

Pukorokoro Miranda News

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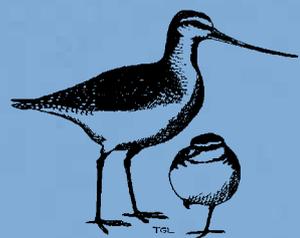
China to protect Red Knot roosting sites

Surveying waders in North Korea

Unusual sighting on the stilt ponds

Exhibition of shorebird art

Photo competition winners





ARTFUL: Keith Woodley works on a painting for his exhibition. He hopes to have at least a dozen on show and available for sale.

Photo / Jim Eagles

Miranda Snippets

Keith's shorebird art to go on display

Keith Woodley's paintings of shorebirds will be on display later this year at an exhibition in the newly opened Miranda Farm Gallery.

The gallery is in a building adjacent to the old cheese factory – now a pleasant cafe – on the Miranda Organic Orchard at 1107 Miranda Rd.

Annie Wilson, who runs the orchard with partner Sean, opened the gallery in May with a Ralph Hotere Retrospective. This featured drawings, paintings and silk from three private collections including several owned by Annie. Several of the works are, in fact, dedicated by Hotere 'to Annabelle'.

That was followed by an exhibition, entitled Chroma Zones, featuring prints by Coromandel artist Michael Smithers.

At the moment the gallery is on winter hours which means it is open at weekends and will feature a range of artworks including some of Clovis Viscoe's amazing giant moth sculptures.

When summer comes Annie has big plans for the gallery but the details aren't quite finalised yet. Keith's exhibition will open on 4 November, Fatu Feu'u 'sometime after that and then, hopefully, a sculpture exhibition in the Summer months.'

You can find out more about the gallery and its exhibitions at www.sculptureatmiranda.com

Writing fantasy

Assistant manager Maria Stables Page continues to expand her literary career.

Maria now has three novels and two adventure fantasies, written under her nom-de-plume of Lily Ennis, published as e-books and for sale on Amazon and a fourth novel is nearing completion.

In the past Amazon books had to be read on a Kindle e-reader but Maria advises that it is now possible to download a free Kindle App so 'You



NEW GALLERY: Annie Wilson admires one of the Ralph Hotere works on display at the opening exhibition in her new Miranda Farm Gallery.

Photo / Jim Eagles

Cover: Simon Fordham's picture of a Bar-tailed Godwit and Red Knot was judged the overall best entry in our 40th birthday photo competition. Full results are on pages 16-17.

can now read my books even if you don't have a kindle.'

In addition, Amazon is in the throes of printing paper copies of the books 'so you will be able to send away for them, and oh yeah, I can sign them for you.'

Growing in popularity

Our Facebook page is soaring in popularity. When Ray and Ann Buckmaster took it over earlier this year there were 350 likes. Since then, with the help of Gillian Vaughan, David Lawrie and others, it has gained a much wider audience. At last count it was up to 893 likes and rising. Ann says what she finds fascinating is the level of international interest. 'This week we have had interest from Nepal, China, Korea and several European countries.'



Ministerial visit

A few weeks ago Conservation Minister Maggie Barry (at left) attended a public meeting organised by the National Party's Coromandel branch at the Shorebird Centre.

She went out of her way to commend the work of PMNT and expressed disappointment at arriving after dark and being unable to see the birds. Keith Woodley has since written to the Minister supplying a list of dates later in the year with suitable tides. Keith also suggested the visit could be informal, perhaps with her family or friends.

Ngati Paoa

Gillian Vaughan and Jim Eagles joined Bruce McKinlay and Greg van der Lee from DoC for a meeting with the Wharekawa Marae Council to discuss the work that is being done in the Flyway. Ngati Paoa is keen to have an involvement with efforts to protect the migratory birds for which they feel a sense of responsibility.

Sister City

PMNT has received an approach from Dandong City Government (which also covers the Yalu Jiang National Nature Reserve) to host a delegation in November.

The visit is part of a plan by Dan-

Meet the godwit-tracker



Lee Tibbitts (at left), a satellite tracking expert who played a key role in the record-breaking flight from Alaska to the Firth of Thames by our most famous Bar-tailed Godwit E7, is to join PMNT's Year of the Godwit 40th birthday party. This follows the reluctant withdrawal of naturalist and author Scott Weidensaul.

Lee, who has been a wildlife biologist with the US Geological Survey in Alaska since 1998, will arrive in late September and is scheduled to give three lectures: 1 October at Te Papa in Wellington; 4 October at the Shorebird Centre; 7

October at the University of Auckland's Tamaki Campus (further details will be listed on the website as they become available).

Shorebird Centre manager Keith Woodley fondly recalls receiving a notable phone call from Lee almost exactly eight years ago: 'I was standing out on the flats beyond the outer shell bank waiting for a TV3 crew to arrive when the call came. It was Friday afternoon, 7 September 2007, and on the line from Anchorage was Lee Tibbitts: "She is just a few km to the east of North Cape, and on her present track should be in the Firth of Thames by this evening." She was E7, the female godwit that was flying straight into the record books. Sure enough she arrived at the mouth of the Piako a few hours later, touching down for the first time since leaving Alaska eight days and four hours, and 11,580km before.

'The bearer of that news was no less significant in the godwit story. Since satellite tracking of godwits was first attempted in Alaska in 2005, Lee has coordinated the collation of data and the subsequent distribution of email updates to a network of researchers and other interested parties. Thus her name was on all the emails, and as the story developed and the tracking of E7 unfolded, the circulation list grew exponentially. 

What's on at the Shorebird Centre

The Shorebird Centre will be closed from Sunday 23 August to Monday 31 August, inclusive, for the floors to be refurbished.

8 August, Winter Potluck Dinner

9am-1pm Working Bee. High tide at 1.45pm so a break for birdwatching. 6pm Dinner. Adrian Riegen talks about the Chatham Islands.

8-10 September, NZ Dotterel Management Course

Details from the Centre.

4 October, Special Birthday Speaker

10am Lee Tibbitts, from the Alaska Science Centre, talks about the satellite tracking of birds which helped her follow E7's record-breaking flight from Alaska to the Hauraki Gulf. Birdwatching afterwards.

15 November OSNZ Firth of Thames Wader Census

Contact the Centre for details.

29 November, Special Birthday Speaker

11am Theunis Piersma, Dutch wader biologist, returns to New Zealand after 15 years. Birdwatching afterwards.

dong City to develop a closer relationship with Auckland City based around the migratory birds we share.

With that in mind it wants to see the two cities sign a Memorandum of Understanding on waterbird and wetland protection; to discuss cooperation between two parties for waterfowl and wetland protection; and to 'carry out jointly a survey on the wintering waterbird population and shorebird banding in Pukorokoro Miranda region, and share their experiences.'

PMNT contacted the Auckland Council and received tentative support but because the Firth of Thames is outside the council's area it was keen to involve DoC and Waikato Regional Council as well. Approaches have subsequently been made to both and a response is awaited.

Old tripod heads needed

Have you by any chance got an old tripod sitting out in the garage? The trust is keen to get a few tripod heads which can be permanently mounted at the hides so the shore guides only have to carry scopes.

Young birders

If you've got keen young birders in the family – or even if you're an old birder – you might like to take a look at a couple of wonderful new websites aimed at encouraging young people to take up birdwatching.

You'll find the main website, New Zealand Fledglings, at <http://young-birdersnz.wix.com/youngbirdersnz> or there's also an associated Facebook page at www.facebook.com/young-birdersnz.

They are both the work of a small group of youthful birding enthusiasts including PMNT member Michael Burton-Smith, aged 13, who lives in Hamilton.

The Fledgling site was launched on June 15 by Michael and 12-year-old Amber Calman – also known by the nom de plume Young Birder – and, Michael says, 'since then we have had heaps of support from the wider community of New Zealand and are very thankful.'

In particular they have been assisted by 15-year-old Oscar Thomas and 11-year-old George Hobson. All are already passionate birders.



INSPIRING: The opening page of the website produced for young birders and the young birders behind it (from top) Michael Burton-Smith, Amber Calman, George Hobson and Oscar Thomas.

Michael says he got into birding when he was a six-year-old at Knighton Normal School and a teacher taught him about blackbirds. 'Since then I have had an extreme passion and spent hours in search of many species.'

'I am now fairly on the ball with New Zealand species and am studying up to be able to know every English bird by sight and sound without even seeing one first.'

Michael and his father visited the Shorebird Centre earlier this year and he subsequently joined up. With encouragement from Council members Ray and Ann Buckmaster he is now

also a regular at Birds Waikato and recently took part in the Kawhia Harbour survey.

The other founder of the website, Amber, is home-schooled in Tasman, and got into birding when she 'found a Yellowhammer trapped in garden mesh around her vegetable patch.' She did some research on Yellowhammers and has since been hooked.

Their website aims to encourage other young people to share their passion. 'It has been focused on bringing children into the art of birdwatching, and saving the future of birding in New Zealand.'

Chinese website

Also on the subject of websites, the work PMNT is doing to help the shorebirds at Yalu Jiang Nature Reserve now has its own Chinese website.

It is the work of Henry Wang, a former Hong Kong resident and New Zealand citizen who is at present running a successful online business in Beijing.

Henry met Council member Estella Lee when he and his wife Coco first moved to New Zealand and she introduced them to our migratory birds.

Later, when Henry's business interests took the couple to Beijing, Coco became a trustee of the Chinese Conservation Education Trust set up by Estella.

The PMNT team of Adrian Riegen, Keith Woodley and Estella which visited China earlier this year (see report page 15) met Henry in Beijing, he took them out for a steam-boat dinner and became enthused about the work being done.

'I visited Henry again before I flew to Hong Kong,' Estella says. 'I stayed a night in Henry's house and showed him the PowerPoint presentation we presented to the Chinese officials. He was deeply moved.'

Estella left the presentation with Henry and he has now used it as the basis for creating a website which he is planning to expand.

You can see Henry's website at <http://dandongshidi.com>



A CHINESE VOICE: Chinese-New Zealand businessman Henry Wang, who is now based in Beijing, has set up this website to tell locals about the importance of the Yalu Jiang Nature Reserve.

Chair re-elected

Gillian Vaughan has been re-elected for her fifth term as chair of the Pukorokoro Miranda Naturalists' Trust.

At the annual meeting of the trust in May the 56 members who attended re-elected William Perry as secretary and Charles Gao as treasurer.

The existing Council was largely re-elected as well and now comprises: David Lawrie, Adrian Riegen, Gillian Vaughan, Wendy Hare, Estella Lee, Trudy Lane, Ray and Ann Buckmaster, Bruce Postill and (filling a vacancy created when Emma Pearson had to step down due to family commitments) Cynthia Carter.

At the first Council meeting following the AGM Gillian was unanimously chosen to continue as chair.

New council member

The new Council member elected at the AGM, Cynthia Carter, is a Canadian by birth but has lived in New Zealand for about 20 years and, like many before her, was netted by the Shorebird Centre through the annual Miranda Field Course.

Cynthia says she first visited Miranda with 'my dear friend Eila Lawton in 2007. Eila was always full of enthusiasm about nature and all things birdy or ecological, and was also always keen to share her knowledge. Through her I became much more knowledgeable of the unique and fascinating biology surrounding us here in New Zealand.'

Cynthia says it was at Eila's suggestion she attended the field course, where she became 'intrigued by the waders and their migration'. Adding to her fascination was the fact that during one of the course's early morning bird sighting sessions on the stilt ponds E7 was first sighted at Miranda, four months after her famous tracked flight.

'Looking at that small bird in that big flock in the peaceful early morning light intrigued me by the thought of the unknown stories of all the many creatures with whom we share this world. It also reminded me of how very little I know of even the known information.'

While she found the entire field course 'fabulous' Cynthia says she particularly enjoyed the banding, both mist netting and cannon netting. 'These are skills that are not readily available to learn and I have felt privileged to attend banding sessions since then whenever I can.'



NEW COUNCIL MEMBER: Cynthia Carter at Widgery Lake.

Photo / Jim Eagles

The new council member says she is a strong proponent of the power of knowledge and education but adds, 'I must confess that I am not actually educated, or very knowledgeable, of birds or of ecology myself. I expressed this thought on being approached about joining the Council but was assured that it was not a pre-requisite.

'I am very curious to know in what way I can contribute to the already successful formula of the Pukorokoro Miranda Naturalists' Trust, but I am certainly keen to try

to help out.'

Cynthia says she would love to meet up with members and learn about the history and work of the Trust. 'I hope to see you at the Centre or at the hide. If you see me, please come and talk to me and share your knowledge and stories.'

Subscription increase

The annual meeting approved a recommendation from the Council for a \$5 increase in ordinary annual subscriptions. As a result these are

now: Individual \$50, family \$60 and overseas member \$65.

Life memberships were given a pro rata increase and are now \$1500 for those under 50 and \$850 for those over 50. The increase will take effect from the next financial year.

Land purchase

PMNT is seeking \$400,000 to buy the block of land that includes the Robert Findlay Wildlife Reserve from the Lane family.

Gillian Vaughan announced this to the AGM in her chair's report. She said the situation had arisen because a majority of the Lane family wished to dispose of the land and the Trust was its preferred purchaser.

Following negotiations a sale and purchase agreement for \$400,000 had been signed by both parties and fundraising stalwart Alister Harlow was working on applications to a suitable funding bodies.

Former chair Stuart Chambers asked whether, since the land was protected by a Queen Elizabeth II Trust covenant, PMNT needed to own it.

Gillian said it was not essential but it would be simpler if the land was owned by the Trust rather than having to negotiate a lease or some other arrangement with another purchaser.

David Stonex asked what the Trust was planning to do with the 11-ha block of land it already owns on the landward side of the East Coast Rd near the stilt ponds.

In response, Department of Conservation ranger Greg van der Lee, who is closely involved in Fonterra's Living Water partnership with DOC, said the land could fit very nicely into plans to restore wetland habitat in the area.

No toilets

The perennial issue of providing toilets facilities somewhere adjacent to the hides was raised at the AGM by Martin Day.

Gillian Vaughan replied that while the Trust appreciated that toilets would make bird viewing more comfortable for visitors providing them would be difficult. Toilets would create several problems, including attracting freedom campers to the area, would be difficult to maintain and would probably not be permitted by planning authorities anyway.



The Trust is always on the lookout for more volunteers

We need someone to assist with **marketing and advertising** so we can promote ourselves to a wider audience.

Can you help us revamp our **website** into a better link with our members and a more effective shopfront to the wider world.

If you're interested contact Gillian Vaughan at gillian@actrix.co.nz or Keith Woodley at shorebird@farmside.co.nz

Photo / Richard Goodenough of Radax
This picture was a finalist in our photographic competition

Recording nature

Milk money

Fonterra's Living Water programme has offered PMNT a grant of \$19,000 to go towards its work on the East Asian-Australasian Flyway. The money will help to fund visits to China and North Korea to gather information and work with locals to protect shorebird stopover sites.

Living Water's manager, Cerasela Stancu, said the project was focussing on improving habitat and water quality in New Zealand including, in the Miranda area, habitat for shorebirds. But, she noted, those efforts would be rather undermined if migratory shorebirds stopped coming because of problems in Asia.

Wrybill research



Massey University masters student Rachel Withington (at left) has been awarded a Sibson Fund Scholarship of \$1000 for her work studying the Wrybill.

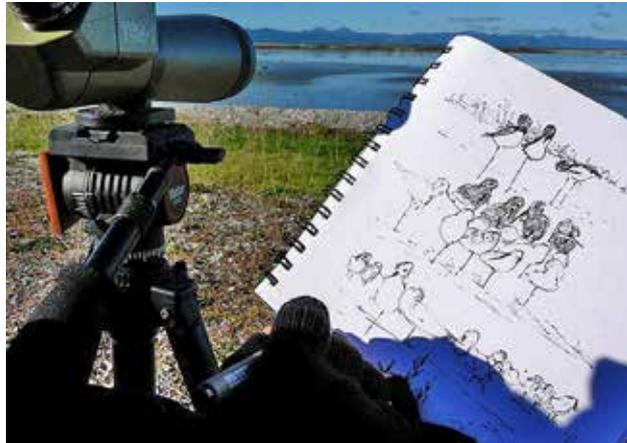
As well as supporting the research financially the Trust also gave practical assistance with members turning out to catch Wrybills so she could take samples.

Rachel, who is in the process of writing a thesis for her Master of Science majoring in Ecology, says she is enormously grateful for the Trust's assistance.

For her degree she is studying the foraging ecology of Wrybills in the Firth of Thames. 'This involved over a month of field work last year and included taking videos of feeding Wrybills and taking sediment and polychaete samples across the mud flat, as well as taking blood, feather and faecal samples from forty Wrybills.'

The project has two main research topics: the first is looking at the factors influencing the distribution of Wrybills across the mudflats and the second is investigating their feeding modes and ascertaining whether they are feeding on biofilm or not.

When Rachel has completed her thesis she will be writing an article for *Pukorokoro Miranda News* outlining her results.



THE BEAUTY OF NATURE: This year's Nature Journaling Course, run at the Shorebird Centre by Sandra Morris, was the most successful yet. Not only was it fully booked, there was a waiting list, the first time that has happened. Next year's course is just under 12 months away so if you're interested it might be wise to make a booking now.

Photos / Jim Eagles,
Sandra Morris



HELLO STRANGER: The Common Greenshank with its slightly upcurved bill.

Photo / Phil Battley

An unusual visitor to the stilt ponds: the Common Greenshank

Participants in last year's Wader ID Course got a marvellous introduction to the thrills of birdwatching when tutor Gillian Vaughan spotted an unusual bird on the stilt ponds: the Common Greenshank. As a result the students were able to participate in the compilation of an Unusual Bird Report to Birds NZ which has been accepted by the Birds NZ Appraisal Committee. **Keith Woodley** tells the story of this most uncommon bird..

Shorebirds and the issues they face have, over the last 10 years, taken me many times to East Asia. Most visits have involved surveys: counting birds and looking for bands and flags.

There is a certain sameness about the places where this is done, be it in China or both Koreas. Invariably there is a seawall, behind which are aquaculture ponds, salt works or rice paddies. Invariably also, there is a familiar sound – the urgent *tew tew tew* of a greenshank flushed into flight. In this Asian coastal environment they are ubiquitous; on the stilt ponds at Pukorokoro Miranda they are exceedingly rare. So the brief appearance of one during the Wader ID Course last November was quite an event.

The Common Greenshank has a broad breeding range from Scotland and Scandinavia across to Kamchatka, and migrates to Africa, south and southeast Asia and Australasia. It is

referred to as an uncommon but annual visitor to New Zealand although sightings have declined in recent years – the Appraisal Committee said 'the frequency of reported sightings has declined to about one every 3-4 years' – and it has also been found in the Chathams, and on the Snares and Macquarie Islands.

The first official record for this country is of a bird purchased in the Dunedin market by Frederick Hutton in 1874, presumably having been shot somewhere in Otago. It was nearly 80 years before the next record, a bird near Gisborne in 1952. Somewhat surprisingly, the bird in November was only the second record for Miranda; the first being in 1993. Clearly 'common' in this regard is relative.

A typical member of the sandpiper family, the greenshank is a long-legged wader with a long slightly upturned bill. Its grey-brown upperparts con-

trast with white underparts which, in breeding plumage, has black streaking on the breast. Its common name reflects its greyish green legs, although they can also be a light yellowish green.

In flight the white pointed wedge extending from upper tail coverts to the upper back contrasting strongly with the darker wings, makes a very distinctive field feature.

It shares this feature with the other bird it could be confused with here in New Zealand. However, the Marsh Sandpiper is smaller, its bill is thinner and more tapered and its yellowish-green legs are proportionately much longer.

According to one description, the greenshank is 'wary, noisy and excitable, [bobbing] its head in alarm, and flushes with ringing calls, often long before other species'.

The greenshank is not, unlike Bar-tailed Godwits, specifically a bird of



UNUSUAL BIRD (top): Wader ID Course participants practice their observational skills while tutor Gillian Vaughan rings her family to tell them about the discovery; (bottom) Gillian compiles the Unusual Bird Report with the help of the team
Photos / Jim Eagles

the intertidal zone. although it can often be found there. It also frequents a variety of inland wetlands, both natural and artificial (such as salt-works), and sheltered coastal habitats of varying salinity. This versatility is reflected in Australia where it is the most widespread of the scolopacidae, being recorded in 39% of the Bird Distribution Atlas squares.

Its foraging behaviour is also a little different to that of a probing sandpiper. Although it is described as finding prey occasionally by touch, it mainly does so by sight, gleaning food from the surface of mud, vegetation or water, more akin to the plover

family than the sandpipers. Prey items include molluscs crustaceans, insects, occasionally fish and frogs.

Its name *Tringa nebularia* apparently derives from a blend of Latin and Norwegian. Described by Norwegian bishop and botanist Johan Ernst Gunnerus in 1767, *nebularia* comes from the Latin *nebula* for mist. The Norwegian common name for Greenshank is Skoddefoll or mist-foal, 'alluding to its misty, marshy habitat and supposed whinnying cries.'

Further reading: *Handbook of Australian, New Zealand and Antarctic Birds Vol III*; www.NZBirdsOnline; *Checklist of the Birds of NZ*. 2010. 

Now in residence at Pukorokoro

Arctic Migrants

Bar-tailed Godwit	165
Red Knot	100
Marsh Sandpiper	1

New Zealand Species

Wrybill	2100
NZ Dotterel	
Banded Dotterel	97
SI Pied Oystercatcher	5000+
Black-billed Gull	
Pied Stilt	
Hybrid Stilt	1
Royal Spoonbill	42
Caspian Tern	18
Bittern	
Shoveler	220
White Heron	1
Banded Rail	



WHERE ARE THE BIRDS? The survey team in action.

Photo / Adrian Riegen

Searching for shorebirds in North Korea

More than 20,000 birds were counted during this year's foray into North Korea by a PMNT team of Adrian Riegen, David Melville and Keith Woodley. **Keith Woodley** reports on a successful start to a programme aimed at finding out where this isolated nation fits into the East Asian-Australasian Flyway puzzle.

The salty coastal tang as we get off the bus and set up the scopes underlines a pleasing moment. We are on an embankment alongside a tidal channel near where it passes through the main seawall, and before us there are shorebirds - mainly Dunlin. Behind us, across a large ditch, rice paddies extend off into the distance.

Yalu Jiang over a week ago was where I last stood behind the scope, after which there came a seven-day hiatus - in Beijing arranging visas for this visit and otherwise marking time before arriving in Pyongyang, the North Korean capital, three nights ago, all time away from our preferred habitat - a coastal location with mudflats and shorebirds.

Along the seawall there are security posts and an eight-strand electric fence, but otherwise we could be anywhere on the Yellow Sea Coast. Here, at Ansok-Li, northwest of Nampo, we commence a shorebird survey, the

first of a series scheduled for different locations in North Korea over the next three years.

The few hundred birds in close proximity are soon pushed off by the tide but our count is underway. As the birds fly off to the north, presumably to settle on a roost somewhere, David is looking south - where several kilometres away a huge smoke of birds are seen settling out of view.

We point them out to our hosts, from the Nature Conservation Union of Korea saying 'we need to get over there, is that possible?' Before long a local is mobilised to ferry us across a small creek three at a time in a dinghy that, at first glance, looks questionable.

Nevertheless we are all soon disembarked and tramping at pace along the paddy embankments. Wood sandpipers and common greenshanks are regularly flushed by our passage, along with a couple of long-toed stints.

We reach a large pond bordered by

reed beds in a corner of the main seawall, where we find over 8000 birds.

They are mainly Great Knot and Dunlin, but there are also 2300 Bar-tailed Godwits. Others include over 120 Sharp-tailed Sandpipers, a few Kentish Plover, Lesser Sandplover, Whimbrel, Back-winged Stilt and, in a first for the three PMNT visits to North Korea since 2009, two Red Knots. There is also a solitary Red-necked Phalarope that arouses considerable interest among the Koreans. Within hours we have located a site that is internationally important for at least two species.

We had arrived at Nampo the night before, after a 90-minute drive from Pyongyang - much of the route along a ten lane wide highway where corrugations and potholes vastly outnumber vehicles.

Our hotel is a seven-story pile on the edge of the city. Over the forecourt looms the ubiquitous double portrait



WHAT DOES IT MEAN? Adrian Riegen discusses the results with (from left) Ju Song I, Kim Song Ho and Pak Ung from the Nature Conservation Union of Korea. Photo / Keith Woodley

of Kim Sung Il and Kim Jong Il.

Our fifth floor room looks over rice paddies to the busy shipping channel into Nampo. On the near bank is a large freighter which is firmly aground, its immobility confirmed by its appearance in Google earth images of the district.

Our quarters are Spartan but comfortable: electricity is available for a few hours in the evening and there is no running water, but this is not a great concern - all three of us have spent time in remote field camps in Alaska.

The route to our second survey site the next day takes us along tree-lined roads, sometimes cobbled, through a hilly landscape where rice paddies occupy most flat land. Preparation of the paddies is more advanced here than in Dandong with many already flooded and planted, forming tight little grids of bright green panels set in grey blue water.

There are also tilled fields, contoured on the lower slopes, salt ponds and compact villages of off-white houses with grey tiled roofs.

Traffic along the roads is mainly pedestrians and cyclists, many of the latter laden with extraordinary loads. The

road turns and threads through a range of low hills and into a small town. Here the narrow road is unpaved, and busy with people, several ox carts and a few trucks laden with salt.

We pass densely packed cottages with enclosed yards. The roofs are uniformly grey tiles with the central gable off-white and slightly upturned at the ends.

Beyond the town there lies a vast network of salt works, a grid of small rectangular ponds extending in all directions. Many of them are paved with tiles, some have water while others are being worked; here and there are small mounds of salt. It is a strangely pleasing geometric pattern.

David's attention is drawn to the system of flying foxes used to remove the processed salt from the area; he has seen it nowhere else. This is one of many areas where we are restricted from taking photographs.

Wonum-Li, the count site, is near the mouth of a small river. Approaching the coast we walk along an embankment towards a substantial looking military observation post. Counting conditions are ideal - it is calm and mild, and there are birds

coming in, but our first duty today, as curious border guards look on, is to be interviewed by an Associated Press cameraman who has accompanied us from the hotel.

Once we can turn attention to the birds before us, 4800 of them - mainly Dunlin, are recorded. As happens elsewhere around the Yellow Sea the tide rockets in, so counting opportunities are brief before everything is pushed off the mud. Some birds appear to fly a long distance and seem to be climbing as they are lost to view to the north: hallmarks of a possible departure, although these birds were remarkably silent.

However we had also seen flocks of birds coming in from the south and settling behind a distant building over the other side of the channel. Our hosts confer with a soldier to get directions, and we set off in the bus in a long loop back towards the town and back out towards the coast.

We walk along pond embankments in search of birds, eventually finding over 4000. Again Dunlin predominate but there are Great Knot, Bar-tailed and Black-tailed Godwits, Lesser Sandplover, Grey Plover (some in full



COUNTRY LIFE: A coastal village in Onchon County, North Korea.

Photo / Keith Woodley

breeding plumage), Red-necked Stint, Sharp-tailed Sandpiper, Turnstone, Sanderling, Kentish Plover, and Terek Sandpiper. In just two days here we have now counted 17,400 shorebirds.

Day three finds us at a site just north of the West Sea Barrage, an enormous 8km structure across the Taedong River designed to irrigate old and newly-reclaimed farmlands.

Entry to it is through the gates of a large sea cucumber processing plant beyond which a new earth road, lined with apple trees, leads to the sea wall. To the south is an enormous pond extending across to the wall beyond which is the barrage. To the north a series of ponds hold small flocks of birds.

Our hosts negotiate access with the border guards and eventually we file down a narrow path and through tiny maize plots – furrowed and recently planted. Setting up scopes in soft tilled soil we are conscious of not trampling plants – nevertheless we do stray and an anxious farmer is soon talking with our hosts.

We count over 3000 birds, again mainly Dunlin with a species list similar to yesterday, although 18 Grey-tailed Tattlers are new to the survey. Red-breasted Mergansers, Red-throated Divers, Great Crested Grebes and Siberian Meadow Bunting are other non wader highlights.

Back at the hotel we have several meetings with Nature Conservation

Union of Korea staff to debrief and plan the work program for next year. We take them through a presentation on counting techniques and the recording of data.

They are interested in starting a bird-banding program, an issue which, as author of the recently updated New Zealand Banding Manual, David is well placed to address. He outlines the complexities of setting up a national bird banding scheme – such as acquiring bands and a suitable contact address to fit on them, other specialist equipment, training banders and the importance of subsequent monitoring.

There is a possibility he may be able to assist with starting a program later this year. Such is the interest and enthusiasm for all of this the meeting goes for nearly four hours.

The next morning attention turns to the work program for next year. The likely place is a section of coast just south of Mundok, the reserve surveyed by the PMNT team in 2009. Given the challenges involved with organising the North Korean expedition this year – such as delays with communications, and organising transport options and visas, we are keen to get as much detail in place for next year as possible.

David has spent the last three days gazing longingly at the tidal flats, desperately keen to get out there and do some benthic monitoring. Learning about shorebird food is one of the key

ways of assessing the importance of a site. But given the sensitive nature of the coastline here, and the tight security, getting out there is not possible this time.

However, we give our hosts a presentation on benthic work, its complexities and why it is so important: the relationship between birds and food, where it is distributed and why one place is good for one species but not another. Extensive work at Farewell Spit provides a useful model. It is all favourably received and we are confident that some access to the tidal flats may well be possible next year.

It is often the case when travelling that your vehicle remains a bubble, detaching you from the landscape and its inhabitants. In North Korea this is accentuated by the presence of minders at all times.

In the countryside west of Pyongyang we see many people, but have direct contact with none of them. They are for the most part pedestrians – and they are everywhere. On no country road do we go long without passing some.

In Pyongyang where the number of vehicles seems to have increased even since last year, pedestrian traffic predominates. Streams of people, usually well dressed in suits, uniforms, or smart casual file down the pavements in scenes strangely reminiscent of LS Lowry paintings of urban industrial



Manchester. Trolley buses are also common, usually bulging with passengers. One thing pleasantly absent from both rural and urban landscapes are advertising hoardings.

Footnote: somewhere in the air traffic control system at Beijing there is someone with either a wry sense of geopolitics, or with a genuine interest in bringing warring people together. I suppose there is also the possibility of coincidence. On arrival from Pyongyang our Air Koryo plane is directed to a gate immediately alongside one where sits a plane from Korean Air: the two Koreas without a DMZ between them. Two gates along there is an Aeroflot plane sitting alongside one bearing the livery of Ukrainian International. Coincidences? 🐦



NOT SO MYSTERIOUS (clockwise from top left): Bar-tailed Godwits at Wonum-Li; village in Onchon County; mudflats at West Sea Barrage, Nampo; saltworks near Nampo; the team (from left) Kim Song Ho, David Melville, Ju Song I, unknown, Keith Woodley, Adrian Riegen and Pak Sung Il.

Photos / Keith Woodley and Adrian Riegen



More protection for stopover sites

There is cautious optimism that recent developments in China signal good news for our migratory birds. The stories on these two pages report an announcement that the key Red Knot refuelling area in Bohai Bay will be given protection and news that the billionaire owner of the Dandong Port is restoring a huge block of adjacent wetlands. But the latest visit to Yalu Jiang produced a mix of good and bad news.

The Chinese authorities have taken an important step towards protecting the crucial Red Knot stopover area on the Luannan Coast of Bohai Bay by giving 'provincial-level protection' to 12 wetland areas including one in the important Caofeidan Nanpu Wetlands.

The news was contained in a statement issued by the Chinese Embassy following a meeting between Ambassador Wang Lutong and Department of Conservation Director-General Lou Sanson.

It was cautiously welcomed by PMNT chair Gillian Vaughan as 'good news' but she emphasised that further details would be needed to clarify just what it would mean for the birds.

The embassy statement said that during the meeting 'the two parties exchanged views on environmental protection and the protection of migratory birds. . . Ambassador Wang noted that the Chinese government attached great importance to international cooperation on protecting migratory birds.'

The statement then added, 'The Hebei Provincial Government recently announced the first batch of 12 wetlands to be provided provincial-level protection, which included a migration recovery point for Red Knots located in the Caofeidian Nanpu Wetlands.'

The embassy explained that the wetlands occupy an area of 94.19ha making them a significant part of Hebei Province..

The statement said Director-General Sanson 'appreciated the efforts China had made towards protecting migratory birds and wetlands and was pleased to see the progress achieved' and 'hoped that the two countries could further strengthen cooperation on the protection of migratory birds and on cultural matters in general.'

Adrian Riegen, who visited China earlier this year as part of the Trust's continuing efforts to protect our migratory birds, said the announcement was 'a big step in the right direction'.

The Trust, he said, had been work-

ing for more than 20 years to raise awareness of the needs of waders both in New Zealand and in East Asia, particularly China, with mixed results.

'The challenges to protect waders in China are complex, as coastal areas are under huge pressure from industrial development and increased demand for food from the sea, mudflats and adjacent aquaculture ponds.

'However, this is very positive news and a big step in the right direction towards safeguarding the future of the Red Knots and other waders, but I feel

there is a long way to go until sites like the Luannan coast are truly secure for these birds.

'We have seen all too often that activities, sometimes illegal, continue to take place and even for sites like Yalu Jiang, which is reasonably secure, to be subjected to increased pollution, which can have a serious but largely unseen effect on the health of the mudflats and thus their ability to support the birds using them. I won't be popping the champagne corks just yet but may put a bottle or two on ice.'

Birds get a helping hand from secretive billionaire

The secretive billionaire who owns the Dandong Port Company, which adjoins the Yalu Jiang Nature Reserve, has spent huge sums restoring 20,000ha of the area's wetlands, mainly former reed beds. The main aim appears to be creation of habitat for waterfowl, but some of our godwits may also benefit.

The Dandong wetlands, which cover 100,000ha in total, are among the largest in China and home to hundreds of types of plants, more than 50 bird species, 88 types of fish, and 54 types of small mammal as well as providing a stopover site for migratory birds.

Since the start of China's economic miracle the the wetlands have been under seriously pressure. But an article in the American business magazine *Fortune* describes how billionaire Wang Wenliang, who comes from Dandong, has spent US\$8 million over five years buying out fish and shrimp farms in a 20,000ha block. Now, according to a senior member of his company, he is investing a further US\$2 million a year restoring the wetlands.

Little is known about Wang, who maintains a very low profile, and *Fortune* says it is typical of him that the restored wetlands are closed to the

public and largely unknown to local conservation groups. He apparently worked as a local government economic advisor before starting his own construction company in 1998 and he is now worth an estimated \$2 billion.

In recent years he has made several big donations to international organisations like the Clinton Foundation and Harvard University. The Dandong wetlands are one of the few areas under protection by private business in China and the magazine notes that 'Philanthropy remains rare in China, and conservation projects are even rarer.'

All of this, *Fortune* says, raises some important questions: 'What are his motivations? Who is he trying to influence?' In search of answers, the magazine talked with environmentalist Ming Sung, head of the Clean Air Task Force Asia Pacific region, who recently visited the wetlands and afterwards had dinner with Wang.

Sung told them he asked Wang sceptically, 'What's in it for you?' and the billionaire 'said he wanted to do good for his future generations.' Wang then went on to say he wasn't interested in opening the area to floods of tourists or commerce. 'He said he just wanted to protect his hometown.'



CONFLICT ZONE: Phil Battley's beautiful photo of a typical scene at Yalu Jiang was one of the finalists in our photo competition.

The ever-changing face of Yalu Jiang

Yalu Jiang may be a familiar place to us by now, but with each visit there are always changes. Development around the eastern end of the reserve has continued since last year, but there are indications that capacity has grown well ahead of demand. Large swathes of new industrial facilities stand empty, while work on numerous high-rise apartment blocks looks to be stalled.

Meanwhile towards the western end of the reserve, in the area we know as Site 12, there have been enormous changes of a different kind with large areas of former reed beds now flooded to create waterfowl habitat (see the adjacent story).

As was the case last year we were unable to complete a full survey of the reserve. While we did see big flocks of 25-30,000 birds the overall impression is we are seeing fewer than in 2004. For the last two years students from Shanghai's Fudan University have

been monitoring benthic species in the mudflats of Yalu Jiang, and their initial results are disturbing. Birds have been observed foraging for up to 5 minutes without appearing to find anything. A few Great Knots being tracked by radio tags left at least two weeks earlier than last year. With the study yet to be completed and the data analysed, it is too early to draw conclusions about what may be happening. Nevertheless there are strong suspicions that changing aquaculture practices may be negatively impacting the tidal flats. Pollution from sea cucumber production, which has expanded dramatically, may be part of the problem.

Commitments to other events were a major reason we could not complete the shorebird survey. One was a Workshop on Wetland and Waterbird Conservation in the Yellow Sea. It was attended by representatives of other wetland reserves around China and,

in a first, by colleagues from the USGS in Alaska, Bob Gill, Lee Tibbitts and Dan Ruthrauff. For them it was an opportunity to see the places where their godwits hang out when in China; for the Chinese it was a chance to hear about the godwit breeding grounds.

A well-attended Bird Festival was the other major distraction. Each year the numbers attending keep growing. This is a very pleasing development compared with 10 years ago when there was little public awareness of the reserve. It does, however, present reserve officials with the challenge of managing the increased human presence at the very times birds need secure roosting areas. At a productive meeting with Pan Shuang, Vice Mayor of Dandong, we discussed the need for securing protected high tide roosts on the reserve. An area near Site 3, which has some of the larger concentrations of birds and is close to the new tourist centre, offers exciting possibilities for the creation of artificial roosts which could be a classic win-win: for the birds and for the people wanting to see them.

In Beijing we met with the New Zealand ambassador John McKinnon and briefed him on our involvement with Yalu Jiang. We also discussed the outcome of our meeting with Ambassador Wang Lutong at Pukorokoro Miranda in March, and his interest in the Red Knot staging site on the Luannan Coast.



GLOBAL REACH: Delegates came from Alaska and New Zealand for the conservation workshop in Dandong. Photo / Wang Xiaofei

Keith Woodley

40th birthday photo competition winners

There was an excellent response to PMNT's 40th Birthday Photographic Competition with a total of 150 wonderful photos of our birds and their coastal habitat.

The overall winner, as judged by

Bruce Shanks, was Simon Fordham's remarkable picture of a Bar-tailed Godwit and Red Knot flying together (which appears on the cover).

In the category for godwit photos from anywhere, Phil Battley took

the top two places. The winner (opposite page, top) was described by the judge as, 'A lovely action shot, showing feeding technique, feather detail, selective focus, yet able to compare breeding plumage in the same photo.' Phil's second-placed photo was, 'Another action shot, showing interplay between species. The depth of field covering the subject matter is good, yet the background has been subdued by selective focus.'

Mandy Hague's came third with, 'A good flight shot, showing feather patterning, good choice of shutter speed to freeze the detail, the shadow acts as a balance point to the image and creates an extra sense of space.'

Simon Fordham's overall winner was also judged the best photo taken at Miranda and the best in the Miranda Fauna category. Bruce said it, 'Shows a good comparison in size and flight of Bar-tailed Godwit and Knot in partial breeding colours.'

Gary Speer's photo of Royal Spoonbills in action (opposite page, bottom left) offered extra interest because 'Although the alighting bird is exhibiting yellow adult spot above eye, it still has the juvenile black wing tips.'

John Woods' picture of a Curlew Sandpiper (bottom right) came third although the judge said 'a crop from top and left would place the bird on a stronger position within the frame.'

In the Miranda Landscape section Gary Speer came first and second. His winning entry (top left) was chosen by the judge for 'Showing the rich mud deposits that the birds come to feed from.' The second-placed effort was, 'An interesting sunrise, with strong lead in and interesting textures.'

Ray Buckmaster was third with a shot of Widgery Lake (below).







From the chair

Education holds the key

The Pukorokoro Miranda Naturalists' Trust's commitments continue to grow, with education and the internet playing increasingly important roles in the work of protecting the birds longterm, writes **Gillian Vaughan**

The godwits' departure usually changes the pace at the shorebird centre. Visitor numbers drop and the sense of urgency usually goes with them. Not this year. The on-going excitement of the Year of the Godwit and the return of our team from China and North Korea has kept the energy levels up and the momentum has kept going into July which is when we start preparing for the Arctic migrants' return.

The big news is the recent receipt of two grants. One grant for \$19,000 from the Living Water DoC-Fonterra collaboration will support our work overseas. A portion has helped fund the Trust's work in North Korea this year, supplementing the funding we had received from the East Asian Australasian Partnership. It also puts us in a position to commit to next year's work. This funding of our overseas work is welcome, particularly after council's recent decision that for our overseas work to be really effective we need to be able to fund those trips, one way or another, on an on-going basis.

As that indicates, one of the continuing challenges for the Trust is going to be making sure that any engagement that we commit to is sustainable. The projects we are involved in are long term. As well as working in the flyway to safeguard stopover sites in Asia we are planning work to enhance the coastal strip here at home, we are engaged with visitors and we are now adding a wider education role. The continuing growth of responsibilities is hugely exciting but it will also be a continuing challenge.

That leads into the other funding we have recently received, a grant of \$44,000 from the Dinah Francis Gavin Bequest, an estate administered by DoC. This will fund an update of our education kit, hiring a part time educator to trial new education initiatives for a year and other education materials. The effort to make this work will be a major focus for Keith and council over the next few months.

A primary school educational programme has been in existence for some



LOOKING AHEAD: Education holds the key to the future of conservation in Yalu Jiang as well as Pukorokoro Miranda. Photo / Keith Woodley

time. Currently we have an educational consultant, Robyn Irving of the University of Waikato, who is upgrading this resource. We hope that it will be completed and available to schools before year's end. It will be a diverse resource and will allow teachers to plan for a range of educational outcomes. It is built around our two poster bird species, the Bar-tailed Godwit and the Wrybill. Within, there are suggestions for pre and post visit learning activities. The learning experience, both at the Centre and the hide is also being enhanced.

This is an area with huge potential. Tiritiri Matangi, which has been offering advice, has a well-developed schools programme which is growing strongly. In May this year, for instance, 957 students, teachers and parents visited the Island under the programme. By comparison numbers in May 2014 were 461, in May 2013 there were 632 and in May 2012 305. We are never likely to have that many students on a regular basis but it does indicate the huge appetite schools have for this sort of programme and the massive opportunity it offers to get our message across to the next generation of conservationists.

The Year of the Godwit has un-

doubtedly raised our profile and as part of efforts to keep that momentum going we are also planning an upgrade of our website. While many of us may remain more comfortable in the world of printed matter, radio and television, there is no doubt that increasing numbers of people get their information, do their shopping and communicate with each other via the web. An example of this is the story in this issue of the magazine about the group of young birders – including one with a strong Pukorokoro Miranda connection – who have set up their own website specifically for young birders.

We need to be part of that. If you have skills on the web and would be willing to help we'd love to hear from you.

In the wider environment the Trust remains involved in the Seachange plan, planning for the development of the Hauraki Gulf. Keith has been involved to ensure that the Trust is kept up-to-date with any developments around aquaculture. Forest and Bird are continuing to work with the Auckland Unitary Plan. A focus is to ensure the harbours are categorised correctly to ensure future protection and members of the Trust have been helping with this. 

Trust sets example for others to follow

The two Chinese sites where PMNT has been active – Yalu Jiang Nature Reserve and the Luannan Coast – were among the five key areas of the Yellow Sea identified at the eighth annual meeting of the East Asian-Australasian Flyway Partnership in Kushiro, Japan, reports the Trust’s delegate, **David Lawrie**.

The eighth annual meeting represented 21 years since the partnership was formed at a gathering, also held in Kushiro, at which Adrian Riegen was the sole representative from New Zealand. It now has 34 partners, four of which were welcomed to their first meeting. Nine new sites were also added to the flyway site network.

The partnership is currently chaired by Professor Lei Guangchun from China. There were a number of changes to the partnership’s working groups and task forces and several of these affect New Zealand. The Yellow Sea task force is now chaired by Bruce McKinlay from our Department of Conservation.

The shorebird working group is now chaired by Dr Rick Lanctot from USA and I am a member of this working group on behalf of the PMNT.

There is also a communication, education, participation and awareness working group which is now chaired by Dr Sandra Hails from the Ramsar secretariat. As PMNT representative I have been appointed to this group, too, in recognition of the work that is undertaken at our Shorebird Centre.

It should be noted that PMNT received numerous mentions because of our work in China and North Korea and also the publicity around our 40th anniversary. It is clear from the meeting that PMNT, while by far the smallest organisation, is very active within the flyway.

The following are the key recommendations that are likely to influence the work that PMNT does:

- Monitoring of flyway network sites - A template was prepared which will be circulated shortly for further comments. This mainly relates to the work of government partners but as the Trust is a key participant in the management of the Firth of Thames flyway site I am sure that we will be involved in this process.

- Formation of an Eastern Curlew task force - This is mainly an issue that was raised by the Australian delegates because of the 67% drop



ALL ALONE: David Lawrie gets a promise of support from the Australian delegate after bemoaning the fact that he was PMNT’s sole delegate.

in population of this species over the past 20 years. Very few curlews now reach New Zealand and the aim of this task force is to prepare a plan of action to try to determine the causes of the decline and look at ways of reversing the trend.

- Study of hunting and illegal killing of migratory water birds - The impacts of harvesting of migratory birds along the flyway are not well understood. The intention is to try to make an informed assessment of the amount of harvest that takes place along the flyway so that the effects on populations can be further assessed.

- Yellow Sea task force - During a joint meeting of the Yellow Sea task force and the shorebird work-

ing group, five key sites around the Yellow Sea were identified, including Yalu Jiang National Nature Reserve and the Luannan Coast. These are both areas where the Trust is active. It was noted the Trust is also undertaking shorebird surveys along the west coast of North Korea and this work received support.

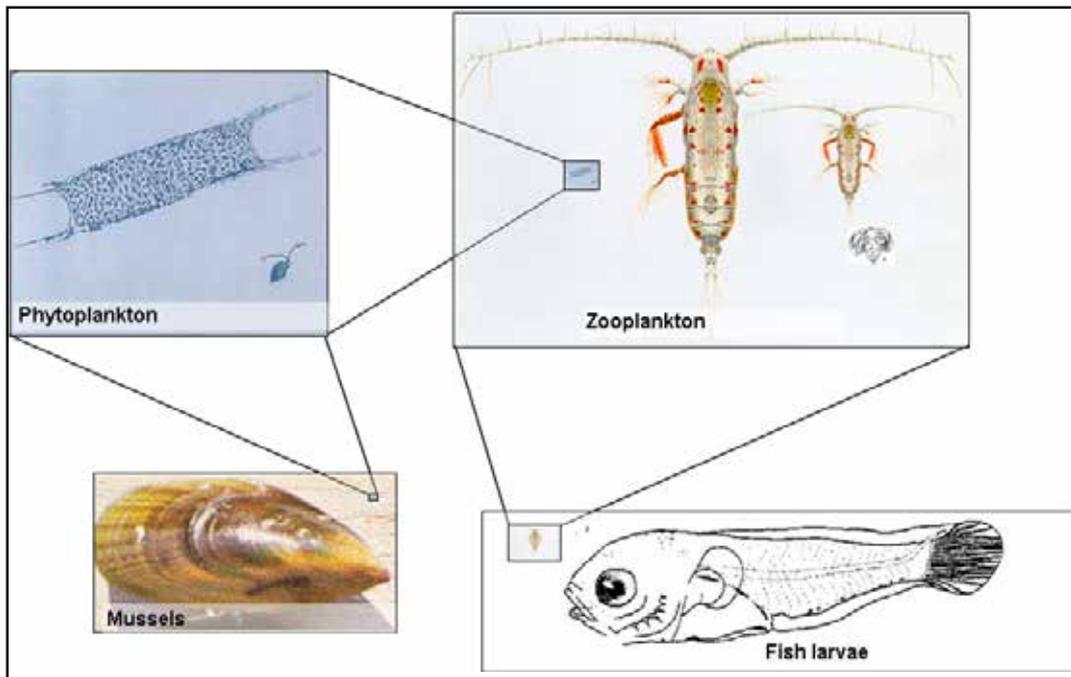
- Communication working group - One of the major activities this year is our Year of the Godwit promotion which forms part of the 40th anniversary celebrations of PMNT. This was quoted as an example of how other partners can develop activities around a theme to raise awareness of shorebirds in their own countries.

Overall, I believe that members of PMNT can be justifiably proud of the activities which the Trust has undertaken and which are being flagged as great examples for other partners in the flyway to follow. The key for us is to find ways of continuing the work which is becoming increasingly difficult for volunteers.

During the meeting a day was set aside for a field trip to view Red Crowned Cranes, Stellers’ Sea Eagles and White-tailed Eagles. It had snowed heavily during the previous few days making access difficult. However, the cranes were active in the snow and were a fine sight. 



UP THE POLE: A Steller’s Sea Eagle poses for delegates in Kushiro.



DRIVING FORCE: This food chain drawn up by NIWA scientist John Zeldis shows how phytoplankton drives productivity in the Hauraki Gulf including aquaculture and fisheries.

The unseen powerhouse of the Gulf

The most important piece of in the food chain of the Firth of Thames is not the Bar-tailed Godwit, the snapper or the cockles but millions of phytoplankton so small we can't see them, writes **Ray Buckmaster**.

'Sometimes what you cannot see is important' At first glance this is a provocative, if not nonsensical statement. Let's compound this by adding 'what you can't see, because it just isn't there, is also important'. As an example, should you park your car and return to find it gone, well, that's important.

Of course that is just playing with words. However, it is an approach that can provide insight into our environment. Walking in the bush, for instance, as well as enjoying what you do see, you might also notice the absence on the forest floor of seedlings from some species of canopy trees, or the lack of mature timber trees or, using another sense, the dearth of bird song. These observations are clues to the past and present status of the bush.

Moving to the coast we can examine the chenier plains in a similar manner. Of the 300-plus plant species that live here only one is a fern. The reason for that can be found in the reproductive biology of ferns. The ferns that we see are quite well adapted to living in most circumstances. However the spores of ferns produce a sexual stage that few of us notice. It is a male gamete which, as with that produced by most mammals, must swim to its destination. For this to happen it needs a shaded, moist location, such as occurs frequently in the bush, but



RESEARCH: NIWA scientists gather data about the state of the Firth of Thames.

is not common on the cheniers, where the tiny gametes are likely to shrivel in the sunshine.

Our coastal fringe and inter-tidal zones also lack plants common in other estuarine situations. Jointed Rush/Oioi is the common estuarine fringe plant and Eelgrass/Rimurehia provides for many species on the inter-tidal flats. Oioi is common in the Centre grounds but not elsewhere. You would need to go north to the Auckland estuaries or Coromandel Harbour to find Eelgrass.

Again the environment is the determining factor. Both these species have limited tolerance to strong wave action. But the Firth is more sea-like than estuarine. Its wave action is sufficient to rework the inter-tidal flats and coastal fringe preventing the establishment of either species.

We have reached the sea. What we

cannot see here is the most significant biological aspect of the Firth. This time it does actually exist and in incredible numbers. Visible only by microscope it is the major energy source for life in the Firth. The tiny single-celled algae, collectively known as phytoplankton, are at the base of a complex food web. Zooplankton, marine worms, shellfish, and birds of shore and sea are dependent on their productivity.

Nutrient levels determine plant productivity, whether in the sea or a paddock, and the most significant in both the Firth and the Hauraki Plains are soluble nitrogen compounds. The Hauraki Plains rivers, with only one fifth the flow of the mighty Waikato, carry half of its nutrient content into the Firth. This, inevitably, impacts on the phytoplankton.

Where does the nutrient come

from? The Parliamentary Commissioner for the Environment recently released an updated report on *Land Use Change and Nutrient Pollution*. In the Waikato, which includes the Hauraki Plains in its wider catchment, between 2008 and 2012 some 28,400 hectares of sheep/beef and forestry land was converted to dairy. Two thirds of the Plains are now involved in dairying. Dairy conversions, use of supplementary feed and a high production farming approach are drivers of rising nitrogen compound levels in surface waters. The Hauraki Gulf Forum in its 2014 report on *The State of the Gulf* also revealed a worrying trend of deteriorating water quality in the Gulf itself.

The dairy community is aware of its impact on the larger environment and is actively making changes to farming practices. It is also encouraging that the dairy cooperative Fonterra has launched its Living Water initiative to improve water quality in the Firth and the rivers and streams that run into it.

Increasing phytoplankton productivity due to rising nutrient levels over the years is resulting in measurable changes. North of the Shorebird Centre a new trend is becoming apparent. In late summer into autumn falling dissolved oxygen levels are being noted. The decomposition of phytoplankton is using up oxygen faster than it can be replaced. The carbon dioxide released by this decay is also increasing the acidity level of the Firth. The consequences of this are unclear but, at some point, it could impact on the ability of molluscs such as the Cocker, to form their shells.

On the positive side a spatial planning exercise for the Hauraki Gulf is underway. This involves many stakeholders including the EDS and PMNT. Later this year its *Sea Change: Tai Timu Spatial Plan* will be released.

If it results in measures to reverse the nutrient enrichment of the Firth it will be very welcome. Wetlands like the Firth are by nature low nutrient environments. Organisms in the mud convert nitrogenous compounds to nitrogen gas, which leaves the ecosystem and joins the atmosphere. The Firth can heal itself if nutrient input levels fall.

Certainly, those things that we cannot see, planktonic organisms, dissolved gases and nutrient molecules will play significant roles in the future of the Firth. 



DIG THIS (above and below): Pupils from Kaiua School and Ecoquest students join the planting. Photos / Jim Eagles

Replanting the river banks

The campaign to improve habitat and water quality around the Firth of Thames took a step forward with the planting of 1300 plants near the mouth of Rangipo Creek at Rangipo.

An impressive array of community groups joined forces to start the process of creating a filtering band of trees along watercourses running into the Firth of Thames.

The plants were paid for by Waikato Regional Council and came from Te Whangai Trust's nursery while a few more were donated by the Auckland Botanical Gardens. Fonterra's RD1 store at Ngatea provided a barbecue, sausages and soft drinks while its Living Water programme covered any expenses.

The actual planting involved all the pupils of Kaiua School, 15 EcoQuest students newly arrived from North America, rangers from DOC and Auckland Regional Parks, a couple of local dairy farmers and representatives of Fonterra, Ngati Paoa, PMNT in the form of editor Jim Eagles and Council member Greg van der Lee . . . and even Mark from Traffic Management NZ grabbed a shovel when he wasn't needed to supervise traffic movements on and off the site.

Altogether 87 people took part and had a huge amount of fun digging holes and planting the trees with added entertainment provided by a couple of students slipping into the creek and a couple of youngsters attempting to eat worms.

The planting is the latest step in a longterm plan to restore 4.7ha



of wetland at Rangipo purchased by DOC in 2012. Since then the area has been fenced, a weed control programme commenced, initial planting carried out and a management plan developed by EcoQuest with help from DOC.

Further planting is planned over the next three years including, when the existing trees and shrubs have grown big enough, the endangered native mistletoe.

Ria Brejaart, EcoQuest's academic director, said the fact that the site was highly visible from East Coast Rd made it 'a small showpiece for what restoration and wetland management can achieve.' 

GODWIT TIMES

Hi everyone. It's Godfrey Godwit here again. Did you miss me?

This week we're going to be talking about the Eastern Curlew. I'd like to introduce you to one of them, my friend Ivan (at right), who came to visit us at Pukorokoro Miranda this summer but whose main home is at Kamchatka. In case you don't know, Kamchatka is a peninsula that sticks out the bottom of eastern Russia.

Here in New Zealand, we have never seen a lot of Eastern Curlews and numbers seem to be getting lower each year. Australia has always been a more popular overwintering place for Ivan's relatives but surveys suggest numbers have declined there too.

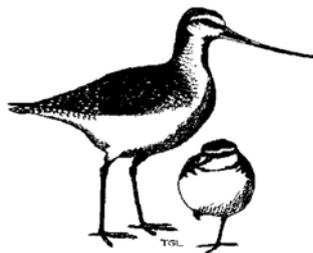
The International Union for Conservation of Nature already has them ranked as 'Vulnerable' but in Australia where most of the population is found during the northern winter, it is now ranked 'Critically Endangered'. Somehow we need to protect their stopover place in the Yellow Sea to prevent numbers from dropping even lower.



Above is a picture that Ivan posted on Facebook of himself at home in Kamchatka wearing his brightly coloured breeding feathers. Ivan and his wife are raising a chick at the moment. Apparently the volcano in the picture is active. I hope he hasn't made his nest too close to it!

Ivan also Tweeted this to me: Scientists have discovered that one side of an Eastern Curlew has more feathers than the other. Which side do you think it is? . . . The outside! If you know a myrka (Russian for joke) funnier than Ivan's, email the editor and you could win a book prize.

PUKOROKORO MIRANDA NATURALISTS' TRUST



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Magazine

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

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

Low cost accommodation

The Shorebird Centre has bunkrooms for hire and two self-contained units: Beds cost \$20 per night for members and \$25 for non-members. Self-contained units are \$70 for members and \$95 for non-members. For further information contact the Shorebird Centre.

Become a member

Membership of the Trust costs \$50 a year for individuals, \$60 for families and \$65 for those living overseas. Life memberships are \$1500 for those under 50 and \$850 for those 50 and over. As well as supporting the work of the Trust, members get four issues of PMNT News a year, discounts on accommodation, invitations to events and the opportunity to join in decisionmaking through the annual meeting.

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 field work and research. This year's are on June 21 and November 15. 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 home our unique Wrybill

Pukorokoro Miranda is the best place in the world to see the amazing Wrybill, the only bird to have a laterally curved bill, and dangerously cute

The Shorebird Centre shop has some wonderful souvenirs of this unique bird, many of them sold only by us, all of them delightful

Even instant coffee tastes even better when sipped from one of these elegant wrybill mugs for only \$15.90



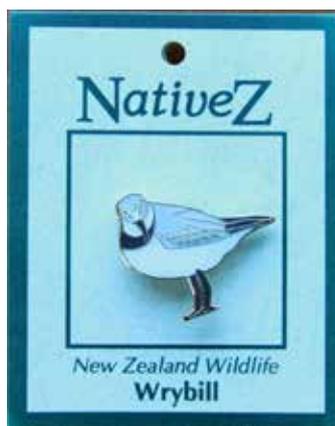
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