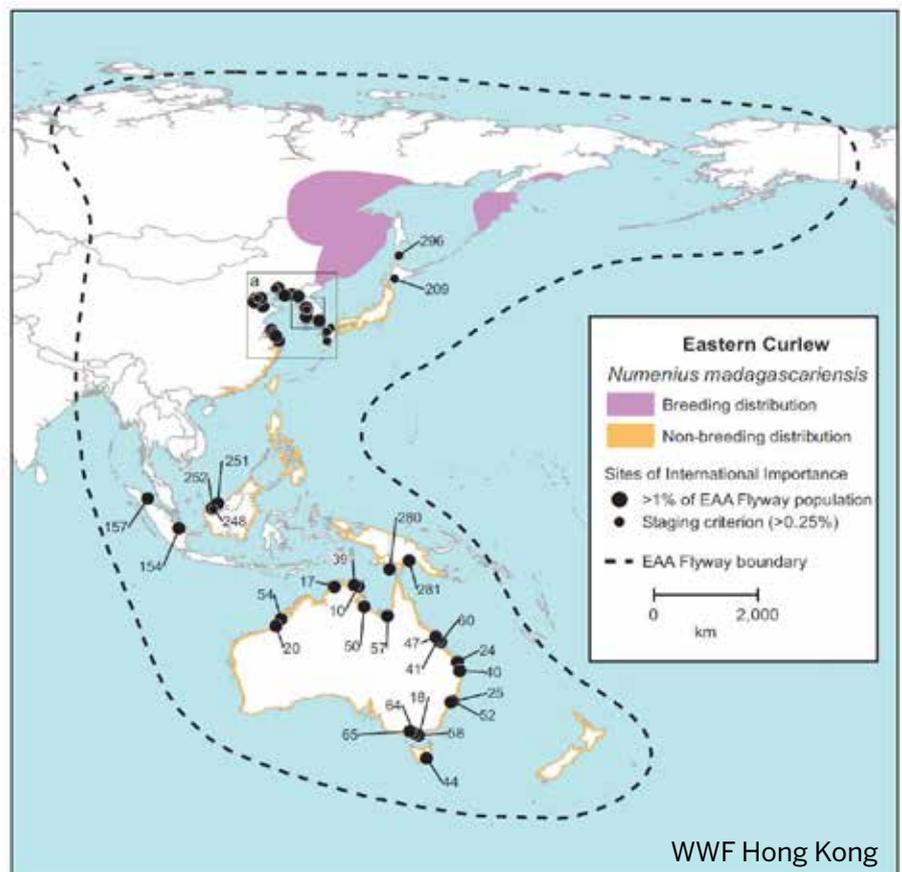
Typical habitat is open mossy or transitional bogs, moss-lichen bogs, wet meadows, swampy shores of small lakes. In the non-breeding season over 70 per cent of the population is found in Australia, with the remainder spread between Indonesia, Papua New Guinea, and southeast China. Southeast Queensland is the major stronghold with Moreton Bay and the Great Sandy Strait supporting at least 25 per cent of the entire population.

New Zealand is clearly at the edge of their range for they have never been particularly numerous here. The 37 birds seen at Farewell Spit in 1962 remains the record for one flock. The trend from national census data in

recent decades is clear and stark: from a peak of 45 counted throughout the country in 1982 there were just 8 recorded in 2013.

During northward migration one stopover site stands out above all

others: Yalu Jiang. As is now widely known, counting the huge multi-species flocks up there is a challenging exercise. But generally the curlews, towering over any other shorebirds, are much easier to record, except that



both species, Eurasian and Eastern, can often be found together. The whiter underparts, back and rump of the Eurasians make them fairly easy to separate in flight; but on the ground, and at a distance, and often in murky light one is often compelled to merely record 'curlew sp' indicating the two species could not be distinguished.

Nevertheless, when good counts can be made, the importance of Yalu Jiang is abundantly clear. The 6,818 Eastern Curlews counted in 2009 amounts to 34 per cent of the newly estimated population. The next-ranked East Asian site was Kanghwa Island, South Korea, with 2,120 on 1 May 1998. Shuangteizehekou, on the opposite side of the Liaoning Peninsula from Yalu Jiang, is another important site with a peak count of 1,817 curlew.

Perhaps it is their size – historically a tempting target for hunters throughout their range – but curlews are among the most vigilant and wary of shorebirds. On a high tide roost they usually segregate themselves from other birds, standing scattered along the fringes of roosting flocks, not unlike Pacific Golden Plovers. They are also vocal – a loud plaintive 'coor-ee' echoing around the mudflats as they take flight.

They are almost entirely coastal birds in Australia and New Zealand with inland records exceedingly rare. Perhaps the most remarkable such record was the bird found sitting on a road in Katherine Gorge in the Northern Territory in the middle of the desert. Such exceptions aside, they are more likely to be found around coastal estuaries, mangrove swamps, or saltmarsh and tidal flats.

According to a recent WWF report, destruction and degradation of intertidal staging sites, particularly in the Yellow Sea, through reclamation, pollution, disturbance, and reduced river flows is the greatest threat to curlews. But they also may face direct persecution, including subsistence hunting and deliberate poisoning, throughout their range, while farming, fire management, and coastal development represent potential threats to the southern part of their breeding range.

An apparent difference in migration strategy between males and females may also be a potential threat. Coastal sites in southern Australia that tend to



HANDSOME VISITOR: Curlew at Miranda.

Photo / Ian Southey

be predominantly occupied by females are more threatened by disturbance and development than northern sites where males predominate.

Further reading: Handbook of Australian,

New Zealand and Antarctic Birds (HAN-ZAB) Vol III, Conklin, J.R., Y.I. Verkuil & B.R. Smith. 2014. *Prioritizing Migratory Shorebirds for Conservation Action on the East Asian-Australasian Flyway*. WWF-Hong Kong, Hong Kong 

Singing farewell to the curlew

In 2008 I spent six weeks with biologist Brian McCaffery at a remote field camp on the Yukon-Kuskokwim Delta. Among his many talents is the ability to rewrite the lyrics of popular songs to a shorebird theme. During that time he was working on *American Pie*, charting the parlous position of nearly all members of Numeniini, the curlew family. Here's a couple of the verses he wrote.

Keith Woodley

Bye-bye, Numeniini

A long, long time ago, I can still remember how those nature stories made me smile.

And I knew that if had my chance, I'd be part of the romance of Helping to keep wildlife here awhile

But then one story made me shiver, with all the sadness it delivered.

The tale with all the bad news was 'The Last of the Curlews'.

I can't remember if I cried when I read about his fallen bride,

But something touched me deep inside, the day the curlew died.

So, bye-bye to Numeniini

None too heavy by the levee 'cause the levee was dry

And long-billeds wander fields of barley and rye

Singing, 'Will this be the day that I die? Will this be the day that I die?'

Well, have you ever seen curlew love, and have you watched courtship flights above,

Or did the BNAs tell you so?

And do you believe somebody stole the flame within a curlew's soul,

And can you calculate the real toll?

Well, I know their future's looking grim and their prospects now seem mighty slim.

Were they destined to lose by the habitats they choose?

Who woulda ever thought they'd end up stuck on drowning atolls just like Truk?

Rising sea levels—they're outa luck, the day the curlews die.

So, bye-bye to Numeniini . . .



UNDER THREAT (from left): A Red Knot in breeding plumage on the Manukau Harbour; construction of a seawall at Bohai Bay puts the knots' main stopover area at risk. Photos / Ian Southey, Adrian Boyle



NZ must act to save our Red Knots

If New Zealand can find \$1 million to build an education and visitor centre at Bohai Bay, in China, it could be the catalyst needed to have the mudflats and salt ponds there turned into a nature reserve where Red Knots can rest on their way to and from New Zealand, writes **Adrian Riegen**

1 September this year marked the 100th anniversary of the death of Martha. Who was Martha? She was the last remaining Passenger Pigeon and with her death at around midday on 1 September 1914 in Cincinnati Zoo the species became extinct.

Never has the time of the extinction of a species been so precisely known. Less than a century earlier it was the most numerous species of bird on the planet with single flocks estimated to contain up to 10,000,000,000 birds. Yes, that's right, ten billion birds.

What a great birding spectacle that would have been. If they still existed seeing those flocks would surely be at the top of any birder's wish list.

Why should New Zealanders care about this? Well, surely no one really thinks that the extinction of the Passenger Pigeon was a good thing. But, more importantly, the fact that humans could wipe out the most numerous bird in less than a century is quite a sobering thought.

We are faced with a similar threat much closer to home with the Red Knot. This is still New Zealand's second most numerous Arctic-breeding wader after the Bar-tailed Godwit. Some birders in New Zealand will have seen flocks of 10,000 or more knots around the northern harbours or Farewell Spit. Sadly, those impressive flocks, whilst only one millionth the size of a Passenger Pigeon flock, are now increasingly rare and are set to become a thing of the past.

I'm not suggesting the Red Knot will suffer the same fate as the Passenger Pigeon any time soon. But if we do nothing, then in the near future expect a flock of 100 Red Knots to be an exciting sight, worthy of a note in the *Pukorokoro Miranda News*.

It doesn't have to get this bad and in this case we can actually do something about it. As Yalu Jiang is the major staging site for Bar-tailed Godwit, so the Luannan coast of Bohai Bay, China, is the Red Knot's major staging site.

This has negative and positive implications. The negative is that if this site is destroyed then the majority of the species will be lost. The positive is that if this one site can be saved then so can the bulk of the knots. Now surely that has to be worthwhile?

So can the site be saved? Well, yes, I believe it can, but it will require an international effort. Plans are in place to make the mudflats and saltworks ponds a nature reserve and to build an education/visitor centre there. The only thing holding it up is funding.

An Australian mining giant was in line to help but has pulled out. How much money is needed to help secure the 10km stretch of coast? Probably less than \$1 million. In the scheme of things that is not a great deal and it would certainly be money well spent.

Can New Zealanders show the Aussies we can do it? The Red Knot is officially designated a native bird in New Zealand so, surely, we have a

moral obligation to do something for its survival.

We once again have a National Government, that traditionally has not had a great conservation track record, but that could change. You can help by writing to the Prime Minister, Minister of Conservation and Director General of DOC, to ask them what steps they are actively taking to ensure Red Knots do not slip up the list to 'Endangered' or worse.

When you do write, suggest to them that setting up these facilities on the Luannan coast would not only ensure a better future for the Red Knot, which in turn will help maintain the biodiversity of our harbours, but would be seen as a wonderful China-New Zealand cooperation project. After all we are constantly told that New Zealand and China are very close friends, and what are friends for?

If those of us who care about the natural world do nothing, are we any better than those that seek to destroy it?

We mustn't allow the Red Knots, - which only last year we found are capable of 10,000km non-stop flights from New Zealand to Bohai Bay - to lose their most vital stopover.

Surely we must learn something from Martha's death 100 years ago and not allow other species to suffer the same fate. So readers, please, if you do nothing else, then write to John Key, Maggie Barry and Lou Sanson and show them you care. 

Captu

A full house of eight Paraparaumu and the Nature Journaling Co mix of work, in water portraying birds both the course had enri courses ... and wou



Tutor Sandra Morris (top left) gets the class busy sketching plants.



Kitty Monk works with daffodils.



ARTWORK (clockwise from top left): Sharon Bensley's field sketches of birds; plant study watercolour of Pied Stilts; a misty morning McCabe. Photo



Birdseye view of Albie McCabe.



Sharon Alderson paints a misty Coromandel.



Wendy Hare concentra

ring the beauty of nature on paper

pupils from places as disparate as Auckland and Waiuku
 e Coromandel took part in this year's Pukorokoro Miranda
 course tutored by Sandra Morris. Participants carried out a
 colour and pencil, at the hides and in the Shorebird Centre,
 n live and stuffed. Afterwards participant Jenny Curry said
 ched and inspired her art and "I look forward to further
 ld be keen to repeat the experience."



Sharon Alderson working in her sketchbook.



Sharon Alderson captured the view from inside the hide; Karen Bensley's sketch in watercolour and pencil by Pam Moore; Albie McCabe's sketch in watercolour by Sharon Alderson; plant study by Albie McCabe / Jim Eagles, Sandra Morris, Brigid Glass, Keith Woodley



Karen Bensley sketches dried plants and seeds.



Participant working on her work.



Sketching by telescope at the shellbank.



DARWIN BIRDLIFE: Delegates to the conference saw several interesting birds including (from left) Little Ringed

Australasian Shorebird Conference

Timely updates, interesting birds and poorly educated dog owners

Adrian Riegen reports from the biennial Australasian Shorebird Conference, held this year in Darwin, a city of consistent weather, smoky skies and bird-chasing dogs, and warns that in 2016 it will be held in Auckland.

A weather forecast for Darwin in September is a pointless exercise, as it is likely to be fine and sunny every day, with a low of about 23°C, a high of 33°C and 60% humidity.

I worked in Darwin in the wet season of 1973 when a forecast was equally unnecessary, as it was 30°C at night, 37° by day and 99% humidity. It rained every day for just long enough to keep the atmosphere as unpleasant as a sauna. Trust me, a 24/7 sauna is distinctly unpleasant. Back then Darwin was a small frontier town, blissfully unaware of what Cyclone Tracy would unleash come Christmas Day 1974. The cyclone destroyed much of the city and a lot of its charm.

This time I was there for the Australasian Shorebird Conference which the Australasian Wader Studies Group organizes every two years. The next conference, in September-October 2016, will be in New Zealand, for the first time since Nelson in 2005, and the task will fall to members of PMNT and hopefully Birds NZ. You have been warned.

A small but hardy bunch made the journey from New Zealand to this year's event which consisted of two days of talks, a conference dinner and field trips. Most talks are 12 minutes long, which is a bit long for a bor-



**Australasian Shorebird Conference
Darwin, Northern Territory 2014**

ing talk (not an issue this year) and frustratingly short for a good talk. However, it is very pleasing that there are so many people keen to share their wader studies with a wider audience.

Talks ranged widely but many touched on the declining wader populations on the East Asian-Australasian Flyway, which is all a bit depressing. Rapid habitat loss in the Yellow and Bohai Seas is a very serious matter that shows few signs of abating. No doubt we shall be hearing more horror stories at the next conference in Auckland, but don't let that put you off attending.

We heard about wader monitoring projects at the Port of Brisbane, some impressive work to recreate wader habitat at Olympic Park in Sydney, an update on the impact on the Great Knot population of the Saemangeum reclamation in South Korea and many other interesting studies.

The last talk, about satellite track-

ing of Little Whimbrel, was so up to date it was almost in real time. Beforehand I sat next to Inka Veltheim (who gave the talk) and she was busy downloading the latest satellite data from birds that had transmitters attached earlier in the year in northwest Australia.

Little was known of their migration routes as they are more of a grassland species and don't gather in large flock on mudflats. Several birds that had been tracked to their Siberian breeding grounds were on their way back to Australia during the conference.

Before the conference there was an early morning field trip to the Darwin sewage treatment ponds. These old style ponds, like we used to have in Auckland, are generally great for all types of waterbirds. The Darwin ponds were no exception but alas the days of wandering freely around sewage farms birdwatching are gone.

To gain entry you must complete a 20 minute online induction course involving a range of health and safety questions. Once on-site we were not allowed out of our vehicles and were followed by a waterworks employee to make sure we did not feel the urge for a quick dip.

The star turn at the ponds is the Little Ringed Plover, a species found throughout Eurasia and through to



Plover, Beach Stone Curlew, Orange-footed Scrubfowl and Chestnut Rail. Photos / Wikimedia, Adrian Riegen

Papua New Guinea, but is only a straggler to Australia. The ponds are the best place to see it, and I think everyone did, but rather distant views through a scope held at a neck-straining angle on the car's window ledge.

With the conference over, the attendees went their different ways, but four of the New Zealand contingent stayed on to join Clive Minton and a group of banders, whose mission was to catch a range of waders for Amanda Lilleyman, a PhD student who is looking into how waders use the various Darwin coastal habitats, including the large new port being developed across the water from the city.

Target species were large birds like Eastern Curlews, Whimbrel, Greenshank and several smaller waders. Alas the curlews and Whimbrel proved too canny even for a bunch of Australasia's top cannon netters. Greater Sand Plover, Grey-tailed Tattler, Red-necked Stint, and Greenshank dominated the catches. Some were fitted with small transmitters so their movements can be monitored over summer.

Sitting on the beach in the tropical sun should pose a serious sunburn risk but the northern Australian pastoralists have devised an ingenious plan to protect the citizens from harmful rays. They set fire to the Top End's so-called grazing lands so a layer of smoke hangs above the landscape and filters out the sunlight. In spite of this, several banders succumbed to heat stroke. The smoke also provides lovely deep orange-red sunrises and sunsets.

Darwin has some beautiful sandy beaches with warm inviting water. Crocodiles and Box Jellyfish also find it very inviting and they are enough to keep people out of the water for most

of the year. It seems they take out their frustration by walking their dogs on 'No Dogs' beaches.

Lee Point beach extends a kilometre or so either side of the Point: one way is a dog walking beach the other way dogs are banned due to the presence of roosting waders. Do the locals care? Some of them obviously not and they are also happy for their pooches to chase the birds. The education system in Australia has failed these people, as they have to walk past four signs from the carpark to the beach that say 'No Dogs'. Several talks at the conference discussed the issue of dogs and 4x4s on

beaches. It is a major problem around Australia, it seems, even in the remotest parts of Cape York.

All in all I think those who went to Darwin enjoyed their time. Some good birds were also seen, among them a specialty of the mangroves, the Chestnut Rail. My own highlight was a pair of Beach Stone Curlew that were attempting to nest on the 'NO DOGS' beach. A common bird is the Orange-footed Scrubfowl that appears quite at home in the wooded and grassed areas of the city.

I invite wader folk to join us in Auckland in two years time. 

Aussies told: It's cheaper to visit Miranda

Bruce Postill reports on the inaugural Australasian Bird Fair in Sydney.

PMNT's presence at the Australasian Bird Fair was in a corner of the BirdLife Australia tent alongside a team promoting Broome. This worked well as when Sydney people were being talked into a Broome visit I was quick to say, 'It's cheaper to visit Miranda!'

Our stand included displays showing godwit flight lines and the East Asian-Australasian Flyway plus a mountain of PMNT brochures and 100 CD copies of the Yalu Jiang survey report. By the end a lot of our brochures remained but they were packed into vans along with the BirdLife Australia material. Perhaps they will appear around Australia at other birding events?

The fair was in many respects akin to a Birds NZ Conference with continuous sessions each featuring four speakers. I spoke in a shorebird session with Dr Richard Fuller (Queensland University), Dr Elena Lappo (Russia)

and Dr Sara Saalfeild (Alaska) all of whom talked about godwits. My presentation covered the history of New Zealand's banding, flags and tracking programmes plus the E7 story.

Later I gave a status report on the New Zealand Rock Wren which was well received. Subsequently the event director Phil Straw announced that the fair was donating \$10,000 to the Rock Wren Project.

There were activities for children like drawing, games, badges, etc, and numerous commercial operators selling bird tours - including some from New Zealand - telescopes, binoculars, cameras, books, artwork, etc.

Overall the Australasian Bird Fair is a worthwhile event though the number of people attending seemed low given Sydney has the same population as New Zealand. I hope the fair continues but it needs a lot more promotion, perhaps with bird tours before and after.

Defending shorebirds in historic Groningen

Keith Woodley finds himself participating in an ancient university tradition in the Netherlands.

The contrast in study species could not have been greater. I met Dan Ruthrauf in Alaska in 2008 where he was my guide around the vast US Geological Survey equipment store in Anchorage where I was fitted out for my time in the field on the Yukon-Kuskokwim Delta. My study species of course was Bar-tailed Godwit; Dan's was a population of Rock Sandpipers that breed on the Pribilof Islands. While the godwits undertake marathon migrations the length of the Pacific, these sandpipers winter in upper Cook Inlet near Anchorage.

Now, on 1 October 2014, I found myself at the University of Groningen in the Netherlands where Dan was to defend his PhD thesis, *On the Frozen Edge: Environmental and physiological constraints in the life history of a northerly-wintering shorebird*.

Founded in 1614, the university sits at the heart of a lovely city of brick and cobblestones. The ceremony is in the imposing Academy Building in front of which six flag poles – bearing among



DEFENDERS: The Beadle leads in (from left) Anne Dekinga, Dan Ruthrauf and Bob Gill.

others the flags of Netherlands, the EU and Friesland - tower over a wide pavement covered in racks of bicycles.

The six members of the College of Deans, led by the Rector Magnificus and the primary supervisor, all in academic robes, file in and take their seats. Of the six, four are deemed to be opponents who will question the candidate. The candidate accompanied by two assistants, or Paranympths, all in frock coats and white ties, then enters. There are people here with connections

to Miranda: the PhD supervisors are Theunis Piersma from the university and Colleen Handel from USGS while one of Dan's Paranympths is Bob Gill.

The first item in the defence procedure is a call for a question from the audience, and I have been honoured with an invitation to respond. There follows an intense interrogation of the candidate by the opponents. It is a polite but robust exchange of questions and ideas to which Dan responds extremely well. His is a complex but fascinating study of birds enduring extreme wintering conditions.

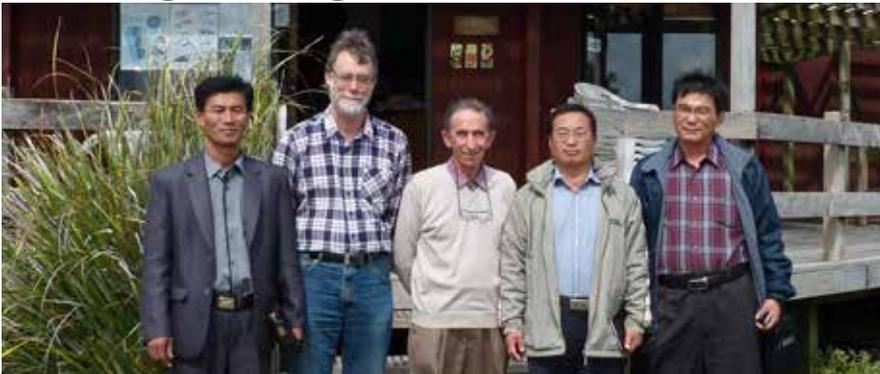
At precisely 45 minutes, proceedings are drawn to a close and the College of Deans file out to consider their decision. Shortly after they reappear and the Rector announces that a PhD will hereby be conferred.

Theunis then delivers a short but moving address complimenting Dan and outlining the extraordinary amount of effort involved in completing this thesis. Rock Sandpipers may have one of the most restricted annual distributions of any shorebird species but Upper Cook Inlet is the coldest site in the world regularly hosting nonbreeding shorebirds.

The conditions make winter field work impractical. So, in addition to working on their Pribilof breeding grounds, a small captive population of Rock Sandpipers was established in the Netherlands, bringing with it fiendishly complex logistical and paperwork requirements.

The outcome is another intriguing addition to shorebird knowledge. And for me the occasion is the latest in a long line of extraordinary experiences to which Miranda has led me. 

Strengthening ties with North Korea



In 2007 New Zealand's Minister of Foreign Affairs visited North Korea and suggested cooperation over migratory birds and scholarships for Korean students to study here. The election of a National government saw work on the scholarships stop but Waikato Institute of Technology nevertheless signed an agreement with Kim Hyong Jik University of Education which specialises in training university lecturers. Philanthropist Gareth Morgan agreed to provide funding and earlier this year three students arrived for a two month course. In view of the link between the Pukorokoro Miranda Naturalists' Trust and North Korea the students recently visited the Shorebird Centre. They were fascinated by the migratory birds and enthused about the four year research programme which will hopefully see a New Zealand team visit North Korea next May. From left: Kim Mun Chol, senior lecturer at KHJ University, Keith Woodley, Peter Wilson, secretary of NZ DPRK Society, Baek Kwang Sok of Korea NZ Friendship Society and Yu sun Chol, lecturer at KHJ University. Peter Wilson

Miranda district may also change its name to Pukorokoro Miranda

The lead given by the Trust in changing its name to Pukorokoro Miranda Naturalists' Trust may now be followed by the whole district, writes **Jim Eagles**

The NZ Geographic Board has issued a proposal to change the name of the locality now known as “Miranda” to “Pukorokoro/Miranda”.

The board is also proposing to change the names of a number of features in the area, including calling the hot springs ‘Pukorokoro Hot Springs’ and a nearby hill ‘Pukorokoro Hill’.

This follows an approach to the geographic board from Ngati Paoa which made the restoration of the name of Pukorokoro a significant part of its Treaty of Waitangi settlement claim.

The proposal, gazetted on 28 August, is now open for submissions which must be made to the board by 28 November.

News of the proposed name change caused some consternation in the district where it seems to have been leaked before the official announcement. Several locals turned up at a community meeting in Mangatangi thinking the change was a fait accompli.

To clarify the situation a public meeting was organised in the Shorebird Centre and around 75 locals turned up seeking information.

Don Swales, who chaired the meeting, said it was not intended to pass any resolutions, merely to pass on information and answer questions. ‘If you want to make a submission, if you want to object to or support the change, that’s up to you.’

To make that easier, draft submission forms, either supporting or opposing the change, were made available after the meeting.

Local amateur historian Ian Barnes then outlined history of the names Pukorokoro and Miranda.

Pukorokoro, he said, was the name of a Maori kainga established long ago and it was “recorded as an important place on the route between the Hauraki Gulf and the Waikato River.”

The name Miranda, taken from the warship *HMS Miranda*, arrived when it was given to the redoubt built in 1863 in the course of the Land Wars.

By searching old newspaper records



SIGNS OF CHANGE: An information board near the start of the path to the hides records the history of Pukorokoro.

he had found that over a long period, between 1860 and 1880, the use of the name Pukorokoro had gradually reduced and that of Miranda became more common.

This was partly because the village of Pukorokoro was declining but also as a result of the local post and telegraph being named Miranda, probably because it was situated just below the redoubt.

Ngati Paoa negotiator Morehu Wilson told the meeting it was no surprise that the importance of Pukorokoro had declined because after the village was attacked by *HMS Miranda*, with women and children killed, the inhabitants had fled to the swamps south of Waitakaruru where they lived in great poverty.

As part of the iwi’s treaty settlement, he said, the Crown had undertaken to specifically apologise for that attack, for the loss of life and for the subsequent confiscation of land.

It was very important to Ngati Paoa that as part of the process of settlement the name of Pukorokoro should be restored to the district. But, he said, the iwi was happy that the geographic board had taken a balanced approach in proposing to keep both names, giv-

ing them equal mana, so locals would then be free to use whichever name they wished.

Speaking directly to the locals present he said, “I implore you to support this change to restore the name of Pukorokoro to this district.”

On behalf of the Naturalists’ Trust, manager Keith Woodley gave the background to its name change earlier this year, pointing out that while initially there had been several questions in the end it was approved unanimously.

Mayor of Hauraki District, John Tregidga, told the meeting he personally supported the change. But, he emphasised, that would not mean the name Miranda would disappear.

If people wanted to call the area Miranda they could do so. If the owners of a private business like the Miranda Hot Pools wanted to keep the name they had every right to do so. And there were no plans to change road names such as Miranda Back Road.

Details of the proposed name changes and how to make submissions can be found on the Linz website at www.linz.govt.nz/about-linz/news-publications-and-consultations/news-and-notices/consultation-open-for-place-name-proposals-0 



From the chair

Trust members are an inspiration

The sight of members beavering away to clean up the centre, then joining in a delightful potluck dinner, provides huge encouragement amid the overwhelming demands of shorebird conservation, writes **Gillian Vaughan**

The sun was bright and the temperature warm in mid-August this year, and that led to a great turnout for our annual working bee. The Shorebird Centre gleamed by mid-afternoon, with the cobwebs firmly brushed away, corners clean, gutters washed down and the shed cleaned out. The evening was a very well attended potluck dinner, where we didn't quite run out of plates, followed by a great talk from John Stewart on bringing back birds to the Copeland Islands in Northern Ireland.

Possibly because it is a celebration held near the end of winter, more likely because it's a day I spend with large numbers of Trust members, I always find the working bee and potluck dinner inspiring. Working with shorebird conservation can sometimes be somewhat overwhelming. Seeing so many people engaged in ensuring that the Trust continues, involved in the working bee, and maintaining our community at the potluck dinner does give me and other council members heart.

The other event at the Centre recently was the Welcome to the Birds open day. This was also well attended with Adrian Riegen, as the speaker, giving an update on some of the outcomes of this year's trip to Yalu Jiang National Nature Reserve.

I recently met with DOC representatives from Thames as well as Kay Booth, deputy Director Partnerships and Nicola Douglas, manager of Partnerships based in the Hamilton office, we discussed the ways we are working together and have some clear plans about ways to move forward together, both locally, and continuing their support of our work on the flyway.

Earlier in this magazine is mention that Kristelle Wi has decided it is time to move on and is not taking up the role of Shorebird Guide again. It has been clear over the years that Kristelle has been a very valuable member of the Shorebird Centre team, bringing enthusiasm and practicality with her



Kristelle Wi, who is moving on from her role as Shorebird Guide, has made a valuable contribution to the Trust.

at all times. As Kris is staying to run the predator trapping lines this summer members will still see her around, however as she starts the process of moving on I would like to take this opportunity to thank her for her work over the years.

Recent visitors to the Centre will have noticed that Keith Woodley has been hard to track down, he left the country in mid-September and should be back mid-November. There have been a number of key people keeping the Centre running while he has been away, thanks to Maria and her team

of volunteers for your work.

Final thank yous: Alister Harlow for all his work recently (earlier in the magazine is outlined a list of recent grants we have received and these are all a result of Alister's work behind the scenes). David Lawrie for the huge amount of effort he is putting into the Auckland Unitary planning process, making sure that the shorebirds and roost sites of the Manukau Harbour are part of the planning discussions. It appears to be an endless thankless task, so many thanks to him!



Fund to commemorate Eila Lawton

On 23 August, after the working bee and just before the potluck dinner, members of the trust gathered with friends of Eila Lawton for a short memorial service. People spoke of their relationships with Eila and the value she had brought into their lives, she will obviously be missed by many.

A request that council received before the memorial service was that people be given a chance to contribute to a fund in Eila's name. Eila was passionate about environmental education, thus her years spent as course convenor. We are therefore now

receiving donations to the Lawton Fund, these donations will be used to help fund participation in the field course. Exactly how this will occur will depend on the level of donations received, options range from a one-off subsidy for an individual or individuals, to a longer term scholarship arrangement. If you would like to contribute please send donations to the Centre, or call with your credit card details. Please make it clear that your donation is to contribute to the Lawton Fund. We will accept donations until the end of March, at which point we will make a decision about the direction of the Fund. Gillian Vaughan

Keep an eye out for an exotic taste treat

As you walk across the internationally significant chenier plain to the hides don't forget to keep an eye out for the equally important plants growing underfoot. **Ray Buckmaster** begins a series of articles on the intriguing plants you might find.

Fancy something green and salty with a bit of crunch? Something that Europeans have been known to anticipate as eagerly as the arrival of the first asparagus of the season? It is even found on the spring menus of some of our better known restaurants. And Pukorokoro Miranda has it in abundance.

Its common name is Glasswort, though it is also known as Beaded Samphire or, to scientists, as *Sarcocornia quinqueflora*, and it occurs in coastal areas of Australia and New Zealand.

Next time you walk to the new hide cast your eyes to the right and you will find one of the most significant Glasswort meadows in the Waikato.

When a plant's name ends in 'wort' you can be sure that it is, or has been, useful in some way. This is certainly true for Glasswort. If you harvest, dry and burn the plant an alkaline soda ash is produced which was once an essential input in the production of glass.

Today there are more easily obtained sources of alkali but, though they are no longer harvested, Glasswort meadows now face the modern challenges of nutrient enrichment and sea level rise.

Few plants have the ability to survive in the intertidal zone. The external



MOUTHERWATERING: The Glasswort meadow at Pukorokoro with some orange-coloured Sea Blight. Photos / Ray Buckmaster

salt water withdraws water from the cells of most plants and they shrivel and die. Glasswort has a unique ability to obtain water from a saline environment because it retains more salt in its cells than in the surroundings. It is a special trick because this level of internal salt is toxic to other plants.

Holding on to the water obtained in such difficult circumstances is made easier by some neat features. The plant has no leaves from which to lose water. The stems are green, to catch the light, and also swollen, to store water for the dry times.

The extensive Glasswort meadows

have a key role in Miranda's ecology. They usually support quite high numbers of White-faced Herons which turn up to feed on the myriads of crabs.

The crabs themselves make a significant contribution to the intertidal flats. When the Glasswort meadows are inundated by king tides the crabs reproduce. Males and females coordinate the release of large amounts of eggs, and sperm into the water. An insignificant amount of this will get together and contribute to the next generation of crabs. Most will be swept away by the outgoing tide to become food for intertidal invertebrates and, eventually, shore birds.

What the future holds for the Glasswort meadows is a little unclear. Typically their surface waters would be almost totally nutrient free. Today many such meadows are showing accelerated growth due to nutrient enrichment.

If the suggested rise in sea levels does eventuate then the vegetation zones will be moving landward. In areas where the shore has been hardened, by roading or stopbanks, the sea will not be able to reclaim the land and these vegetation zones will be lost.

So enjoy our superb Glasswort meadow while you can. Like our shorebirds, it is beautiful, fascinating and facing an uncertain future. 



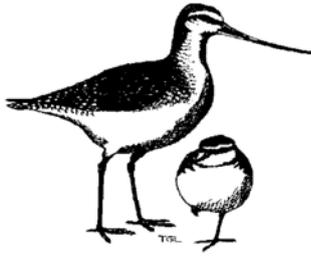
BLOOMING: The pale yellow patches on the stems are stamen and stigma.

GODWIT TIMES

Hi there, Godfrey Godwit here again. My cousins and I are back in NZ for the summer and I must say the weather has been a bit patchy. Here's a little puzzle you can try solving next time we get a rainy day. Try to spot the differences between the two pictures of my old friend Olive Oystercatcher. Have fun.



PUKOROKORO MIRANDA NATURALISTS' TRUST



The Shorebird Centre

283 East Coast Road
RD 3 Pokeno 2473
phone (09) 232 2781
www.miranda-shorebird.org.nz

Shorebird Centre Manager:
Keith Woodley
shorebird@farmside.co.nz
Assistant Manager
Maria Stables-Page
topcats@ihug.co.nz

Pukorokoro Miranda Naturalists' Trust Council

Chair: Gillian Vaughan
gillianv@actrix.co.nz
09 298 2500
Deputy Chair and Banding
Convenor: Adrian Riegen
riegen@xtra.co.nz
09 814 9741
Secretary: Will Perry
home 09 525-2771
emlynp@actrix.co.nz
Treasurer: Charles Gao
charlesgao69@gmail.com
021 2674 919
Council members: David Lawrie
(Immediate Past Chair), Estella
Lee, Wendy Hare, Emma
Pearson, Bruce Postill, Trudy
Lane, Ann and Ray Buckmaster

Pukorokoro Miranda News

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
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 \$45 a year for individuals, \$55 for families and \$60 for those living overseas. Life memberships are \$1300 for those under 50 and \$750 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.

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 Maria Stables-Page 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 ongoing field work and research. This year's is on November 9. 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 and call it your own or feel free to take up any garden maintenance you can see needs doing.

Take the stress out of Christmas shopping

Make present-buying a breeze by making a visit to the Shorebird Centre

Flee the hustle and bustle of the city for the peace of Pukorokoro Miranda, buy from our amazing range of special gifts and then sneak out and watch the birds . . . if you spend more than \$250 we'll even let you use one of our spotting scopes for free

Or, if you really can't find the time to visit the Shorebird Centre, ring 09 2322 781 with your credit card handy, or use our on-line shop at www.shorebird.org.nz



Beaut Bags by Wildside

Featuring kereru, kiwi, kakapo and koru

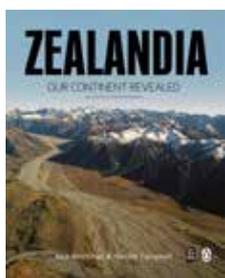
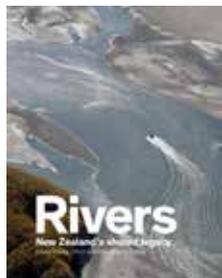
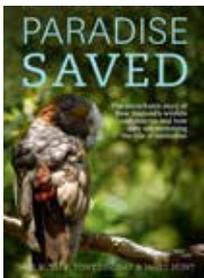
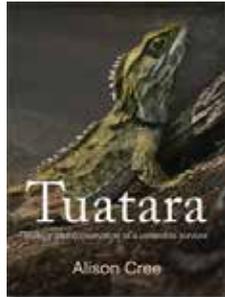
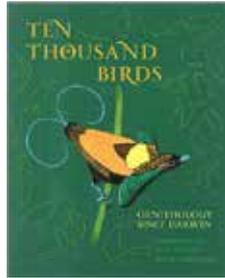
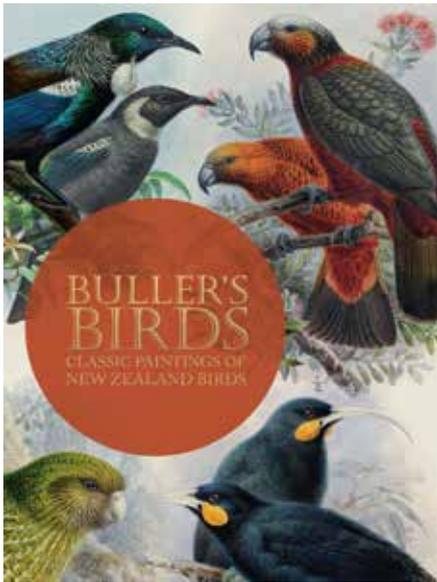
Open out to 460mm x 400mm

Only \$9.90

We have a range of great unisex and women's tees (\$24.90) and women's singlets (\$20.90) including designs featuring our own wrybills, godwits and stilts



Year of the Godwit pens: \$2.50 each or three for \$6



Sticky Notes to remember by Wildlife Photography of the Year.

Three sizes each showing a different award-winning picture. \$16.90 a pack



The Shorebird Centre is widely acknowledged as having the best collection of bird books in the country. Recent arrivals include a new edition of the glorious bird paintings from *Buller's Birds* (\$59.90), *Ten Thousand Birds: ornithology since Darwin* (\$92.90), *Paradise Saved: the remarkable story of NZ's wildlife sanctuaries and how they are stemming the tide of extinction* (\$54.90), *Tuatara* (\$89.90) and *Zealandia: our continent revealed* (\$59.90).



Check out our terrific range of label pins which now includes, by popular request, the unique wrybill, the gannet and the Caspian tern. \$7.90 each