

Miranda News

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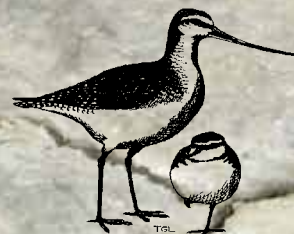


Must be a new species

An 18-hour bioblitz by scientists and volunteers finds 1000 species at Miranda including a few previously unknown

South Island Pied Oystercatchers gunned down

Looking on the bright side of what's happening at Yalu Jiang



**From
the
editor**



Capturing a great occasion

As you'll have noticed, the photo on the cover of this issue for once does not feature a bird. Instead it shows an eager young helper working alongside one of the scientists who took part in the BioBlitz held at Miranda in February.

I think it's a delightful picture and one which captures much of what made the bioblitz such a wonderful occasion. Not only did it allow us to identify more than a thousand species living on the coastal strip, it also brought together 40 scientists and 400-500 eager environmentalists – old and young – to share their enthusiasm, energy and knowledge in the cause of conservation.

There was a fantastic atmosphere which left me buzzing for days and I'm sure many others felt the same. My seven-year-old grandson says in his report inside, "When I told him I was taking a day off school my teacher said that I would learn more at the bioblitz than I would in a week at school . . . and he was right."

That cover picture, incidentally, was taken by Annette Taylor, who came from Hamilton for the bioblitz and was kind enough to share some of her photos. And that's something I'd really like to encourage.

I know that lots of you enjoy taking photos, especially of the birds, and it would be great to be able to use some of those pictures in *Miranda News*. If you get a shot you're really pleased with please let me know. It'll help me make the magazine more interesting . . . and give you a chance of fame.

Jim Eagles

Volunteers keep the centre going



OUT AT THE NEW HIDE Ray Buckmaster is focussing his scope on the shellbank to show a couple from Devonport what a Blackbilled Gull looks like. Meanwhile back at the Shorebird Centre Ann Buckmaster is telling a couple from Hongkong that they're welcome to make themselves a cup of tea in the kitchen at no charge "though there is a donation box."

It's Easter, accommodation is busy, visitors flock in and manager Keith Woodley is in the Gulf of Capricorn surveying shorebirds . . . but thanks to volunteers like the Buckmasters, from Hamilton, things continue to run smoothly. Well, smoothly apart from the fact that there are no clean towels. As soon as Ray gets back he is sent out to hang some out to dry.

Then, while Ann continues to run the shop, telling a group of English visitors how to find the track to the hides, Ray heads off to make lunch.

This is the first in what is planned to be a series of articles about the volunteers the centre depends on.

The Buckmasters are actually fairly new recruits. They emigrated to New Zealand as schoolteachers in 1970, left teaching to run a small business and, as

Ann explains, "didn't really have the time to get involved in activities like this until we retired three years ago."

Ray has a longstanding interest in birding, which started when he was 9, "after I acquired a pair of binoculars – they were rubbish but I thought they were great – and a bike which allowed me to cycle all over the place to look at birds." Ann's interest, she says, "started when Ray bought me a decent pair of binoculars."

They did visit Miranda many years ago, Ray recalls. "We seemed to be breathing in midges. There were no birds because I'd got the tides wrong. And there were no information signs like we have today. It was a disaster."

But when they retired the birding interest remained and Miranda was one of the causes they took up. Ray helped build the new hide. Ann ran catering for the bioblitz. And they are among the volunteers Keith calls upon to run the centre.

"We really enjoy it," says Ann. "We meet all sorts of interesting people. It gives us a chance to see the birds. And it keeps us learning. It can be hard work at times but it's very satisfying."

What's on at the Shorebird Centre

Annual General Meeting, May 19, 10am

Don't miss your chance to have a say in the running of the Miranda Naturalists' Trust. Guest speaker: Keith Woodley on his 20 years managing the Miranda Shorebird Centre. High Tide is at 1.30pm.

OSNZ Firth of Thames Wader Census, June 30

Phone Tony Habraken on 09 238 5284 to take part.

Nature Journalling & Field Sketching, July 12-14

Tutor: Sandra Morris. Contact the centre for details.

Front cover: Scientist and helper at the bioblitz.
Back cover: Pied Stilts

Photo / Annette Taylor
Photos / Simon Fordham

A miniature stilt from the Arctic tundra

In silhouette, the bird foraging around the edge of the stilt ponds looks like a stilt in miniature. The small head, long neck, fine needle-like bill, slender body on long legs all underline that notion. It is, in fact, a Marsh Sandpiper.

Observing one on the Manukau Harbour in March 1959, Dick Sibson wrote, in what became the first official New Zealand record for the species: "During the ensuing week this bird was generally found . . . among stilts which were evidently the company it preferred, though it barely reached up to their bellies." The *NZ Field Guide* depicts one side by side with a stilt, in identical foraging posture. But in at least one respect they are very different: amid the constant yap of foraging stilts the sandpiper works silently.

Among the tundra breeding shorebirds found in this country, there are those that occur regularly in small numbers, Sharp-tailed Sandpipers and Red-necked Stints for example. Then there are those like Marsh Sandpipers (*Tringa stagnatilis*) that are uncommon but probably annual visitors.

The breeding range of Marsh Sandpipers is a broad swathe of steppe and boreal zones, from Eastern Europe to Eastern Russia, Northeastern China and Mongolia. Their wintering range is even broader, across southern Africa to South and Southeast Asia to Australia. They are found in a variety of wetland habitats, mostly terrestrial, though sometimes on intertidal flats. The Miranda bird is usually seen on the Stilt Ponds but also appears among other waders in front of the hides.

From a distance it looks pale – greyish above, white below – although a closer view reveals strong patterns of grey and dark feathers fringed with white. In breeding plumage the head and neck are heavily streaked dark brown, with bars and chevrons along the flanks. Patterns of greyish cinnamon and dark brown appear on the upper parts. In flight a broad white wedge from the upper tail to the back is particularly marked, especially when contrasted with the darker plumage. Also noticeable are the long trailing legs. Of birds likely to be found in New Zealand it could be confused only with the Common Greenshank, but it is smaller, more slender, with a finer bill.

Marsh Sandpipers feed mainly in



Marsh Sandpiper and friend.
Photo / Ian Southey

shallow water, picking items off the surface in the manner of stilts. Sibson wrote: "It was interesting to note that when it feeds in very shallow water its long legs cause it to tip its back and tail sharply upwards in what might almost be called a diagnostic attitude." They may also dart back and forth or around in half-circles, or, also like stilts and

avocets, sweep the bill side to side in a scything action. With their long legs they are also adept foragers in deeper water. Probing in soft substrate has also reported but is less common.

The Miranda bird was still present in late April - after most other visitors had gone - so perhaps it will stay on.

Keith Woodley

Now in residence at Miranda

This may be considered the quiet time of year at Miranda but there are still plenty of interesting birds to be seen.

By late April, following the departure of most of this year's Arctic migrants, 575 Bar-tailed Godwits, one Black-tailed Godwit and around 600 knots remained.

Along with them was a Pacific Golden Plover seen on 20 April. As very few of this species are thought to overwinter in New Zealand, it will be interesting to see if this bird does linger.

The lone Marsh Sandpiper continues to hang around and one of the small flock of Sharp-tailed Sandpipers is also still there.

With winter approaching substantial numbers of Pied Oystercatchers and Wrybills have arrived from the South Island for their annual holiday in the (sunny?) north and now dominate the scene at the Limeworks.

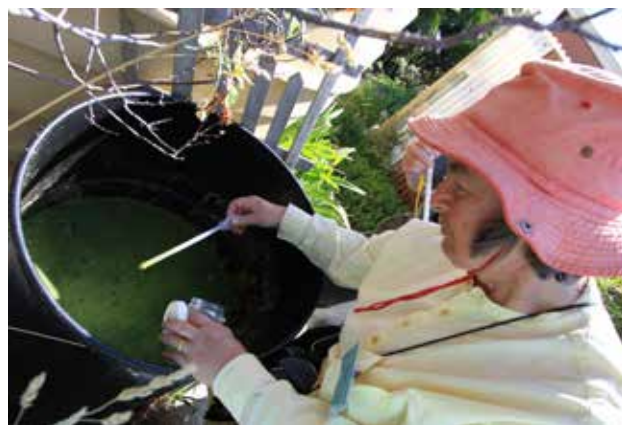
The Royal Spoonbill flock numbers 14. As usual a solitary White Heron is in residence following the annual summer breeding season reunion down at Waitangiroti Nature Reserve in South Westland.

Arctic Migrants

Bar-tailed Godwit	575
Black-tailed Godwit	1
Red Knot	600
Whimbrel	
Turnstone	
Sharp-tailed Sandpiper	1
Marsh Sandpiper	1
Pacific Golden Plover	1
Curlew Sandpiper	

New Zealand Species

NZ Shore Plover	
Wrybill	2200
NZ Dotterel	
Banded Dotterel	120
SI Pied Oystercatcher	c3500
Variable Oystercatcher	
White-fronted Tern	
Caspian Tern	
Black-billed Gull	
Pied Stilt	
Royal Spoonbill	14
Banded Rail	
White Heron	1



Bioblitz action (clockwise from top left): Dr Bruce Hayward with a budding scientist; Dr Margaret Harper looking for diatoms; a shore skink; bug hunters; Shane Castle's challenge; Hauraki Plains College students learn about eels; moth trap in action; Dr David Riddell and helpers at the Stilt Ponds.

Photos / Jim Eagles, Chris Eagles, Annette Taylor, Alex Tully

Bioblitz hits all its targets

Jim Eagles laps up the atmosphere as enthusiastic scientists, keen conservationists, eager students and excited children mingle at the Miranda Bioblitz

You could say the 1000-species BioBlitz is guarantee success before it even starts . . . thanks to Keith Woodley cleaning out the guttering of the Shorebird Centre.

The day before, while we're fixing up the marquee, re-arranging centre furniture, putting up the web-of-life and the species thermometers, erecting tables for scientists' microscopes, rigging power leads and organising displays, Keith announces that samples he took out of the guttering contain "two species of bacteria hitherto unknown to science."

That's very exciting, I say. Aren't new species sometimes named after the discoverer?

"Well," muses Keith, "a bacteria called *Poxus Woodleyii* would be pretty good. So long as it doesn't turn out to be something nasty."

Alternatively, I recall, a few years ago I dived in Papua New Guinea with a professor of tropical reef fish who had just discovered four or five new species of reef fish and was auctioning the naming rights to raise money for his foundation.

"Hmm," says Keith thoughtfully, "that could be worth thinking about."

So it might end up being a choice for our centre manager between eternal fame via *Poxus Woodleyii* or raising millions for the Shorebird Centre via *Poxus Alangibbsii* or *Poxus Johnkeyii*.

But either way the bioblitz is already assured of making scientific history.

The 18 hours of the bioblitz start well before dawn with a glowing trap luring moths to be popped into containers ready for later identification.

It's still dark when Adrian Riegen leads a team through the gloom to set up a mist net by the cabbage trees at the centre and another two by the fennel forest near the hides.

As dawn breaks and we wait for birds to fly into the nets, Stephen Davis explains that our target isn't so much the birds – we already know what they are – but the parasites they might be



OVER THE TOP: Bioblitz organisers Peter Madison and Eila Lawton stretch to put the species barometer above the official target of a thousand.
Photo / Charles Gao

carrying.

Soon we catch our first bird, a beautiful young kingfisher, which is bagged and sent off to the scientists. We wait. Word comes that a thrush and a blackbird have been caught at the centre. We wait. The kingfisher is returned to be released along with a report that it had no parasites. Nor it seemed had the thrush or the blackbird. We wait. No more birds. The nets at the fennel forest are taken down.

Back at the centre it is all action. Marshals are directing traffic and organising parking for the steady flow of visitors. Lines of red-shirted experts sit at their tables examining the specimens which pour in and chatting enthusiastically with visitors. Among them are

scientists from Landcare Research, NIWA, DOC, Auckland, Victoria and Waikato Universities, UNITEC, Geomarine Research, Kessels Associates, Auckland Museum, Biodiversity Waikato, Auckland Council, Auckland Botanical Society and Auckland Botanical Gardens. It's a pretty impressive brains trust.

At the head of the room the white-bearded figure of Peter Madison presides, collating the stream of reports from the scientists, and occasionally swooping off to solve some problem. I think he looks pleased. Outside the first lines of green are moving up the species thermometer.

The Tikapa Flavas cart arrives from Kaiaua with supplies of coffee and food. I snatch a flat white. Marvellous.



And reviving.

Several volunteers prowling the grounds, brushing trees and bushes with butterfly nets catching insects. A burst of excitement signals the discovery of a very recent immigrant, the wool carder bee, on blue-flowering convolvulus.

In the roadside ditch some Eco-Quest students are digging up lumps of earth to be checked for living things. The ground is obviously very hard.

An elderly man appears with his arms full of plants. "This'll give you something to be getting on with."

Beside the garage lots of slippery, furry, scaly things caught in traps and nets set along the foreshore strip are on display. A group of Year 10 science students from Hauraki Plains College shriek in mingled excitement and terror as they learn how to pick up short-finned eels.

Diatom expert Margaret Harper, from Victoria University, and her research assistant and husband John, professor emeritus of applied mathematics, are just setting off to collect samples and I dash over to ask what diatoms are. A major group of algae, explains John. And how many species are there? "Oh, thousands, tens of thousands."

Before I get too excited about achieving the 1000 target with one blow he adds, "Unfortunately I'm not sure how many we'll find today because the drought has dried up a lot of the water round here."

I watch Margaret take samples from a very green water butt at Keith Woodley's cottage. She then uses a cunning Heath-Robinson-style collect-

ing device made by John - with two spoons, one bent and one straight, on either end of a pole - to gather material from the remaining pool in the centre's almost-dried-up lake. "It cost about 20c," Margaret says proudly. "That's a bit cheaper than the rest of the equipment I use and it's very effective."

Specialist tours are setting off at regular intervals and I join some local fishing enthusiasts in dragging a net off the beach at Taramaire.

A group of Hauraki Plains students come along. Several of the girls look rather dolled up and I don't see them being much use. Wrong. "Are we allowed to pull the net in? Oh coo-ool." And they whip off their shoes and socks and splash into the water.

Of the few fish caught the biggest excitement is over a baby flounder. "Oh, cute. . . Pity there weren't some big ones too."

My wife Chris heads out with botanist Graeme Jane whose bronzed legs in short shorts take him round the coastal strip at a terrific pace. She reports:

Graham had a list of plants he was expecting and ticked them off along the way. By the end of the walk he'd marked off about 60 - rather fewer than expected due to the bone dry weather - but also had a bag of half-a-dozen unnamed discoveries.

The most exciting find was a lovely flowering mimulus, the rare native musk, found in an unpromising spot near a fence on the edge of an area churned up by cattle. I found three species which were added to the list and was very pleased with myself.

Grandson Jamie (9) joins Ian Southey on a reptile walk. He reports:

I walked through the damp grass after our leader, the barefooted Ian, in search of lizards. My shoes were quickly soaked. Under the first log we discovered a tiny, barely 2cm long, green skink with black and mustard spots.

Ian lifted up the next log but it wasn't a lizard we saw. A rat jumped out and on to my leg! Its sharp claws dug into my skin before Ian quickly grabbed it.

Much to our astonishment the skink under the next log suddenly leaped on to Ian's face accompanied by a shout of surprise. Who knew that skinks could fly?

Another time Ian decided to try to catch a bumblebee so he could lick it to see what it tasted like. The bee was too quick so he licked the flower it had been feeding on instead.

The rest of the expedition passed without any more excitement, except for a baby mouse that returned with us to have its stomach contents examined.

Back at the centre the powhiri is under way and the ferocious figure of Shane Castle, brandishing a taiaha, feathers knotted in his hair and wearing only a loin cloth, challenges the visiting contingent led by Hauraki Mayor John Tregidga, Ngati Paoa elders, Jono Clark from EcoQuest and his students from the University of New Hampshire, workers from Te Whangai Trust and lots of others.

Keith Woodley thanks everyone for coming to Miranda to support the bioblitz and explains that the aim is



not only to find out what species are living on the coastal strip but also how to better manage the area to ensure the shorebirds keep coming here.

I can't hear the speech by Mayor Tregidga, who also chairs the Hauraki Gulf Forum, but according to a front page report in the *Franklin County News* he applauds the bioblitz and the work of the trust because, "as much as we love this place, we know it is deteriorating and we know the impact we are having on the land" and there is "a growing awareness that New Zealand's future is about protecting the environment." Kia ora, Mr Mayor.

I grab a toasted sandwich and a coffee from the Tekapa Flavas cart and head off with marine ecologist David Riddell and an entourage including several enthusiastic small children to look for invertebrates.

There's a burst of excitement when the kids find a small pool – all that was left of a dried up creek – full of lively small fish and dead shortfinned eels. David identifies the fish as gambusia or mosquito fish. Sticking a thermometer into the pool he reads the temperature. "28.4. That's really hot. No wonder the eels died."

With some difficulty he persuades the young scientists to leave the eels and move on to the Stilt Ponds. Samples of mud prove disappointing. "When I came two months ago there were lots," he says. "Now with the dry weather there's nothing. But the birds are still here so there must be something."

Nevertheless the kids have a great time tracking through the mud finding

a New Zealand mud snail, a spider, a caterpillar and a few crabs to be taken back and studied.

The creek is a much happier hunting ground for scientists with small fish, shrimps, mussels, worms, crabs, anemones and goodness knows what else. Lots of sample jars are filled. And it's also great for children. There are constant cries of "Oh my god look at this." Plus the kids have an excuse to get covered in mud in a good cause. They have a great time.

Meanwhile grandson Liam (7), a budding scientist himself, has been having earnest conversations with experts back at the centre. He reports:

"What are you doing?" I asked one scientist, who smiled and said "Looking for tiny marine invertebrates. Here, have a look at this." He got out of his chair so that I could look through the microscope on his desk and put a slide with lots of really tiny shells, as small as a grain of sand, under the viewer. I looked down the microscopic and saw the now big shells of tiny marine animals that lived in the mud. Some of them looked like teeth, some like crystals and some like rocks. It was fascinating!

Next I found a desk covered with ink dots on pieces of card from tracking tunnels. When I slid a card with pretty tiny marks under the microscopic they grew bigger and I was able to make out a pattern of tiny footprints. I looked in the guidebook on the table and figured out that they were skink footprints. Mum was amazed that I had worked it out all by myself but it was easy.

As I wandered around seeing what insects looked like close up and feeling how slimy eels were to touch I talked to more scientists. One told me about giant worms (he had one in a jar) and another about shrimps and sea lice.

I couldn't wait to get back to school and share my news. When I told him I was taking a day off school my teacher said that I would learn more at the bioblitz than I would in a week at school . . . and he was right.

And so the day continues. Curious visitors come and go, A few are passersby who know nothing about any bioblitz but are sufficiently intrigued to stop a while and join in.

Parties of volunteers continue to set out on sample-gathering expeditions. By now most of the obvious species have been ticked off. But every now and then a new find causes a flurry of excitement with other experts being called over to confirm an identification.

These gatherers include lots of MNT members and folk from surrounding Forest & Bird branches, students from Hauraki Plains College, Trident High School in Whakatane and Kaiaua School, a team from the Te Whangai Trust, interested locals and, especially, those wonderful EcoQuest students from the University of New Hampshire. There's a constant buzz of excitement. By the end of the day we guess maybe 500 people have joined in.

Gradually the level of activity dies down and people start heading for home. I meet my family at the Bayview Hotel for a feed of fish and chips AND a pint of Speights which gives off steam



as it slides down my parched throat. With my thirst slaked I'm able to join in the excited chatter about what a great day it was.

My daughter Alex is buzzing as much as her boys and says:

As soon as I stepped into the centre I was hit by an atmosphere of knowledge that crackled in the air like electricity on a humid day. The main room, was like a laboratory, filled to capacity with scientists bent over microscopics, and that was exciting enough. But what made it really special was the way all these highly qualified experts were happy to share their information and enthusiasm with all the curious onlookers. It was like any amateur naturalist's ultimate dream. The boys just loved it. And so did I.

Back at the centre a hardy band of workers soldier on. A team from Niwa arrives a little late and dashes off to the Taramaire Stream looking for goodies. The light traps are brought out again and lure in lots of moths.

Peter Madison continues totting up his figures and by midnight his tally has risen to 789. But as the end approaches not much is happening. It is, according to Keith Woodley, "like waiting for midnight on new year's eve."

If so, at least we achieve our combined new year's resolution of finding 1000 species. In the days afterwards results continue to flow in from samples taken away to labs for further checking, and 17 days later Peter sends the email we've been waiting for: "Another 10 diatoms from Margaret Harper and we have reached 1004!" Yippee. 🐦

The rich food chain that keeps the birds coming

Super-scientist **Peter Maddison** introduces the amazing array of species revealed by the 18-hour bioblitz

Miranda is known for its spectacular shorebird flocks but why are the birds here? The answer lies with the abundant food found in the intertidal zone and coastal margins. Food items – such as polychaetes, molluscs and crustacea – form part of a complex food web the foundations of which are invisible to us. As with any ecosystem, the basic building blocks for all life forms begin with various

micro-organisms. Birds are just a numerically tiny though highly visible component of this system.

This is vividly illustrated in the results of the bioblitz on February 28 which surpassed its target of 1000 species.

With only a few more results expected, the total number of recognisable taxonomic units currently stands at 1142.

The bioblitz species tally

BACTERIA	32
ALGAE (inc. DIATOMS)	175
FUNGI & LICHENS	58
BRYOPHYTA (Mosses)	11
PTERIDOPHYTA (Ferns)	2
MAGNOLIOPHYTA (Higher Plants)	257
PROTISTA (Single-celled organisms)	22
ANNELIDA (Marine- and earth-worms)	27
MOLLUSCA (Shellfish, Snails)	54
ARACHNIDA (Mites, spiders, harvestmen, false scorpions)	69
CRUSTACEA (Crabs, sandhoppers, slaters)	51
INSECTA (Beetles, flies, moths, wasps)	262
Other ARTHROPODA (Centipedes, millipedes)	6
Other INVERTEBRATA (Sponges, nematodes, etc)	28
CHORDATA (Fish, frogs, skinks, birds, mammals)	88
TOTAL (Plants and animals)	1142



Considering the event was held towards the end of a three month drought, this total compares very favourably with that of other bioblitzes. But Miranda-Pukorokoro is a special place – combining a coastal ecosystem with mangrove and marine mudflats.

It was interesting to note the number of bacteria reported by Bevan Weir of Landcare Research. From a dozen samples of water/mud etc., the 32 taxa (“species”) of bacteria include 10 not previously known from New Zealand.

The “pink stuff” growing on the alga in Widgery Lake was one of these: *Thiohalocapsa halophila* (a phototrophic purple sulfur bacterium), which was described originally from the Camargue on the Mediterranean coast of France. Could it be that our intrepid bird-watchers missed a passing flamingo on the Centre pond?

One bird species was surprisingly absent from the list recorded on the day. Turnstones are the third most common tundra-breeding wader to occur here, and each year we have some – sometimes up to 20 or 30. They are almost always seen by visiting birdwatchers, even though at high tide they tend to hide on the seaward side of the outer shellbank. But on the day of the bioblitz, and on subsequent days, not a single turnstone was seen. Most likely they were further up the coast around Kaiaua. Nevertheless they remain a glaring gap in the birdlist for the day.

Of particular interest to us are the findings of Margaret Harper, a diatom specialist from Victoria University. A diatom is “any of various microscopic protists of the phylum Bacillariophyta that live in both fresh and marine water, have hard bivalve shells (called frustules) composed mostly of silica, and often live in colonies. Most diatoms can perform photosynthesis. They make up a large portion of the marine plankton and are an important food source for many aquatic animals. The skeletal remains of diatoms are the main constituent of diatomite.”

Margaret reports the following about the 159 taxa she found:

The diatoms include 13 taxa that are definitely new records for New Zealand, while nine more taxa may be new records for New Zealand. There could be the odd undescribed taxon but globally the number of described taxa is large and the literature on them is scattered.

50 taxa have been recorded in the New Zealand Inventory of Biodiversity’s freshwater checklist and 80 in their marine list (one is from the fossil list which is still extant elsewhere). At least 57 taxa are tolerant of brackish water, in fact I suspect all the common ones have to tolerate a wide range of salinity. Most of the planktonic forms are rare and probably washed in from the Hauraki Gulf. There are lots of benthic forms that live on and near the surface of sediments (sand and mud) and others I found living on

mangrove pneumatophores (and on *Caloglossa* on them) and shells. This includes a couple of diatom species that live in tubes forming miniature feathery alga.

Findings such as these achieve a key objective of the bioblitz in that they add immensely to our knowledge of the Miranda coast, information that will inform future ecological projects and studies.

This achievement has, of course, only been possible because of all the amazing support the bioblitz received.

The teams of scientists from Auckland Council, Auckland Museum, Department of Conservation, EcoQuest Education Foundation, Geomarine Research, Kessels Associates, Landcare Research, NIWA, Unitec and Wildlands did an amazing job.

Their expertise was supplemented by the expertise of a number of individuals. The support of volunteers from the local community and schools helped in the turning of many stones, sampling of many plants and trapping and spotting animals and plants of many kinds.

Our thanks to all for making this a remarkably successful event. 🐦

If you’d like a souvenir of the bioblitz, the Shorebird Centre has t-shirts for sale for \$24.90. Colours are red (as worn by experts) and green (volunteers). Sizes are XL-XXL.

From the Manager A time of triumph and tragedy

Keith Woodley reports on a hectic few months which have included big crowds, interesting bird sightings and a brutal massacre of South Island Pied Oystercatchers

One of the special qualities of Miranda is its apparent remoteness. Walking the shell banks on a falling tide, the vast tidal flats spread beneath the great arch of sky – Dick Sibson’s “Cathedral of the Saltmarsh” – appears to confirm this. Apart from Thames immediately across the bay and the string of buildings at Kaiaua to the north, there is no urban presence here. And yet we are just 60 minutes from both Queen St and Auckland airport. At night the glow of the metropolis lies along the top of the Hunuas. A significant proportion of New Zealand’s population live within easy drive of the Shorebird Centre. And from time to time this proximity throws up other surprises.

Take recent weather patterns for instance. One Thursday in early December it rained all day in Auckland. I know this because several people visiting the centre next day said so. That same day here was marked by broken overcast and not the slightest hint of rain. It did not seem significant at the time, but we had already gone at least three weeks without rain. On other days I would watch as rain squalls drifted across the northern edge of the Hunuas and over to the Coromandel, while to the south the Hauraki Plains lay beneath dark brooding clouds. But not a drop of moisture at Miranda: a pattern that would last for weeks more to come.

It only became official at the beginning of March: like the rest of the upper North Island (but soon to be joined by the entire island) Miranda was in drought. Widgery Lake had been a bed of bleached pale algae since



Bodies on the shellbank.

Photo / Keith Woodley

well before Christmas, although here and there a few damp patches lingered. Around one of these a local White-faced Heron stalked each evening – occasionally pulling small eels from their hiding places. A pair of Banded Rails began to be seen in mid January – but within a few weeks they departed, leaving no indication of any attempt to breed. Perhaps next year for them. Last season’s successful breeding pair of Bittern across the road also seemed to abandon the area early, with no sightings since November. There were

however, all too-regular sightings of the local water tanker arriving at the gate to replenish our tanks.

But through all this the people still came to Miranda. Many of them. Indeed, it felt like this peak period – from Christmas to late March has been perhaps our busiest yet. For days at a time there always seemed to be people on the premises. Then in early February things suddenly became even busier as we prepared for the bioblitz.

We have had a several large events at the centre. Several of our Open Days

where we had a special guest speaker have stretched the building to capacity. Then there was the memorable occasion on World Wetlands Day when we hosted 180 people for lunch. But the bioblitz lifted things to another level. On the day we estimate we had between 450 and 500 people filter through the place. Beginning before 6am and extending to midnight, for some it was a long day. But for some of us, the long days had begun even earlier as event planning gathered pace. A few days out from the event I confess to finding myself looking forward to the day after. Yet that day when it came required getting the place back to normal operational configuration, while also preparing for the Open Day two days later. And all the while the daily visitors kept coming.

So to March – traditionally one of our busiest months: and this one was no exception. Most of the month was bookended between two particular events: the BioBlitz at the end of February, and the two-night stay by 29 students from Kaipara College. During the bioblitz the Sibson Room was lined end to end with tables, microscopes and scientists. On the Monday morning of the Kaipara visit the south end of the room was given over to students sitting around blocks of tables working on projects, while the north end of the room was given over to the 36 students from Waihi College who were here for a talk. If ever our need for expanded facilities required further evidence, this was it.

So all in all this summer I have reflected on how things have changed since I first arrived here. How the sole charge operation of the 1990s, with assistance from volunteers, has become an operation that could not function without the extra staffing we now have. So the contributions of Maria and Kristelle this summer have been essential. And the presence of Heloise as a long-term volunteer from late October to the end of January was a superb bonus.


Meanwhile out on the shoreline the Shore plover remained here until early March, but has not been reported since then. Hopefully it has made its way



The birding sign erected by Miranda Naturalists' Trust at Taporā, on the Kaipara Harbour (above), has been destroyed by fire. The sign, at the start of the track to Manukapua Wildlife Refuge, was built by Adrian Riegen put up with help from Gillian Vaughan and Ian Southey. But when Adrian visited recently he found that a big scrub fire through the sand hills of the Kaipara had reached the edge of the reserve and damaged the sign (see below). "I have retrieved the sign which is a bit the worse for wear but can be re-positioned. The wood frame was burned or missing." Photos / Adrian Riegen



back to Motutapu – a desirable outcome indeed if a breeding population is to be successfully established there. The Greater Sand Plover, a relatively rare species at Miranda, was seen over much of the season, as was the Marsh Sandpiper. Then in early March a couple of stilts on the Stilt Ponds attracted much attention. One was clearly a hybrid, but the other was a Kaki or Black Stilt, albeit with pale plumage around the base of its bill. Its colour bands were stained so identification was not straightforward, but the word from Twizel is that it is a bird that was released into the Cass valley in 1998. However, the really intriguing news was that it had not been seen since 2004. Apparently older adult Kaki sometimes develop pale plumage around the bill.

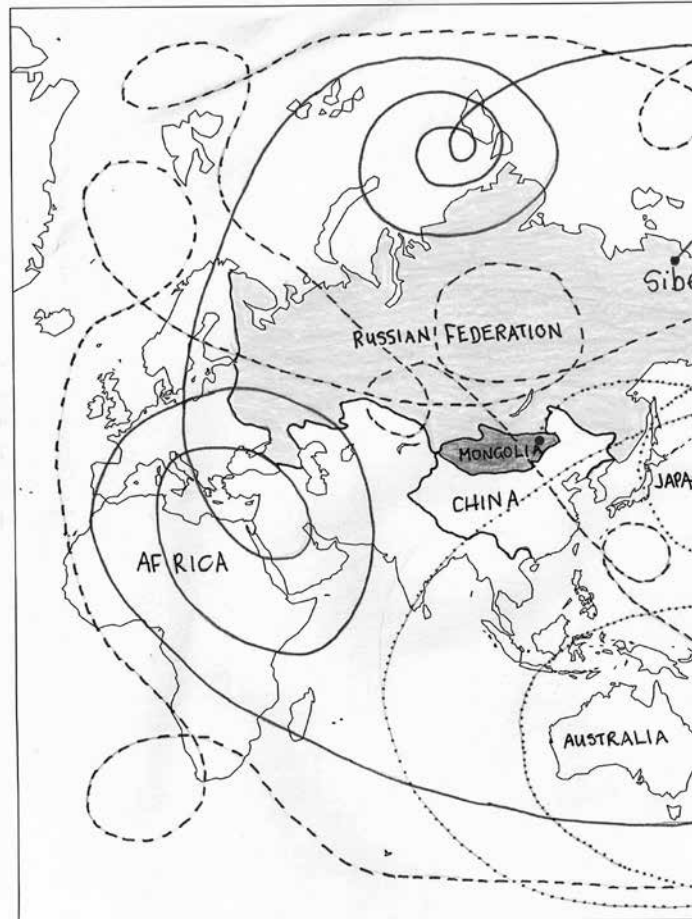
Over the years we have had a few problems with theft, particularly with vehicle break-ins at the car park. There has also been the occasional act of vandalism along the coast. However a particularly serious incident occurred in early March. On Monday morning 11 March I collected 15 dead SIPO from the tip of the main shellbank. The tide was only just receding and the birds lay in clusters along the most recent tide wrack. They were wet which confirmed they had been in the water. They were also quite fresh so they likely died the previous afternoon or evening. Twelve birds were packaged and dispatched to the Pathology Lab at Massey, Palmerston North. Autopsy revealed that all had been killed by a shotgun. Full details have been passed on to DOC for further action. 

GODWIT

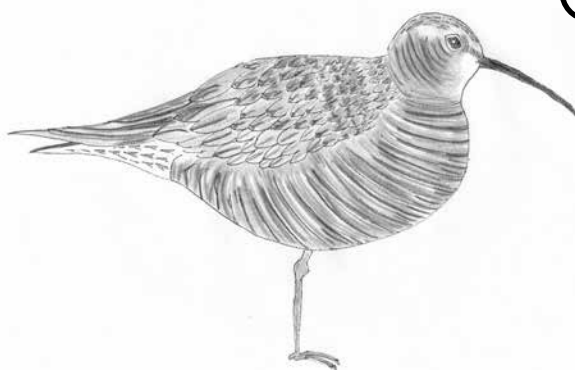


O

Gidday,
Godfrey Godwit
here again. Today I want
to introduce you to some of my
cousins who visit Miranda. We all
belong to the family group Scolopacidae
which means we are waders and don't mind
getting our feet wet. The cousins that I am
going to tell you about all share the same last
name - sandpiper. Just like in your family some
of my cousins look like each other but others
look completely different. When we are not at
Miranda we all live in different parts of the
world. Can you look at the map and see
if you can follow the route my cousins
need to take to find their way home
from Miranda to where they
live during the winter?

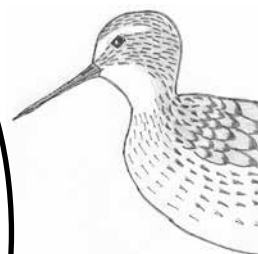


Hello, I'm Katie
Curlew Sandpiper. I am the
smallest of the sandpipers found
at Miranda at only 19 cm from my tail
to my beak. I like to feed on the mudflats
and can often be seen wading right up to my
tummy with my head under the water looking
for crabs and worms. You can recognise me by my
long thin beak, which curves downward, and my
black legs. When I first arrive in NZ in springtime
I have a plain grey-brown back but when I change
into my breeding plumage I am a wonderful
rusty colour with dark bands on my chest.
Every NZ winter I fly back to an Arctic
part of Russia called Siberia to lay my
eggs. Can you help me find my
way on the map?

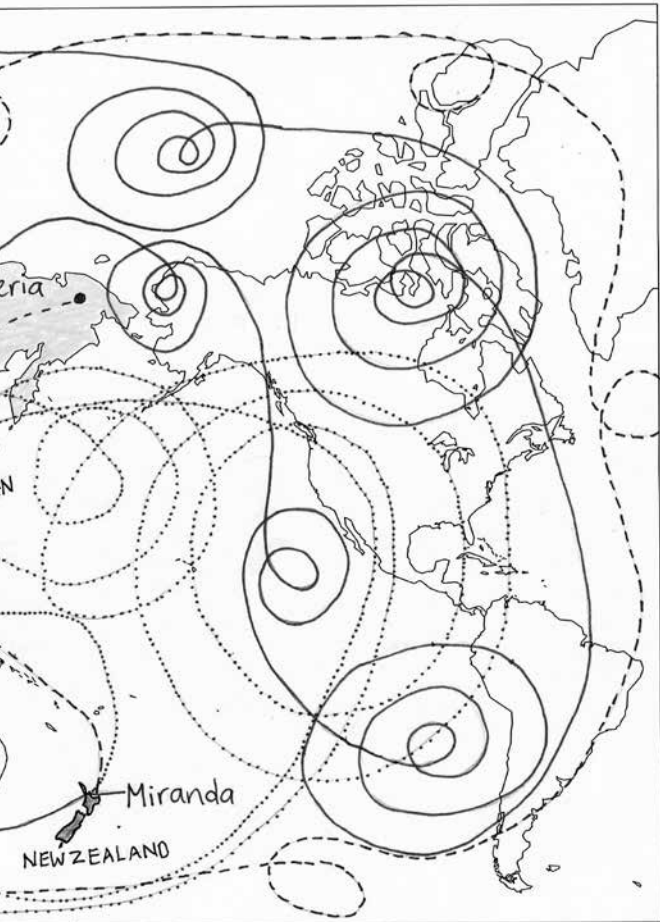


O
O

Сайн уу?
(pronounced
'Sain uu?') as we
say instead of 'Hello'
in Mongolia. I'm Marty
Marsh Sandpiper. I have
long green legs and a long
thin bill. I look a lot like
a young pied still with my
grey brown wings with dark
flecks on my back and
chest. Just like the pied
stilts, I prefer to feed on
the tiny animals that live
in the freshwater pools
and lakes rather
than out on the
mudflats.



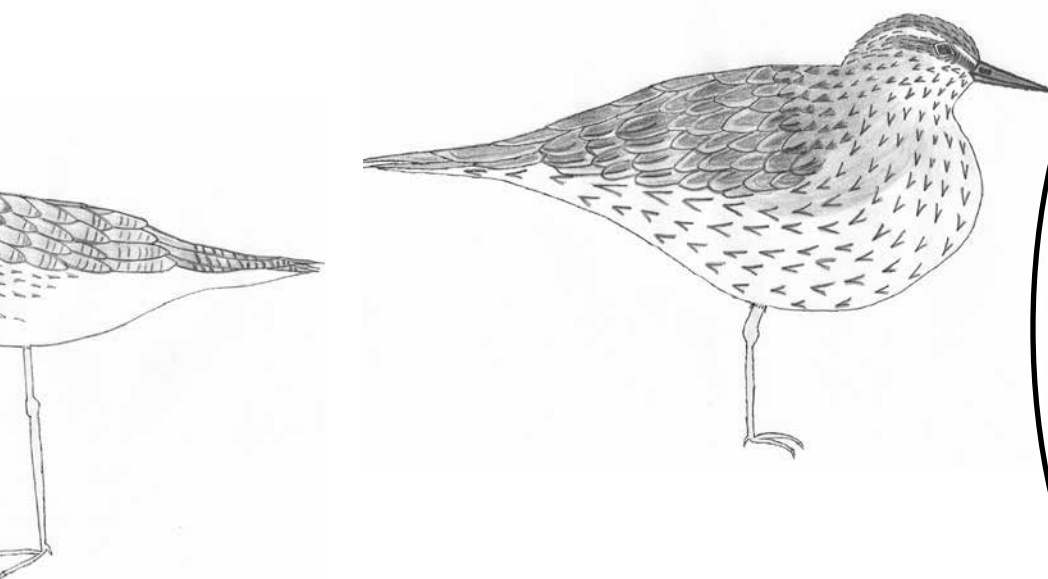
TIMES



At the end of February I counted about 500 people, including lots of Junior Naturalists like you, at the Miranda Bioblitz. Looking through my binoculars I was able to see them doing all kinds of things. Some were looking for all the different plants. Another group were catching insects. Others went fishing for fish, eels, shrimp, crabs and plankton (tiny animals and plants that live in the water). I could hear the squeals all the way out to the mudflats when the kids from Hauraki Plains School touched the eels.

My friend Jamie went in search of lizards. He found lots of skinks, which was cool, but also a rat, which was not cool. At the end of the day, Jamie came up with a great joke: "What would happen if the rats ate all the lizards at Miranda? They would become exskinkt!"

Is this a photo of you looking at shrimps and crabs at the Bioblitz? If you - or anyone else - want to win a neat book about a godwit called *E3 Phone Home* just write to me at seagulls@clear.net.nz or c/- 1293 Ohauti Rd, RD 3, Tauranga 3173 and you'll go into a draw.



Привет
(pronounced 'pree-vyet'), which is 'Hello' in Russian. I'm Sheldon Sharptailed Sandpiper. I look a lot like my cousin Katie but I have a straight pointed bill and yellow-green legs. You can tell when I am ready to return to north eastern Siberia to raise chicks because my wing and back feathers turn chestnut brown and I get these cool brown boomerang-shaped marks on my chest and belly. I like to roost with the wrybills, knots and stints but I tend to feed in the shallow edges of the saltmarsh and lagoons.

So much to do, so little time

MNT chair **Gillian Vaughan** looks back on a year which has seen a new hide, a new book, lots of visitors, well-attended gatherings and big plans for the future

In preparing this report for the AGM I have looked back at the 2012 year, and it is at this time of year that the membership elects the trust council. In 2012 Len Taylor and Keith Thompson stepped down from their roles on council and Tansy Bliss was elected, Tansy had to stand down due to getting a job on the Chatham Islands, and shortly after Trudy Lane was co-opted to council. We still have a place on the council so if this is something you would be interested in please contact Keith or myself to talk about the details with you.

Jim Eagles joined us as magazine editor in 2012 and on a personal level I have to say I was ecstatic to have him take over. I have enjoyed both watching Jim's take on issues, as well as not doing it myself, and am looking forward to where he takes the magazine in future.

The trust ran the normal programme of events, starting with the field course in January, two open days an AGM and a potluck dinner, with other courses sprinkled throughout the year. Speakers included Gerry Kessels on windfarms, Pauline Conayne on the Rena Wildlife response and John Dowding on the state of New Zealand Dotterel. I was personally very pleased with the turnout for the potluck dinner. This mid winter dinner has become a real social highlight, as well as giving members a chance to hear a good speaker, in 2012 long term trust member Brian Gill.

The 2012 Field Course had one of the lowest uptakes for many years, for no apparent reason. It did run, and in 2013 the course was once again fully subscribed. In 2014 there will be significant changes to the course, with Eila Lawton and Peter Maddison retiring from their roles. Eila has been an essential part of the field course since she took over the convenor role in 2002, as the convenor, and more recently as one of the tutors, her presence, and that of Peter Maddison, a long term tutor and all around expert will be missed. Change does however provide opportunities, and I understand that course convenor Brigid Glass has taken the opportunity to invite others to join her team and relook at the whole content and presentation. I am sure that the team in 2014 will be up to scratch and if members are considering attending the Field Course I would encourage them to do so.

As well as successful turnout at events visitor numbers at the Centre in 2012 held up to the increases we had had in 2011 (as a result of the Rugby World Cup) and the early 2013 numbers have been on a par or slightly up from early 2012. Visitor numbers are important to

the trust, not only as much of our income comes from shop sales and accommodation, but more importantly as a means of allowing us to educate people about shorebird conservation.

Having spent time at the Centre over the summer we've

just had I have to acknowledging the atmosphere created by our staff, having some days with three or four staff members or long term volunteers at the centre creates a real impression of vibrancy as you walk through the door. The different skills brought by Keith, Maria and Kristelle to their roles seem to have coalesced into a real sense of unity and I thank all three of them for the work that they do. 2012 was a big year for Keith with the publication of *Shorebirds: Sharing the Margins*. This is a work that will inform much of the work in Shorebird Conservation in New Zealand in the upcoming years and he should be proud of his achievement.

There are always more people to thank for their work at the centre, and I would like to particularly acknowledge those who have spent ongoing time in the garden, Warwick Buckman and Janie and Kevin Vaughan.

Taking the MNT into the 21st Century the Shorebird Centre got a Facebook page in 2012 (thanks to Emma Pearson), and the shop went online (thanks to Trudy Lane). If you are looking for a purchase but can't make it to visit please consider using our website – or just call!

Down the road the year 2012 saw some big changes at bird viewing area, with the new hide completed and the new path put in by DoC. While there are still some kinks to work through with the new path I think it is safe to say that the new hide is a success, with people getting close up views of the waders on many tides. Over the winter the stilt ponds became flooded and did not drain for some time, this lead to quite big changes around the edges of the ponds which regular visitors will have noticed. The flap gate has been fixed and the water levels have largely returned to normal, it does show the importance of habitat management.

In 2012 the Trust council began considering a programme of habitat enhancement along the coast from the Limeworks to the Taramaire Stream. No one appears to be willing to take responsibility for the idea, however it became clear that a Bioblitz would be a useful way forward in terms of gathering baseline data. Little knowing what was coming council blithely agreed that it would be a good idea and we should proceed. From there the Bioblitz came to dominate the closing days of



The 38th annual general meeting of the Miranda Naturalists' Trust will be held at the Shorebird Centre at 10am on Sunday May 19

the year and the start of the next one. Many people put a lot of work into making Bioblitz happen at the end of February. In particular Peter Maddison put a huge amount of work in to making this event a success, it could not have happened without him and I thank him, and all of the others involved, wholeheartedly for their efforts.


As there was no major delegation to Asia to complete shorebird counts the MNT's activities on an international scale seemed limited in 2012. However that seeming quietness is belied when you realise that Keith attended the Flyway Partnership meeting in Indonesia, Kristelle represented the trust at the Taipei birdwatching festival, Adrian was in the Gulf of Carpentaria reconnoitring for an expedition that has just taken place. Thanks to a generous donation we were able to fund the printing of a number of brochures in Chinese which Jimmy Choi (the speaker at our most recent open day) and David Melville were able to hand out to the public while they were doing research at Yalu Jiang National Nature Reserve in March and April.

While in Indonesia Keith was looking at ways of advancing further shorebird surveys in North Korea, as yet the funding has not been found, we will continue to look for funding. As we go to print we are expecting a delegation from the forestry department in China to visit in late April, they are interested in wetland management and we will be but one stop on a tour in New Zealand and Australia. Our thanks go to Wetland International China and Oceania for making this happen.

Conspicuously absent from the overseas list is David Lawrie, however instead of travelling this year he has been spending every spare moment involved with submissions to the Auckland Plan. The changes that are occurring in Auckland have the potential to have dramatic impacts on the Manakau Harbour and shorebirds, and we are thankful to have David working quietly behind the scenes for us as well as the other organisations he represents. We are also currently in discussions with Hauraki District Council about local issues including the cycleway.

It's very clear that a major constraint on the trust's activities now is time. With the increase in visitor numbers in the last two years our staff have very little time from September to April to do jobs other than the basics of running the visitors centre and accommodation. As an example Keith has been working on new signs for the hide and trail for some time now, however has not had the opportunity to finish them over summer (members can expect new signs at the hide and along the track later this year).

These constraints on time are not confined to staff, with council members also busy. This has led to a delay in the building project, with no one currently driving that project through. Members should be aware that this project has not dropped off the agenda.

Looking ahead, in 2015 the Trust will turn 40, a significant milestone. We will be looking at the 2015 year to celebrate this event, and if members have any ideas about how they would like to see the anniversary celebrated I would be interested in hearing them. 



The new hide

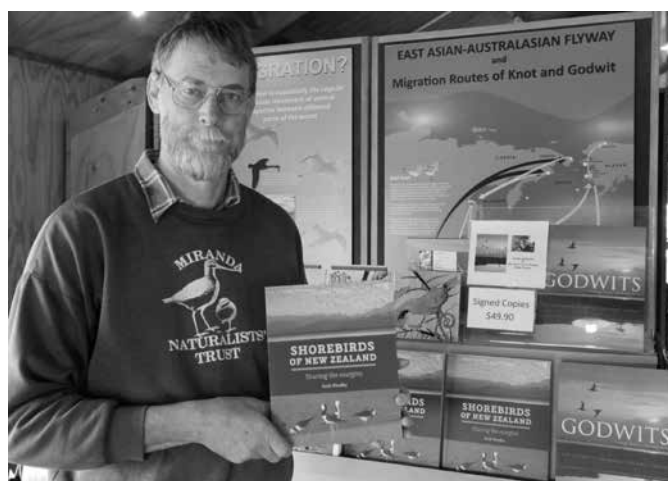
Photo / Keith Woodley



Kristelle Wi at Taipei Birdwatching Festival



Brian Gill speaking about cuckoos



Keith Woodley with his new book

Treasurer's report and accounts for 2012

Treasurer **Charles Gao** reports on a financial year which produced a significantly bigger financial surplus in spite of an increase in trust activities

This is the first full year I have looked after the Miranda Naturalist Trust's accounts.

First, to review the complete picture for the 2012 financial year, profit improved significantly to a \$ 29,000 surplus compared with \$ 3,500 last year.

- Shop trading increased by 36% over the previous year
- The Trust received donations of more than \$50,000 from some generous donors.
- Grants included funding from the ASB Community Trust, who for the third year running sponsored Kristelle to work with visitors to the hides over the summer months and to undertake the predator trapping programme, and the Waikato Regional Council, which made a grant towards the cost of interpretive signs at the shore.
- The above figures are based on the cash transactions through the Centre bank account so the net surplus figure will likely change a little once the auditing is finished.

Maria has taken greater responsibility for stocking the shop and those of you who have visited during the year will have noticed that in addition to the excellent birding and natural history books, Maria has increased the product range to include new product lines such as fabrics, sunscreen, cosmetics, honey and soft toys, gift cards with bird sounds, etc.

Annual subscriptions decreased by \$500 mostly as a result of the decreased membership in 2012.

The Field, Dotterel and Photography courses returned a surplus of \$3,300 which was an increase on \$2,300 in 2011.

The operating costs were up sharply reflecting an increase in activities undertaken during the 2012 year.

- Keith travelled to Indonesia to attend the East Asia Australasian Flyway Partnership meeting.



- Kristelle attended the Taipei Bird-watching Festival, though the organisers of the event reimbursed most of the cost later
- Printing of the Bar-tailed Godwit booklets at \$2,100, together with the translation of the report on the Yalu Jiang surveys at \$2,300, contributed significantly to the increased Publicity costs and Printing & Stationary cost.
- Predator Control cost \$1,300 as a result of Kristelle setting more traps and continuing the programme through the whole of the year.

- As the Centre moves to sell goods online, an e-Commerce online shop was built by Trudy Lane at a cost of \$2,800

There are a few differences between the accounts for 2012 and 2011 in the way I have allocated costs compared with how they were previously recorded by Ashley. I have recorded the monthly Internet connection fee under "Internet service fee" rather than "Computer repair and consumables". Previously the Auditor's fee was recorded under "Finance and Bank Charge" and I have put it to "Legal and Accounting"

I would like to express my thanks to the Centre's staff, Keith, Maria and Kristelle, and to all the volunteers who contribute their time and energy to keep the Centre running on a daily basis. Thanks are also due to our generous donors, the ASB Community Trust and the Waikato Regional Council, and to Alister Harlow, who has helped with applications for funding.

My personal gratitude goes to Gillian and Alister as they keep providing their help and advice for me to do the accounts.

With all these contributions, I can say confidently that MNT is in healthy shape financially.

AGENDA FOR 38th AGM OF THE MIRANDA NATURALISTS' TRUST

19 May 2013

Apologies for Absence

Minutes of the AGM held on 13 May 2012

Matters arising from the minutes

Chairperson's Report

Treasurer's Report

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

Subscriptions for the year ending 31 December 2014

General Business

The 38th annual general meeting of the Miranda Naturalists' Trust will be held at the Shorebird Centre at 10am on Sunday May 19



New products have boosted profits at the Shorebird Centre shop.

Income & Expenditure

2011	Income	2012	2011	Expenditure	2012
16,926	Subscriptions	16,338	8,275	Magazine-Publication	5,189
13,343	Donations	59,331	2,490	Magazine - Distribution	7,883
3,590	Schools/Lectures	2,285	4,682	Publicity	3,703
25,564	Surplus on shop trading	41,532	410	Bird Banding Expenses	1005
2,350	Profit on Field Course	3,378	0	Predator Control	1,304
31,982	Grants	4,500	0	Sibson Award Scholarship	0
21,621	Accommodation	19,000	3,206	Electricity	3,563
10,617	Interest Received	9,774	8,000	Building - running costs	6,197
4,800	Lease - rental	4,800	2,463	Plant and Machinery	0
			887	Furniture and Fittings	0
			907	Printing & Stationery	1,836
			6,360	Administration Expenses	11,037
			2,942	Bank Fees	3,565
			3,712	Insurance and Rates	3,732
			71,212	Wages	75,881
			211	ACC Levy	534
130,794	Total Income	160,939	115,757	Total Cash Expenses	125,430
0	Deficit for year	0	11,266	Depreciation	10,166
	transferred to accumulated funds		218	Loss on Sales	0
			3554	Surplus for year	25,344
				transferred to Accumulated Funds	

Balance Sheet

2011	Liabilities	2012	2011	Assets	20112
9,358	Life Membership Fund	8,422	191,849	Investments	
4,166	Advance Subscriptions	9,139	34,158	TSB Term Investment	199,493
12,987	Accounts Payable	8,771	226,008	TSB (Sibson Award)	35,699
-	GST Due	0		Total Investments	235,192
11,228	Unspent Grant - Muddy Feet	11,228	8,306	BNZ Current Account	9,134
0	Advance Field Course Fees	3,800	20,023	BNZ Savings Account	50,063
37,738	Total Liabilities	41,360	31,354	Stock on Hand	30,469
			1,409	Accnts Receivable/GST due	412
1,058,681	Accumulated Funds B/F	1,062,235	818,881	Property, Plant & Equipment	803,668
3,554	plus surplus 2012				
1,062,235	Total Accumulated Funds	1,087,579	1,099,973	Total Assets	1,128,938

The 38th annual general meeting of the Miranda Naturalists' Trust will be held at the Shorebird Centre at 10am on Sunday May 19

MINUTES OF THE 37th ANNUAL GENERAL MEETING OF THE MIRANDA NATURALISTS' TRUST HELD AT THE SHOREBIRD CENTRE ON SUNDAY 13 MAY 2012 AT 10.03am

PRESENT: The Chairperson (Gillian Vaughan), Secretary (Will Perry), and 66 others.

APOLOGIES: Carol Davies, Detlef Davies, Stuart Chambers, Alison Chambers, Nancy Payne, Amelia Geary, Martin Day, John Charteris, Brian Tyler, Judith Tyler, Charles Gao, Sue Reid, Gwenda Pulham, Betty Seddon, Jackie King, Laurie King. Apologies Accepted (Adrian Riegen/Eila Lawton).

MINUTES: The minutes of the 36th AGM held on 22 May 2011 were circulated as hard copies.

Corrections: Elections should read "Secretary – Will Perry elected unopposed" (not Treasurer). Lance Fielder (not Fielding) elected as Auditor

With these corrections the minutes were approved as a correct record.

MATTERS ARISING FROM THE MINUTES:

Charles Gao was subsequently appointed by MNT Council as Treasurer.

CHAIRPERSON'S REPORT:

The report from the chair was circulated and Gillian spoke to the important issues mentioned.

Building Plans were still being discussed by MNT Council, who want to be sure that we develop an appropriate plan for the right building. Some parts of the building are showing their age. Council is keen to balance getting it right vs getting it done.

Adrian Riegen and John Rowe have recently done maintenance work on the building. Eila Lawton and Warwick Buckman have worked on the grounds. New hide completed. New walkways done. Signage to follow. Wendy Hare has been working on proposals to enhance the track for disabled access.

The Shorebird Centre team of Keith, Maria and Kris are doing a fantastic job. The volunteer workers at the Shorebird Centre are a vital supplement to the team.

Len Taylor and Keith Thompson are both resigning from MNT Council. However, they are willing to continue as Membership Secretary (Len) and Environmental/Education Consultant (Keith).

Charles Gao has joined us as Treasurer and we are lucky to have his skills in a demanding role.

Several changes in local politics - the Centre is now part of Hauraki District Council.

Hauraki DC have installed bollards and introduced stricter controls at the camper van site.

The Trust has been involved in opposition to mangrove clearance and channel dredging at Mangawhai Harbour. Submissions awaiting decision by Council. The mangrove issue requires a balanced view – MNT's position is to consider the evidence and provide solutions that protect the environment.

Internationally we continue our involvement with East Asian/Australasian Flyway issues. MNT has submitted a report of the 10 years of shorebird survey work at Yalu Jiang from 2001 to 2010 – currently with the staff of the Yalu Jiang reserve for checking and approval.

MNT remains heavily reliant on donations and these are gratefully acknowledged.

The chairperson's report was received (Gillian Vaughan/David Lawrie).

Tansy Bliss asked whether MNT submitted applications for grants. Gillian replied that we do submit grant applications and that some are successful.

Eila Lawton asked whether it was possible to purchase books on line from MNT. Gillian replied that Trudy Lane has been working on this and we are getting close. Also, Emma Pearson has set up a Facebook page for Miranda. People are encouraged to "like" it.

Bev Woolley asked whether MNT has a Twitter account. Gillian replied that it is the next job to be done after setting up Facebook.

Eila Lawton proposed a vote of thanks to Len Taylor and Keith Thompson as outgoing Council members.

TREASURER'S REPORT: Charles Gao's written report was circulated at the meeting. In the absence of the Treasurer, Gillian Vaughan spoke to the report.

She commented that Charles had done well to take on a demanding role and that Ashley Reid had made it appear much easier than it is.

Shop sales were down and donations were down although both picked up later in the year. Education income is also down – school visits seem to be less frequent than in the past. Accommodation income is steady. Income from grants has increased. Income from subscriptions appeared to have increased but this was an artifact associated with the timing of receipt of subscriptions.

Expenses have remained steady. Wages have increased due to a higher utilization of the two assistant managers.

Charles had commented in his report that the accounts are with the auditor and that audited accounts were not available in time for the AGM.

Bev Woolley commented that interest does not correspond with the increase in the Investment Account. Gillian replied that it needs to be adjusted. Magazine costs also seem to have increased but this is also related to timing of the magazine-related expenses across the financial years.

The AGM authorized (David Lawrie/John Rowe) MNT Council to adopt the audited accounts and print them in MNT News/publish them on the website and advise the membership.

ELECTION OF OFFICERS:

Secretary – Will Perry elected unopposed.

Treasurer – Charles Gao elected unopposed.

There were 8 nominations for Council, namely David Lawrie, Eila Lawton, Adrian Riegen, Gillian Vaughan, Phil Hammond, Wendy Hare, Estella Lee, Emma Pearson, and these were declared elected

Tansy Bliss was nominated from the floor. Seconded David Lawrie. Elected.

This left a gap of one person on the new MNT Council.

Auditor: Council will approach Lance Fielder of Gyde Wansbone to see whether he is prepared to continue.

SUBSCRIPTIONS: Proposed (David Lawrie / Eila Lawton) that subs remain unchanged for 2013. CARRIED.

GENERAL BUSINESS:

Flyway Partnership Meeting in Indonesia – Keith Woodley reported that New Zealand, Mongolia and Rio Tinto have now joined the Flyway Partnership. Rio Tinto are funding a visitor centre on the Bohai Sea. Only 70 – 80 pairs of Spoonbilled Sandpiper remain in the world. Motion to IUC in Korea in September. Keith wants to drum up support for our interests in North Korea.

Adrian Riegen commented on North Korea. We seek donations to progress with our shorebird conservation activity in North Korea (about \$18,000 per annum).

David Lawrie reported advocacy activity to support the Chairperson's report. MNT is acquiring some credibility and authority in New Zealand.

Eila Lawton declared additional support for the Chairperson. Gillian Vaughan has been Chairperson and editor of MNT News and has offered support for the new Treasurer. Gillian has made a significant contribution to the organization.

Jim Eagles will take over as magazine editor in August 2012.

Tony – Auckland Tourism and the Ministry of Economic Development. "Welcome to the Godwits Day" proposed.

The meeting closed at 11.02am



Shorebirds and port reclamation can co-exist . . . at least for a while.

Photo / Liu Xiaoyang

Looking on the bright side in China

Doctoral student **Jimmy Choi** reports on the research he is doing at Yalu Jiang Nature Reserve – with the aid of a Sibson Award - into what he calls “Conservation with Chinese characteristics”

The remarkable journeys of migratory birds have long inspired humans. These days they also bring together people from different countries backgrounds to strive towards common goals of greater understanding and improved conservation of the birds. The few relatively well-protected coastal wetlands in China are good examples of how such collaboration has improved our knowledge on migratory birds and helped in conserving their habitats.

The Yellow Sea lies in the heart of the East-Asian Australasian Flyway. The extensive coastal intertidal flats, especially those near estuaries, are rich in nutrients and invertebrates, providing important food sources for migratory shorebirds to refuel during their annual journeys between non-breeding and breeding grounds.

Lying at the southernmost of the Yellow Sea is the Chongming Dongtan National Nature Reserve in Shanghai, located at the Yangtze estuary. Due to the high demand for land in Shanghai, Chongming



Dongtan has faced enormous reclamation pressure and has a long history of reclamation. Four major reclamation projects were carried out within 12 years, starting in 1990, resulting in the loss of almost half of the intertidal flat, leaving 96 km² of intertidal flat to shorebirds.

But there are always two sides to everything. The proximity to Shanghai which created that pressure has also resulted in Chong-

ming Dongtan receiving more attention than other coastal wetlands in China. Shorebirds research there started in the early 80s and it has become the most studied shorebird site in China.

Since the 90s a series of shorebirds banding and survey workshops has been held with the assistance from the Australasian Wader Studies Group. The collaboration with foreign experts not only laid a solid foundation for shorebird research at Chongming Dongtan but also helped the local people to recognize the global significance of the reserve.

Chongming Dongtan was promoted to national nature reserve status in 2005 resulting in a much stricter management regime than before. In 2006, more than 7000 shorebirds were banded and flagged there, among the largest bandings of shorebirds at a single site in the world in that year.

It had previously been suggested

that for some shorebirds the reserve mainly serves as an emergency stopover during bad weather or for individuals in poor condition. This was confirmed last year when researchers found that radio-tagged Great Knots stopped there for an average of only two days during northward migration.

At the northern end of the Yellow Sea lies another coastal wetland that is popular with shorebirds, the Yalu Jiang National Nature Reserve, located close to the China–North Korea border, which was listed as a national nature reserve in 1997.

Because of its remoteness it has been subject to less development pressure but, on the other hand, less is known about the shorebirds compared to Chongming Dongtang. This changed a few years ago, however, when the old port further up stream had to be abandoned due to changes in water flow after extensive reclamation and protection works and a new port had to be developed.

The reserve at Yalu Jiang has an intertidal area of 242 km² which supports more than 200,000 shorebirds during their northward migration. Little was known about these birds until the Australasian Wader Studies Group, Miranda Naturalists' Trust and reserve staff began annual surveys in 1999.

Then a Memorandum of Understanding was signed between the Miranda Naturalists' Trust and the reserve, laying out a framework for increased cooperation on shorebird conservation, making it the first Chinese national nature reserve to have a sister site relationship with a foreign protected area. As at Chongming Dongtan, this collaboration with foreign experts laid the foundation for shorebird research and helped the local people to recognize the global significance of the area.

Using the survey results from the collaborative work between nature reserve staff, Miranda Naturalists' Trust and the Australasian Wader Studies Group as background information, our research work at Yalujiang in the last three years indicated an 18 per cent decline in Great Knots (compared to the 1999's count) and a 13 per cent decrease in Bar-tailed Godwit numbers (compared to 2004's count) at Yalujiang during the peak northward migration period.

It has also confirmed that the reserve is the most important stopover site for both Bar-tailed Godwits and Great Knots during northward migration. The importance to other species will be clearer once the survey data is fully analyzed.

Results from modelling, sightings of individually-marked birds and radio tracking show the birds stop at Yalu Jiang a lot longer than at Chongming Dongtan, indicating its importance for shorebirds to refuel and prepare for their next leg.

Finally, preliminary analysis of the sighting data indicates that 56 per cent of those Bar-tailed Godwits that were colour-banded in New Zealand ended up at YLJ during northward migration.

Habitat loss through coastal wetlands reclamation, the process of creating new land from the intertidal flats, is regarded as one of the main reasons for declining shorebird populations along the East-Asian Australasian Flyway.

Probably driven by the huge demand for food, historical reclamation along the Chinese coast has converted extensive areas of intertidal flats into agricultural croplands, aquaculture ponds and salt pans. This has created a coastal landscape dominated by saltmarshes and bare tidal flats on one side of a seawall, with agricultural croplands, aquaculture ponds and

salt pans on the other. This is different to what happens in Europe and America, where agricultural croplands, salt pans, urban and industrial developments, but not aquaculture ponds, are found inside the seawall.

The Chinese combination of agricultural croplands, aquaculture ponds and salt pans can act as an artificial wetland able to be used by certain waterbirds species, although of course some of the ecological functions of natural wetlands remain irreplaceable.

In Yalu Jiang more than 20,000 birds have been recorded roosting in a recently-dried aquaculture pond, and some shorebirds even fed vigorously when aquaculture ponds were recently drained for harvesting. More studies are urgently needed to understand how shorebirds may use the aquaculture ponds so management recommendations can be made to maximize the benefits for both shorebirds and ponds owners.

Some may wonder why there is such a high demand for agricultural and aquaculture land in China. If we divide the total agricultural area by the population size, each person in New Zealand is supported by 3ha of agricultural land, while each person in China, is supported by merely 0.4ha. Such a comparison may not be very meaningful but it does point to why there is such huge pressure on productive land.

The coastal landscape is exploited thoroughly to feed the millions of mouths in China. At Yalu Jiang National Nature Reserve, the land 2-10km (and sometimes even further) inside the seawall is mostly agricultural croplands, though unlike further south where land can be farmed continuously to yield two harvests per year, in Yalu Jiang there is only one harvest per year due to the cold winter.

The 2km strip just inside the



ANCIENT AND MODERN:
Traditional fishing continues under the shadow of Yalu Jiang's modern port and alongside the thousands of migratory birds.
Photos / Liu Xiaoyang, Jimmy Choi, Phil Battley

seawall is dominated by aquaculture ponds that rear fish, shrimps, crabs, shellfish, jellyfish and sea cucumber.

The intertidal flats outside the seawall are also a treasure to fishermen. The area 0-2km outside the seawall is commonly used for shellfish farming. Fishermen cultivating shellfish have only to plant their seedlings in spring, allow the nutrients brought by tide water to feed them, and then return a year later for the harvest.

Across the area 5km away from the seawall lies a long row of fishnets, 1-2m tall, running parallel to the seawall and stopped only by channels. Fishes and crabs that move with the tidal waters are caught by the nets when the water retreats. The area 30km outside the seawall, where the water level is 10m, 20m or 30m deep, hosts another shellfish farm for different species.

This is how the coastal area is being exploited to provide food for people and it's likely that similar land use patterns are found in other sites along the East China coast.

Despite the seemingly intensive use of the coastal area at Yalu Jiang the shorebirds seem to be capable of finding enough food to refuel for their migration journey. One of the main food sources for godwits and Great Knots calling there is a small shellfish species that can grow up to 25mm. This prey species was very abundant during my study and it seemed to be the most popular food source for the shorebirds.

Interestingly, this shellfish was exploited heavily as shrimp feed during the 80s, but demand dropped significantly following a disease outbreak that caused a collapse in the local shrimp industry in 1993. My study indicated that this shellfish has thrived since, creating a healthy stock of food for migratory shorebirds. Since this is the same species that the Red


Knots feed on heavily at Bohai Bay it seems a pity they don't join the Bar-tailed Godwits and Great Knots at Yalu Jiang.

Some may wonder why there doesn't seem to be any regulation on human activities in Yalu Jiang National Nature Reserve. This points to one of the biggest conservation problems in China: ambiguous land tenure in protected areas.

The local government owns the land within the reserve and is able to lease the tidal flats out to fishermen. In other words, the reserve does not have complete control over how its land is managed. Reserve staff even had to negotiate with local government officials and fishermen in order to grant my research team an access to the intertidal flat to conduct scientific research. Perhaps this is an example of conservation with Chinese characteristics.

The future for shorebirds at Yalu Jiang may not look secure with the increasing amount of development pressure, pollution from the aquaculture ponds and over-exploitation of natural resources.

Nonetheless, there are encouraging signs. Laws relating to protected area are being revised and updated; the economic values of ecosystem services have become more valued; local people are increasingly interested in the shorebirds at Yalu Jiang and are coming to realize its international significance.

In short, there is still a lot to be done and the contribution by the Miranda Naturalists' Trust will certainly remain an important part to safe guard the shorebirds habitat at Yalu Jiang 

Jimmy Choi's doctoral thesis topic is Staging Ecology of Bar-tailed Godwits in Yalu Jiang, China. It is being supervised by Dr Phil Battley, Associate Professor Murray Potter at Massey University and Dr Zhijun Ma at Fudan University.

Looking for information about great grandma

Dear Miranda Trust

Hi, My name is Kaiya Edwards. I'm 10 years old and I go to Dunedin North Intermediate. I'm from Dunedin.

I'm doing a school project about my great grandma, Sylvia Reed. I was hoping you could give me some information about her. I know she helped with the early days of the Miranda trust and she died very young (67). Do you have any photos of her? If possible could you send copies of the photos.

If you have any more information could you send that as well. If you don't then that's fine. Here's \$20 that I've been saving up that I'd like to donate to the Miranda trust.

I heard that Miranda is a great place to stay and visit. I hope I can go there one day and listen to the different types of birds, as well as watch the birds through my great grandma's binoculars.

Yours sincerely

Kaiya Edwards

Kaiya has been sent a package of information including a copy of *The Story of the Miranda Trust* which includes a photo of Sylvia Reed. Anyone with further details or photos can send it to Kaiya at clair@georgestreet.school.nz or 7 Arnold St, North East Valley,

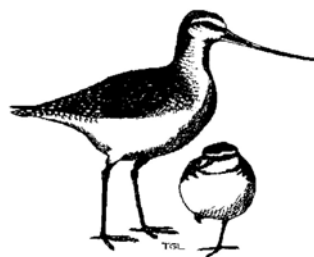
Caring for the land

Council member Trudy Lane – who administers the Findlay Reserve area on behalf of the Allan Lane Family Trust which owns the land – is looking into options for rehabilitating the family farm land further inland which forms part of the catchment for the local area.

Trudy is in the process of meeting with neighbouring landowners to discuss the options for riparian planting for the Pukorokoro Stream and its tributaries as it flows to the coast.

One possibility under investigation is that of forming a Landcare community care group, which should make it easier to get assistance from organisations like the NZ Landcare Trust and Waikato Regional Council.

MIRANDA NATURALISTS' TRUST



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Miranda News

Miranda Naturalists' Trust publishes *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 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. 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 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 MNT News a year, discounts on accommodation, invitations to events and the opportunity to join in decisionmaking through the annual meeting.

Bequests

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

Want to be involved?

Friends of 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 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 4. 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 great photo send it in to *Miranda News*. If you want to discuss your ideas contact Jim Eagles at eagles@clear.net.nz.

Help in the Miranda 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.

