

# Wet & Wild

## RAMSAR Celebrates its 40th year

**What were you doing on Tuesday 2nd of February, 1971? And what were you wearing??**

Chances are, some of you weren't yet born. Others might have been dreading the end of the school holidays, cleaning the Kombi, or getting excited about the pending Apollo 14 moon landing.

Probably few kiwis were aware that in a resort city on the Caspian Sea that day, the world's first, and so far only, international treaty related to a specific ecosystem type was being finalised.

The grandly titled 'Convention on Wetlands of International Importance especially as Waterfowl Habitat' was signed by 18 nations in the northern Iranian town of Ramsar the next day.

Given the tongue-twisting mouthful of the full title, it's not surprising that the convention has become known as simply, the Ramsar Convention.

The need for international co-operation on wetland protection was initially driven by the migratory habits of many globe-trotting wetland birds that need the security of their feeding and breeding grounds, and stop-over sites, to complete their life-cycle. While the original focus was very much 'for the birds', the scope was quickly broadened, seeking to maintain the ecological character of internationally important wetlands, and promote sustainable use of all wetlands.

The Convention has three core 'pillars';

- \* to designate suitable wetlands for the List of Wetlands of International Importance ("Ramsar List") and ensure their effective management;

- \* to work towards the wise use of all their wetlands through national land-use planning, appropriate policies and legislation, management actions, and public education; and

- \* to cooperate internationally concerning transboundary wetlands, shared wetland systems, shared species, and development projects that may affect wetlands

The Treaty came into force in 1974 (once a requisite 7 nations had ratified it), and New



Zealand signed up in December 1976, four months after registering Waituna Lagoon as our first wetland of international significance. We have since added another 5 sites, and expanded the area of the first one, the six sites covering a total surface area of 55,112 hectares.

In the 40 years since its inception, 160 nations (more than half the world's sovereign states) have signed the convention. Worldwide, 1896 wetlands have been added to the List of Wetlands of International Importance, covering 185,467,049 hectares (around 1% of the world's land surface area).

Every February we celebrate World Wetlands Day to mark the date that the convention was finalised. Next year is the 40th anniversary, and several organisations with wetland interests have mooted the idea of a year of celebrations to really bring wetlands to the public attention. See our list of 40 ideas in this issue of Wet and Wild.

Over the next few issues of Wet and Wild look out for more articles about the convention and our Ramsar sites.

### Ramsar trivia - test your knowledge

1. What was the first nation to have a wetland registered on the Ramsar list?
2. What nation has the most Ramsar sites?
3. What nation has the greatest area of wetland on the Ramsar list?

4. Where is the world's southernmost Ramsar site?

5. How many Ramsar sites does NZ currently have?

6. What is NZ's most recent Ramsar list addition, and when was it added?

7. Which NZ Ramsar site is further north, Farewell Spit or Manawatu Estuary?

*Article continues over the page.*

**Wet & Wild** is the National Wetland Trust's quarterly publication. We seek contributions, though published at the editor's discretion.

Each issue will be available on:

[www.wetlandtrust.org.nz](http://www.wetlandtrust.org.nz) within two months of publication, where they can be downloaded as pdfs.

Membership forms can also be downloaded from the website.

A grateful thanks to Mighty River Power for sponsoring the National Wetland Trust newsletter.

Submit articles to the editor Shonagh Lindsay at: [shonagh.lindsay@xtra.co.nz](mailto:shonagh.lindsay@xtra.co.nz) Contact the NWT on [www.wetlandtrust.org.nz](http://www.wetlandtrust.org.nz)



8. Which has more Ramsar sites, the North Island or South Island of NZ?
9. How many NZ Ramsar sites have an estuarine component?
10. Can lakes be Ramsar sites?

*(Answers are on Page 11)*

## 40 ideas to celebrate 40 years

Last month representatives of the National Wetland Trust, Department of Conservation, Forest and Bird, Fish and Game and regional and city councils came together to toss about some ideas on how to celebrate the 40th anniversary of the Ramsar Convention.

Before we knew it we had a list of about 40 suggestions! 40? How appropriate.

Let us know what you think of these, and if you have any other suggestions. Contact karen.denyer@wetlandtrust.org.nz or jsimmons@doc.govt.nz

### National

1. Establish a National Wetlands Committee
2. Reinstate National Wetland (Ramsar) Awards
3. Demystifying Ramsar - articles, presentations, link to NZ Iranian community/
4. Designate a new Ramsar site, especially a forested one to fit the WWD theme of Forests and Wetlands and International Year of Forests.
5. Organise national Ramsar workshops/roadshow
6. Get wetlands accepted as a key component of meeting Kyoto Agreement (carbon sinks)

### Events and activities

7. Photo competition. Feature the best 40.
8. Different month have a different focus e.g. urban, rural, coastal, duck shooting, fishing etc with an associated calendar promoting the monthly theme, events and activities.
9. Take advantage of Rugby World Cup and encourage visitors to buy a plant, offset their emissions and leave a legacy in NZ - where are good wetland planting sites near rugby games venues?
10. Celebrate existing Ramsar sites on their date of ratification e.g. Firth of Thames 29th January, Manawatu Estuary 25th July, Farewell Spit and Awarua Wetlands 13th August, Kopouatai and Whangamarino 4 December.
11. Wetland fashion show - wearable art.

12. Use other weeks/days to promote wetlands e.g. Sea Week, Arbor Day
13. Encourage people to celebrate their local wetland - what's special in your area?
14. Waitangi Day link to WWD - also Valentines Day - "Love your wetland".
15. Utilising captive facilities - encourage zoos, Mt Bruce etc to promote wetlands to their visitors.

### Promotional material

16. Reprint the National Wetland Trust (NWT) 'Wet and Wild Places' book to include Manawatu Estuary and Awarua extension.
17. Further work on NWT wetland directory - aim for a region per month to finish it.
18. Develop a catchy wetland jingle.
19. Poster 'what's in a wetland'
20. Take away products - magnet, mascot
21. Highlight urban wetlands close to people.
22. Make use of social networking websites e.g. Facebook (NWT has one)
23. Meet the Locals wetland theme - get onto TV.
24. Promote unique NZ species associated with wetlands.
25. Use of wetland images in promotional material e.g. background setting for clothing promotional catalogues.
26. Wetland champions - celebrities to wave the flag for wetlands
27. Make wetlands 'cool' for kids e.g. Shrek lives in a swamp. Is there potential to maximise this association?

### Educational

28. Develop wetland topics for Royal Society teacher fellowships.
29. School u-tube clips. Work through EnviroSchools.
30. School trips and talks to schools.

### Media

31. Article in popular magazines, e.g. Air NZ in-flight magazine, maybe info pack on plane. Link to Air NZ Environmental Trust.
32. Media release - newspaper supplements e.g. NIE

### Cultural

33. Make connection to Matariki and rongoa.
34. Kapa haka song relating to wetlands (for national championships).

35. Speech competition - Manu korero
36. Maori TV opportunities.
37. Kupu Maori (Maori words)
38. Kingitangi coronation - name a plant after the Maori King.
39. Indigenous international link - who is visiting NZ in 2011?

### Target 40

40. Think of ways to link wetlands and 40, e.g.
    - \* Promote '40' targets to councils e.g. top 40 wetlands, 40 km of fencing etc. - Councils celebrate achievements.
    - \* 40 reasons to love your wetlands
    - \* 40 ways to leave your wetland...in a better state
    - \* 40 wetlands to visit
    - \* 40 wetland cadets
    - \* 40 years of wetland protection in NZ - mini SOE, quotes and stories to illustrate, glossy coffee table style, media launch.
    - \* 40 things organisations can do to celebrate WWD/40th Ramsar Anniversary (Local Govt, DOC, F & B, F & G, NWT, NGO's, schools).
- It was also suggested that we need a catchy slogan that all agencies/wetland supporters use. Help us think of some ideas....here's a few starters.
- \* Wetlands - can't live without them
  - \* Wetlands - get into them!
  - \* Get wet and wild
  - \* Wake up to wetlands
  - \* Wetlands - something for everyone

### Ramsar 2011 - how will you celebrate?

## E3 Call Home

E3 Call Home, the latest book by Janet Hunt, author of Wetlands of New Zealand: A Bitter-Sweet Story, is the true story of two godwits, E3 and E7. In 2007 they were tagged with satellite transmitters by scientists who wanted to know where they flew when they left New Zealand each autumn. E7 became famous with her photo in all the papers. But what happened to E3? Published by Random House New Zealand it retails for NZ\$24.99 and has a target age 7+



# Give us your best shot! Share your wetland photos with the Trust and go in the draw for some great prizes!

*It's true, a picture is worth a thousand words. One of the best ways we can get other kiwis loving New Zealand's wetlands as much as we do is to share their beauty.*

The National Wetland Trust is always on the hunt for new exciting, evocative, beautiful, or fun photos of wetlands, people enjoying or restoring wetlands, or the weird and wonderful critters that live in wetlands. Be it lake, bog, swamp, estuary, geothermal pool, alpine tarn – if it's wet and wild, and 100% pure NZ it counts!

Everyone who sends in a photo or photos will go into the draw for a range of rewards, including a year's subscription to NZ Geographic magazine, a copy of the fabulous new Wetland Restoration Handbook, and two annual subscriptions to the National Wetland Trust. All photographs submitted must be the property of the submitter, and be available for non-exclusive promotional use by the Trust upon request.

Potential uses include presentations, wetland educational material, magazine articles, national wetland centre displays, and web illustrations. All photos will be credited to the photographer when used, and only low resolution versions



will be used on the web. Send us a cd or dvd of images you are happy for the Trust to use for wetland promotion. Include your name and contact details, and ensure the photos are labelled with location/species etc. Remember, this is a great way you can help us share the beauty of our rare and precious wetlands with

the rest of New Zealand, and encourage others to care for them as much as we do.

**Post disks to Karen Denyer, 27 Grey St, Cambridge 3434 by 3 December 2010. Prize winners announced in our next issue of Wet and Wild.**

## Waikawa River Restoration Project

Waikawa River Restoration Project is a one-year DOC Biodiversity Condition Fund project situated in the south, eastern corner of Southland adjoining the Catlins area. The river flows into the Waikawa Harbour, a tidal estuary that empties into Porpoise Bay at the eastern end of Foveaux Strait.

The river is notable in the region for having retained its natural bed and meandering course, with a remarkably high abundance of remnant lowland kowhai-ribbonwood forest still being present along its margins. Many threatened plant species are found in forest remnants on private land in the valley with farmers actively protecting these areas.

The river itself is rich in fish life, supporting good populations of lamprey (kanakana), brown trout, longfin eel (tuna), giant kokopu, redfin bully, common bullies and koura. The Waikawa Estuary is well used by locals for collecting shellfish and is designated as a Wetland of National Importance to fisheries for the nursery habitat it provides for flounder,



giant kokopu, eels and lamprey among others. The Estuary is also an important breeding ground for the threatened Hector's Dolphin. The estuary contains breeding populations of fernbirds and bitterns and provides feeding grounds for an abundance of godwits, white-faced herons, wrybills, pied stilts, spur-winged plovers and others.

Find out more on the NZ Landcare Trust website, [www.landcare.org.nz/](http://www.landcare.org.nz/) search for 'Waikawa'.

**Article by Janet Gregory, NZ Landcare Trust, South. Image of the Waikawa River as it enters the Waikawa Harbour by Barry Robertson, Wriggle Consulting**

# NWT News

## Facebook page

The NWT has a Facebook page - sign up as a friend and send the link to your friends. Link via our Latest Updates page on [www.wetlandtrust.org.nz](http://www.wetlandtrust.org.nz)

## Wetland trails

The Whangamarino and Waikare trail has been enhanced with an information board on the history and future of Lake Waikare. Sponsored by Waikato District Council, Environment Waikato and Banrock Station, the sign has been installed in two places along the route, east of Te Kauwhata and near the Lake Waikare outlet and fish pass. The Department of Conservation has also installed a sign in the Te Kauwhata Village Green showcasing Whangamarino Wetland and the Arawai Kakariki project.

## MOU's pending

At the NWT AGM (September 8), the Trust signed MOU's with Environment Waikato and Waipa District Council, to formalise our

relationships with these key agencies. The Trust is proposing to relocate its planned National Wetland Centre to land administered by Waipa District Council and the agreement will outline our respective expectations and mutual offerings. An MOU with Environment Waikato will formalise a long running relationship in a region recognised as a wetland stronghold. The Trust is keen to form other relationships with key wetlands stakeholders around the country.

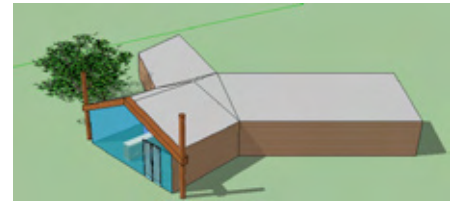
## National Wetland Centre update

As reported in the last issue, 7th form graphics student Ryan Mearns has been designing building concepts for the National Wetland Centre. Here are some of his ideas.

The Trustees were very impressed with the range of designs Ryan came up with, and the thought he put into not only eco-friendly products and concepts, but visually appealing design as well. A favourite was the upturned waka design, which sits well in the landscape, has a strong NZ design (reminiscent of both a whare and a waka) and makes good use of space and eco-concepts.

All of Ryan's designs broadly reflected the brief, though a few would need a bit of tweaking, e.g. to provide for wheelchair access to an upper level;

1. Distinctively New Zealand in character.
2. Eco-friendly and energy efficient.
3. Integrated with the surrounding landscape design.
4. Visually appealing and creative - to draw people in and hold their attention.
5. Accessible to all
6. Includes a reception area, two offices, small theatre (30 people), gallery/exhibition hall.



## An Evening of Wine and Wetlands

***Wow, probably our biggest AGM crowd yet! Over 100 people attended our Wine and Wetlands evening to see our latest plans for the National Wetland Centre and hear Paul Champion's excellent talk on the Waikato peat lakes.***

A poster display set up in the Waipa District Council Chambers outlined the proposal - a handy resource for promoting the Trust and its plans, let us know if you would like a set to display (5 posters).

Sarah Beadel of Wildlands Consultants also brought a great poster showing her concept for the estuary themed garden - a meandering boardwalk across a permanently tide-out 'mudflat' with planted oioi, flax, marsh ribbonwood and coastal tree daisy. Wildlands donated staff time and covered the cost of posters, thanks Sarah!

Attendees were invited to write down their ideas of features we could provide at the centre. The best idea (from Bex Eivers) was a large mobile of silhouette-style wetland birds suspended on invisible wires above the wetland centre building that is visible from the road. Bex got 100 chocolate fish for her suggestion.

Our plans to build at Lake Serpentine (15 mins south of Hamilton) really firmed up when

Deputy Chair Gordon Stephenson signed an MOU with the Mayor of Waipa District Council, Alan Livingston. The council has offered reserve land on which to build the centre. We also signed an MOU with Environment Waikato Chair, Peter Buckley, agreeing to support each other with our common objectives to increase awareness and protection of wetlands.

NWT Chair Tony Roxburgh reminded us of some major gains over the year, including significantly beefed up reference to wetlands recommended by the Board of Inquiry for the NPS on Freshwater, and the \$3.6 M for wetland research from the Foundation for Science and Technology.

Three new Trustees were appointed, Kristy Hall (Boffa Miskell, Auckland), Sally Chesterfield (DoC, Southland), and returning Trustee Philippe Gerbeaux (DoC, Canterbury).

Thanks to all who helped make it a very successful night.

See the presentations and Chairs report on our Latest Updates page.

Other ideas for the wetland centre from attendees.

\* Tame long-finned eels to feed

\* Kayak trail using boats kept at the lake to keep aquatic weeds out

\* Computer generated footage of changes in the Waikato River course over geological time

\* Use maimai theme for buildings

\* Maori interpretation throughout

\* Display stand at airport to direct people to the centre

\* Large model (visible from the highway) of a swamp creature (like Nessie)

\* Have the best coffee in the Waikato (maybe we can import some civet cats!)

\* Underwater window on part of the lake

\* Start with bird hides

\* Guided activities, e.g. birdwatching, kayaking, plant id walks, planting.

\* Learning outside the classroom (LEOTC) schools programme for funding and hands-on activities for kids

\* Breeding programme for species

\* Raupo thatch roof over some walkways

\* Snorkel trail

\* Make building underground, to retain natural beauty

\* Glass bottom punt



## Wetlands to Visit - Lake Otuhei, North-west Nelson

*The drive to Lake Otuhei offers a delicious wetland smorgasbord in its own right.*

This dune lake, set among stunning limestone bluffs, is almost the end of the road. To reach it requires a delightful journey from Collingwood, almost to Farewell Spit, but turning up the Pakawau Bush road to wind around the stunning Whanganui inlet where towering podocarp forest hugs the slopes right to the waters edge. The head of the inlet is the Mangarakau wetland - a worthy destination in its own right, and great place to spend the night in the Friends of Mangarakau house overlooking a vista of swamps and ponds frequented by bittern and fernbird.

The road to the lake continues out to the spectacular west coast at Paturau River, then turns south towards Anatori on Cowan Road. A walking route to the lake starts near the road gate on the bridge over Sandhills Creek (before you get to Anatori).

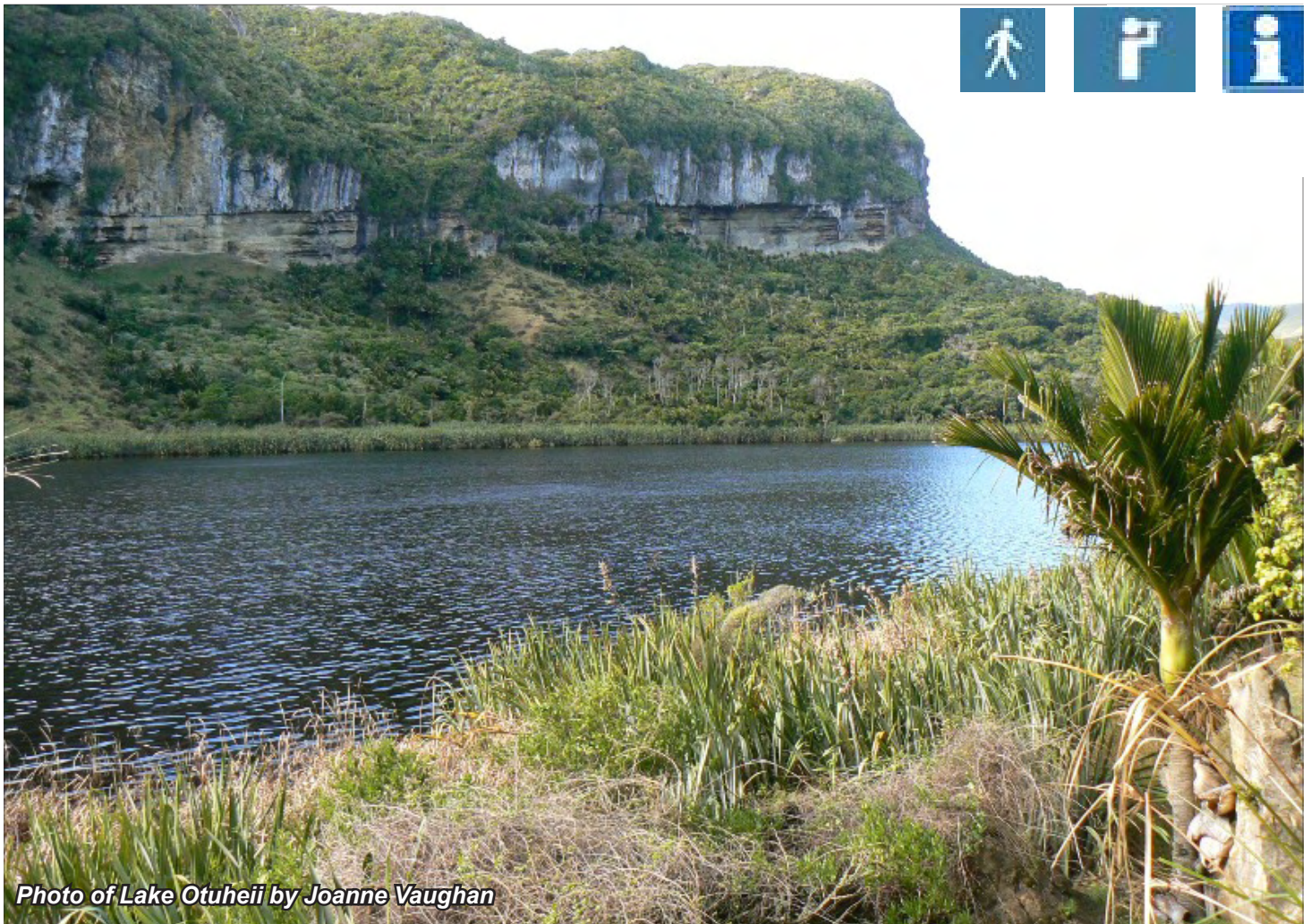
An information board introduces the lake, accessed via a newly opened 30 min walkway (a marked route over privately owned farmland, rough in places). Walk another 15 mins around the lake and you will reach a sandy beach. Kayakers can paddle up the creek to the lake, which hosts giant kokopu and long-finned eel.

Take your time to get to this lake. For this wetland, the journey is part of the adventure -

but do plan your trip carefully, as the walking track is closed for lambing between 1 August and 30 September.

See the 'Visiting Wetlands' page on our website for more wetlands to visit.

The NWT is developing an on-line directory of wetlands to visit and will feature some in each newsletter. We recently completed the Tasman-Marlborough region thanks to sponsorship from Tasman District Council. Northland has been sponsored by Northland Regional Council and will be completed shortly. **If you know of wetlands we could include, or potential sponsor for your region contact Karen. denyer@wetlandtrust.org.nz**



*Photo of Lake Otuhei by Joanne Vaughan*



### Wetland International News

To see the new 'pondzone' at the **London Wetland Centre**, please visit the link below, zoom out on the google map and click on the second symbol from the left. The zone has remote controlled underwater camera, displayed on big screen, a new 'sewer' exhibit showing what goes down the drains, and an

interactive projection pond game.

[http://www.wlbsitevisit.org/wetland\\_profile/3/#](http://www.wlbsitevisit.org/wetland_profile/3/#)

#### Wildfowl & Wetlands Trust (WWT)

This year, around 20 Slimbridge-reared cranes will be released into the wild on the Somerset Levels and Moors as part of The Great Crane Project, a partnership between WWT, RSPB and Pensthorpe Conservation Trust, with major

funding from Viridor Credits Environmental Company. Transported as eggs from flourishing populations in Germany, the birds are being expertly hand-reared by costumed crane 'parents' at Slimbridge's backstage Crane School 2010.

Follow their progress over the coming weeks at [www.wwt.org.uk/craneschool2010](http://www.wwt.org.uk/craneschool2010)



# PEKAPEKA - a champion wetland

*Thinking wetland restoration...*

***It's surprising what can be achieved with commitment and a whole lot of community support!***

The Pekapeka wetland restoration in Hawke's Bay, 10km south of Hastings, has been active for over a decade now and the efforts of many to create a champion wetland are about to be rewarded with the opening of the Pekapeka Interpretation Site in October this year.

The Hawkes Bay Regional Council began restoring the wetland in the late 1990's with the first five year management plan implemented in 1998. One of the first tasks was to tackle the willow problem which had infested over 75% of the 98 hectare wetland.

Next on the list was to ring fence the perimeter of the wetland and acquire ownership or lease of any areas that were not already in council ownership. Initially the council owned 50% of the wetland for flood control and drainage purposes, this ownership has now been increased to 90% with the balance under lease or Maori tenure. A weir was installed in the central section of the wetland in 2005 to better manage water levels and an animal pest control program implemented in 2008.

Since the beginning, it was always a vision to develop a section of the wetland for education and public enjoyment. While split management objectives for a wetland restoration (ecological enhancement and public use) can be seen as a contradiction, in this case it is seen as an essential part of the restoration process in terms of maintaining long term support and fully realizing the educational (awareness) value of the project.

Opportunities have been utilized wherever present to facilitate public inclusion from iwi, schools, rotary clubs, community groups, funding organisations and government agencies and authorities. One of the biggest challenges (apart from the physical like controlling plant pests!!) was identifying all the stakeholders and then establishing common ground from which to progress. It is fair to say not all came on board but the majority did. Through this support and with the assistance of a specific fund raising agency the council was successful in an application to the New Zealand Grants Board Environment & Heritage fund for significant funding to develop an interpretation site, boardwalk and pathway on Pekapeka.

The development commenced early in 2009 and is progressing in stages. The first stage involved creating an interpretation site



complete with carpark, pathways, 16,000 native plants and interpretive signage. There are nine signs in total that will tell the story of Pekapeka as well as the role of wetlands in our landscape. An interesting feature of this site is that for many years it was used as an illegal dump and amongst other things the site houses the remains of a demolished hotel! Some of the rubble and reinforcing rods have been purposely left exposed to serve as a stark reminder of how we have treated wetlands in the past.

Another feature of the site is that it provides example of creating positives out of perceived negatives. Access into Pekapeka has always been tricky with a railway line running through the center of the swamp and the western flank having SH 2 on its boundary. The rail caused a bit of a problem until the decision was made to embrace the railway and incorporate it into the

design of the car park using railway materials... and it looks fantastic! Additionally the abundant wildlife within the wetland are well and truly "acclimatized" to disturbance and loud noise so are quite happy to be observed from the viewing areas without taking flight!

Next on the list of things to do is construct a viewing platform, boardwalks and bridges early next year. The interpretation site is to be formally opened on 29th October 2010 so when you are next in the Hawke's Bay make sure a visit to Pekapeka wetland is on your list of things to do.

**Above image: Members from the local Houngarea Marae, play it up for the camera, after a mornings planting at the Pekapeka Interpretation site! Below - July - August 2010 progress. Images & article, Stephen Cave, Operations Environmental Manager Hawke's Bay Regional Council**



# Green co-leader takes a wetland tour of the Waipa



*On Thursday, September the 2<sup>nd</sup> Wetland Trust Chairman Tony Roxburgh and Trustee Marie Brown had the pleasure of hosting Dr Russel Norman, co-leader of the New Zealand Green Party, for a short tour of wetlands in the Waipa District.*

University of Waikato Masters student Hannah Mueller also accompanied the group as we visited wetlands of significance and discussed management issues around wetlands and challenges to their recovery and retention.

The tour was coordinated by Tony and saw us first visit the spectacular stand of kahikatea called Yarndley's Bush Scenic Reserve. At 14 ha Yarndley's Bush is the largest remnant of kahikatea in the Waipa District and its towering forest giants and rich undergrowth reminded us of what the District might have looked like had we been visiting a few centuries earlier.

The weather was not the most conducive to outdoor activities and we viewed Lake Ngaroto and Lake Ruatuna from the comfort of the vehicle. We discussed with Russel some of the challenges the Waipa District Council and other agencies face in managing the inputs into the lakes from adjacent farming practices, and acknowledging that the settlement of peat substrates as a result of drainage for agriculture, poses serious risks.

The rain broke and allowed us a short ramble through some rather unforgiving blackberry to observe the remnant Restiad bog in Moanatuatua Scientific Reserve's northern extension. Tony explained how the small piece of land was shortly to be acquired by the Waipa District Council as the habitat type is very rare.

The piece de résistance of the day was

a visit to Lake Serpentine, the site of the proposed National Wetland Centre. We discussed the opportunities for the Trust in establishing such a centre, and some of the unique features of Lake Serpentine that will contribute to the success of the Centre.

Russel was keen to understand the challenges and to know what he could do as an MP and Party Co-leader to assist in the efforts to recognise the value of wetlands and provide for their protection and enhancement. Russel's time and interest in wetlands was very much appreciated and we look forward to the ongoing political support as we get closer to our goal of establishing the centre.

**Image and article, Marie Brown, NWT Trustee.**

**Above image: Marie Brown with Dr Russel Brown on the Waipa wetland tour.**



# Understanding predators in O Tu Wharekai Wetlands



***While most mammalian predator species have been sighted in the O Tu Wharekai Wetland Restoration Project area, located in the Ashburton lakes high country, their occurrence, abundance and behaviour is unknown. Before we launched into controlling these predators we decided we needed to understand more about them to control them effectively.***

We also needed to be able to monitor presence and abundance to determine if control is successful, however, we were unsure if the tools used to monitor predator activity in forest habitats will be effective in this wetland habitat, where predators may behave quite differently.

From March 2009 to March 2010 we embarked on a study to collect baseline data on occurrence and abundance of predators in the wetland habitats (swamp, lake edge and stream edge) of O Tu Wharekai and to ascertain the most effective tools for monitoring and trapping these species.

We laid out nine lines in different wetland sites in the project area, and ran six different management tools - traps: DOC250's for mustelids, "Twizel" conibear traps for cats, and Victor snap traps for rats, and monitoring tools:

regular tracking tunnels for mustelids and rats; large tracking tunnels for cats and waxtags for possums and rats. Each month we first ran the monitoring tools for a week followed by the traps for a week.

The first thing we discovered is that it isn't easy trapping in wetlands - what was wetland edge became lake and what was a trickling stream one month was a raging river the next, not to mention wading through swamps in minus ten degree frosts! Still, perseverance was the key to success.

The predator species present in O Tu Wharekai were found to be cats, ferrets, stoats, weasels, Norway rats, possums, hedgehogs and mice. Stoats were the most abundant predator caught; however, as they tended to live in wetland habitat almost exclusively, numbers probably reflect that most of the traps were set in wet areas. Ship rats were not detected. Ferrets, rats, possums, hedgehogs and mice can utilise all habitats.

Cats were only detected in drier areas during this study, but have been found to inhabit other wetlands elsewhere. Given the fragmented nature of the wetlands in O Tu Wharekai all predators have access to wetland prey species

as most of the wetlands are small and isolated. Any trapping regime will need to include traps set in large wetland areas, despite the logistical problems of doing so, as stoats are more likely to reside in these areas. Failure to trap in these areas could result in pockets of predators.

Conibear traps were more effective at trapping cats than DOC250's, and equally effectively at trapping ferrets. DOC250's are more effective at trapping stoats than Conibears. This meant that given the high numbers of stoats, cats and ferrets in O Tu Wharekai, any trapping regime will need to include both traps. Norway rats proved difficult to detect by tracking tunnel and very few were trapped, however wax tags indicated that they were present in most locations. To target Norway rats, a trap such as the DOC150 needs to be investigated.

There has been limited use of tracking tunnels in wetlands. In this study, tracking tunnels did not prove to be a highly sensitive tool for detecting predators. Trap catch should not be used to test the effectiveness of a trapping project, as it doesn't determine the residual predator population. However, as there are no alternative monitoring tools yet developed, the

*Article continues over the page.*





best way to determine the effectiveness of a trapping project is through species monitoring of an indicator species, eg breeding success of Australasian crested grebe. Tracking tunnels would be best run over the breeding season (or the most vulnerable period for the indicator species) to measure residual predator numbers to supplement species monitoring.

Recently the Lake Heron Conservation Group was established by the local community to provide a safe breeding haven for waterfowl on Lake Heron. It was initiated in early 2010 after people became concerned about the high pest numbers in the areas, the fate of the endangered Australasian crested grebe which inhabits the lake, and the communities desire to give back something to an environment they gain a great deal of pleasure in. There are currently 110 traps set around the lake margin, and the group is trapping high numbers of ferrets and stoats, as well as feral cats, rats, weasels and hedgehogs.

Because we did some preliminary investigation on our predator guilds, having a bit more information known about predators in the area has helped target those predators better.

## Constructing wetlands guidelines

**Constructing wetlands to reduce nutrient losses from farm tile drains guidance is now available.**

Tile drainage can act as a significant route for nutrient losses, particularly of nitrogen, from intensively grazed farm pastures to waterways. Constructed wetlands are a simple, practical tool farmers can use to intercept tile drainage water to reduce these nutrient losses. They should ideally be employed in combination with good fertilizer, grazing and effluent management practices.

A new publication provides guidelines for farmers, farm advisors, rural contractors, and regulators to appropriately locate, size, design, and construct effective wetlands. It provides guidance on wetland planting, weed control, maintenance, and expected treatment performance.

The guidelines are built on international experience as well as monitoring and modelling results from field-scale trials carried out on farms in New Zealand.

The New Zealand Guidelines for Constructed Wetland Treatment of Tile Drainage can be downloaded from [www.niwa.co.nz/freshwater/tile-drain-wetland-guidelines](http://www.niwa.co.nz/freshwater/tile-drain-wetland-guidelines)



**Images:**

**Previous page:** The Lake Emma line showing DOC250 and Conibear traps and large and regular tracking tunnels.

**Above:** Set "Twizel" Conibear trap for cats; note: this trap must be covered and should not be used if kiwi or weka are in the area.

**Images & article, Wendy Sullivan**

**O Tu Wharekai Wetland Restoration Project**

**Department of Conservation**

**[www.doc.govt.nz/otuwarekai](http://www.doc.govt.nz/otuwarekai)**



Chris C. Tanner, James Sukias and Charlotte Yates, National Institute of Water and Atmospheric Research (NIWA), Hamilton, New Zealand. [c.tanner@niwa.co.nz](mailto:c.tanner@niwa.co.nz)

For further information of constructing wetlands download this excellent resource: Tanner, C.C.; Champion, P.D.; Kloosterman, V. (2006). New Zealand constructed wetland planting guidelines.

National Institute of Water and Atmospheric Research (NIWA) in association with NZWWA. [http://www.waternz.org.nz/documents/publications/books\\_guides/constructed\\_wetland\\_planting\\_guide.pdf](http://www.waternz.org.nz/documents/publications/books_guides/constructed_wetland_planting_guide.pdf)

## Wetland Events

FREE! Planning a wetland-related event? Be it lake, bog, swamp, estuary, riverside, field day, planting day, public talk, let us know and we will promote it on our website, Facebook page, and newsletter - free promotion, take advantage and tell the world what you are planning!

### National Wetland Trust AGM 8 September 2010

The AGM was held in Te Awamutu on 8 September 2010. The Chairs report and outcome of elections is available on the NWT website: [www.wetlandtrust.org.nz](http://www.wetlandtrust.org.nz)

### NZ Freshwater Science Society Conference 2010: 22-26 November, Christchurch

Water issues within New Zealand, and particularly the Canterbury Region, have been the focus of increased media attention, with much emphasis placed on the problems and challenges we face. While these problems are real, as scientists and advisors on water management we are also looked to for practical and effective tools to address those problems.

For the 2010 NZFSS conference we are therefore encouraging our participants to focus more on "freshwater solutions". With such a focus this conference will be essential for scientists, practitioners, resource managers, and users alike.

### World Wetlands Day, 2 February 2011

Start planning now and get your invites out before Christmas. Next year is the 40th anniversary of the Ramsar Convention that WW Day celebrates. How will you celebrate in your area? Let us know and we will promote it on our website and newsletter.

### National Wetland Restoration Symposium, March 2012

The 5th National Wetland Restoration Symposium will be held in Invercargill during March 2012, see [www.wetlandtrust.org.nz](http://www.wetlandtrust.org.nz) for updates. This symposium is being organised by the Southland Wetlands Working Party in conjunction with the National Wetland Trust.



# Conserving New Zealand's bitterns - an eleventh hour conservation attempt

***Australasian bitterns are an icon of our wetlands. Few birds show such a high level of adaptation to wetlands than bitterns.***

In fact their plumage has evolved to allow them to merge in with reed beds, a habitat that bitterns are dependent upon for their survival. Sadly it is the bittern's specialised habitat requirements that are now putting this species at risk with many regions in New Zealand. Only Northland and Waikato have significant bittern populations remaining.

Throughout the remainder of New Zealand bitterns occur only in small and fragmented populations. In some regions such as Marlborough the birds are on the edge of regional extinction. In Canterbury, where I live the population is estimated at between 30-50 birds. The NZ population may be as low as 500 birds, perhaps a maximum of 2000 – making them scarcer here than kokako!

With fragmentation many other factors now come into play with bittern conservation. For example with birds living in wetlands with more edge zones the chance of predation increases, sadly there is little data to confirm this, but the increase on the harrier population is likely to impact on bitterns as are mammalian predators such as stoats and Norwegian rats. Also bitterns are highly vulnerable to collision events such as getting hit by cars and flying into power lines.

For bittern the bird's decline may be one of death by a thousand cuts. Bitterns require large, productive wetlands- a habitat still in decline. Sadly only about 5% of our original wetlands exist, and the few surviving wetlands are under increasing threat.

For me the experience of going to a wetland and knowing that no bitterns are left would make me feel empty. Bitterns really are that one bird that symbolises a sense of wilderness with wetlands. The reality is that bitterns are the test of our commitment to conserve biodiversity. As a species they have been left to the eleventh hour to consider in active conservation plans. Yet there is hope.

We have detailed information on the habitat requirements of bitterns and with some financial backing and commitment to create suitable habitat near where the surviving populations remain this species can be saved. Its future truly does rest in our hands!



*Peter Langlands and his brother Martin Langlands have composed a utube movie about the bittern and it's plight. Images are by Peter Langlands and original music-video by Martin Langlands [www.yysound.com](http://www.yysound.com)" <http://www.youtube.com/watch?v=VYjrKFcKJKk>*

*In addition he has a blog page <http://bittern-tracker.blogspot.com/>*

**Image & article , Peter Langlands, Wetlands Trust**

## Ramsar trivia answers

1. Australia, Cobourg Peninsula, Northern Territory, 220,700 ha, designated 08/05/74
2. The UK with 168 sites
3. Canada, over 13 million hectares
4. Argentina, Glaciär Vinciguerra y turberas asociadas (glaciers, lakes, and associated peatlands)
5. Six (Firth of Thames, Kopuatai, Whangamarino, Manawatu, Farewell Spit, Awarua)
6. Awarua (an extension of our first Ramsar site, Waituna Lagoon), 2008.

7. Manawatu, but only by a whisker. Farewell Spit is at almost the same latitude as Foxton.

8. North Island (four sites, two in the South Island)

9. Four (only Kopuatai and Whangamarino have no estuarine component)

10. Yes, Ramsar has a very broad definition of wetland, including lakes, rivers, swamps, marshes, wet grasslands, peatlands, oases, estuaries, deltas, tidal flats, near-shore marine areas, mangroves, coral reefs, and human-made sites such as fish ponds, rice paddies, reservoirs, and salt pans.



# Hooked on Native Fish

The NZ Landcare Trust has completed a one-year project that set out to view streams from a fresh perspective, with the focus on native fish.

The project successfully raised awareness of our unique native fish among rural and urban communities, identifying what farmers and city dwellers can do to protect and enhance their local streams. Focussing on native fish also means caring for catchments. During the year, workshops in Whaingaroa Harbour (Raglan) and Hamilton City demonstrated practical activities, which benefit streams and the surrounding land.

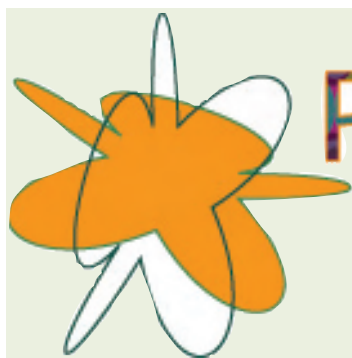
The Sustainable Management Fund funded the project with support from Whaingaroa Harbourcare, Tui 2000, Hamilton City Council, Waikato Tainui, Environment Waikato and the Department of Conservation.

It culminated with the publication of a series of colourful and quirky fact-sheets, including one translated into Te Reo - a great resource for landowners, schools and the wider community.

Download the fact-sheets from [www.landcare.org.nz/](http://www.landcare.org.nz/)



Melinda Dresser holding useful folder and Nardene Berry holding complete fact-sheets (Project Coordinators, NZ LANDCARE Trust)



## Plant profile

By Monica Peters

**Latin name:** *Drosera binata*

**Family:** DROSERACEAE

**Other names:** forked sundew, scented sundew

**Status:** Non-threatened

**Distribution:** North, South and Stewart Island, Chathams and other offshore islands. Also found in South, Eastern and Western Australia and Tasmania. Common below 1000 metres.

**Habitat:** Peatlands, bogs, seepages, lake margins, drainage ditches and poor sandy or clay soils.

**Features:** All *Drosera* species have sticky gland tipped hairs (tentacles) which are used to capture and devour trapped insects. The distinguishing feature of *D. binata* is the narrow, branching leaves which unfurl like fern fronds. Though the first leaves are often forked only once, some forms may fork up to 6 times creating 12 leaf tips. The reddish leaves wither and die in the autumn leaving only a frost hardy resting bud behind. Plants may flower several times from late spring through to early autumn and bear up to 25 flowers 11-22mm across. Plants up to 50cm tall.

**Photo captions:** Flowers can be white, white tinged with pink or yellow/green. In NZ there are 7 species of *Drosera* (sundews) and 5 species of *Utricularia* (bladderworts). The lack

of greater diversity is possibly a result of New Zealand's long period of geological isolation.

**Photo credits:** John Hobbs

### References:

NZ Carnivorous Plant Society <http://www.nzcps.co.nz/>

An excellent resource is Salmon, B. 2001. Carnivorous Plants of New Zealand. Ecosphere Publications.







# National Wetland Trust

The National Wetland Trust was established in 1999 to increase the appreciation of wetlands and their values by all New Zealanders. Our first major task is to build a wetland interpretation centre for people to learn more about wetlands and experience their special qualities. For more information visit our website: [www.nationalwetlandtrust.org.nz](http://www.nationalwetlandtrust.org.nz)

Other Trust aims are to:

- Increase public knowledge and appreciation of wetland values;
- Increase understanding of wetland functions and processes;
- Ensure landowners and government agencies commit to wetland protection, enhancement and restoration.

The trust has thirteen elected trustees representing: iwi, landowners, tourism and farming industries, local government authorities, Fish and Game Councils, the Department of Conservation, NGOs, Crown Research Institutes, and universities.

## MEMBERSHIP FORM

***An annual family subscription is \$20 ( current members, your renewal is due in April)***

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