



Waikato Biodiversity Forum

Ngā Kaihāpai Rerenga Rauropi o Waikato

Summer Newsletter 2019 Number 64

Kia ora tātou,

An update on some of the work undertaken over the past three months:

- Edited, published and gathered articles for Winter edition of Bio forum Newsletter
- Building of new forum Website with Digital Stream
- Supported and attended inaugural gully restoration meet with Go Eco and WRC
- Chaired and took minutes for biodiversity forum focus group meetings
- Edited, published and gathered articles for Summer edition of Bio forum Newsletter
- Organisation and hosting of South Waikato, River Trails Forum event in November 2019
- Organised and took minutes for Project Echo Meeting
- Updated the bio-forum email blog, website and facebook
- Responded to 19 enquiries from email and 0800 bio div service

WCEET Seeking 2020 Funding Applications

The Waikato Catchment Ecological Enhancement Trust is seeking applications for its 2020 Funding Round for ecological enhancement projects in the Lake Taupo and Waikato River catchments. **Applications close on 31 March 2020.** Funding will go towards assisting organisations, agencies and individuals with projects that foster and enhance the sustainable management of ecological resources in the Lake Taupo and Waikato River catchments.

Since 2004, WCEET has distributed \$6.0 million throughout the Waikato catchment with a further \$1.4 million committed over the next five years. WCEET supports projects throughout the catchment that maintain and enhance indigenous biodiversity, sports fisheries and game bird populations. Projects funded previously include improved fish passage, pest trapping, native tree cultivation and planting. WCEET is made up of a wide range of Waikato organisations that have a

close association with the Lake Taupo-Waikato River catchment. Members of the Trust include representatives from Royal Forest and Bird Protection Society, Department of Conservation, Fish and Game New Zealand, Mercury and the Advisory Committee for the Waikato Regional Council.

To obtain an application form or further information about the Waikato Catchment Ecological Enhancement Trust email: enquiries@wceet.org.nz or visit www.wceet.org.nz For further information contact either: Dr Gwyneth Verkerk 021 1318234, Gwyneth.verkerk@gmail.com Larnie Chrystall, 07 858 8501, Larnie.chrystall@mercury.co.nz



A Biocontrol Success Story: *Kordyana Brasiliensis* – a fungus that attacks

Tradescantia (*Tradescantia fluminensis*). *Kordyana brasiliensis* is a yellow leaf spot fungus that specifically attacks the weed *Tradescantia*. Extensive testing has shown it to be a suitable biocontrol agent for release in New Zealand. In March 2018 WDC released the biocontrol agent *Kordyana brasiliensis* into a damp forest reserve in Waingaro. It has been around a year and a half since the release was made, and a recent site visit has shown that the fungus is working well, reducing the *Tradescantia* and slowly spreading by itself.

The point of weed control is to reduce the negative effect of weeds on natural areas so that native plants can grow. One of the main problems with *Tradescantia* is that it creates a dense mat of vegetation that greatly hinders the seeds of other plants to sprout, thereby reducing biodiversity and destroying natural areas.



Above: March 2018 (before) Below: July 2019 (After)



Biocontrol versus chemical control - Most plant weed control is done using agrichemicals. Agrichemical control is expensive, almost always needs to be repeated year after year and has the potential to damage native species. Agrichemicals can pose health risks to people and the environment and are generally not target specific. Biocontrol is very target specific and poses no risk to non-target species. Looking for better and safer ways to do things, the Waikato District Council (WDC) Ecologist has been working with Landcare Research and the Waikato Regional Council to establish a biocontrol programme for serious plant pest species throughout the Waikato District.

Benefits of biocontrol - The beauty of biological control agents is that they are designed by nature and fit in to very specific ecological niches. Being living organisms they will increase and decrease their populations in response to the number of host organisms in the environment. So a small release in a large weed infestation can multiply to levels to effectively reduce the weed infestation, and then reduce correspondingly in population numbers as the weed is reduced. Also, being living organisms they will actively seek out hosts and therefore a successful release at any point in a catchment is likely to spread throughout the catchment to deal with all target weeds in the area. -Biocontrol is more cost effective than spraying, it is safer for the environment and handlers, it is a long term solution and is very target specific.

Where can I find out more? - Landcare Research is spearheading the research and breeding of biocontrol in New Zealand, and further information can be found on [their website](#). For local information on biocontrol, contact your Regional and District Councils or your friendly Waikato Biodiversity Forum

Coordinator. - Ben Wolf, Ecologist, Waikato District Council.

DOC Community Fund 2020

This is a brief update on the 2020 round of the DOC Community Fund. Information, guidance and application forms are now [available here](#).

The funding round for 2020 opens 24th February and closes 24th March. Decisions will be announced in July and Projects can commence September onwards.

The regular DOC Community Fund round has approximately \$4.6 million available. Funding for established conservation hubs has up to \$1 million available.

- Funding will be directed towards projects that restore the diversity of native plants and wildlife, including pest control, habitat restoration and weed management.
- Community groups, private landowners, iwi and non-government organisations throughout the country can apply for the funding.
- Applicants to the conservation hubs funding should be established hubs (see the factsheet for definition and detail).

If you would like to know more about the funding available or have queries that you can't answer please feel free to direct them to the Funds Team via email; dccf@doc.govt.nz, or

on 0800 86 20 20.

Opening of Waiwhakareke Natural Heritage Park (WNHP)

After 15 years of planting, releasing and many other tasks. The community of Hamilton, and all the Park supporters will be thrilled to hear that Waiwhakareke Natural Heritage Park is now open to the public.

There are five partners in the project. They are University of Waikato, whose staff have produced planting plans and monitoring reports and Tui 2000 Inc, a very small environmental group who have raised, by funding applications, well over a million dollars to buy the requisite plants. The other partners are Hamilton City Council who provide advice and staff contributions, Waikato Iwi and Waikato Polytechnic.

The Friends of Waiwhakareke, both the potting group that meets regularly at Mystery Creek, and the planting/releasing group meeting regularly at the Park come under the umbrella of Tui 2000 Inc. Work will be ongoing in 2020 as we are only half way there! The 'Friends' would appreciate your continuing support.

For those of us who have worked at the Park for many years, it is really heartening to see young people, neighbours and families stepping up to help. We recognise the Fraser High students' contribution in particular.

We are creating a world class reconstruction of the ecosystems of the Waikato and a special asset for Hamilton. Please note that WNHP is a conservation park, so dogs are not welcome and any rubbish is a "bring in/pack out" situation. WNHP is now yours to enjoy!! Lynne Garnham, Chair Tui 2000 Inc. Contact us at tui2000inc@gmail.com





Mayor of Hamilton Paula Southgate opens WNHP

Morepork Time in Hammond Park!

This time last year was when moreporks (ruru) were most outspoken in Hammond Park. We know this due to automatic hourly recordings that are being captured in Hammond Park (see graph). This is part of 'The Cacophony Project' which is developing technologies to:

- Lure invasive predators with sound and light
- Observe predators using a thermal camera
- Identify predators automatically using machine learning algorithms
- Eliminate positively identified predators
- Monitor bird song over time to measure the impact.

Hammond Park has been the main testing location for developing the 'Bird Monitor' which is basically a solar-powered mobile phone app and microphone that uploads audio recordings to the 'cloud'. Machine learning, a sub-type of



artificial intelligence, is being developed to automatically count bird calls (not just morepork) to create a 'cacophony index' across New Zealand. Find out more at cacophony.org.nz or email Dr Tim Hunt: tim.hunt@wintec.ac.nz

Tui 2000 Inc celebrates its 30th Birthday

Way back in 1989, the existing Maruia Ecological Society started morphing into Tui 2000 with the express purpose of bringing tui back into the city of Hamilton, by the year 2000. Many projects ran in parallel during the next 20 years with this purpose in mind. And the tuis came back!

We all know tui need food and shelter so appropriate planting in many existing Hamilton parks and multiple gully restoration projects and educational programmes were a key focus for Tui 2000 in the early years. Then involvement in more ambitious projects received the support of Tui 2000. The Waikato Regional Council was encouraged to persist



Members celebrate Tui 2000 Inc turning 30 at the Hamilton Gardens

with the concept of a "Hamilton Halo" (of pest control) to enhance the breeding success of tui. Tui 2000 had already committed to the restoration and enhancement of Barrett Bush, ongoing, and later took on the same work at Maungakawa (Sanatorium Hill).

The idea of a Natural Heritage Park (Waiwhakareke) was mooted and Tui 2000 saw the merit of that and put much energy into lobbying the Hamilton City Council (HCC) to set aside the land. Tui 2000 committed to growing some of the plants needed and to raising funds for plant purchase. Tui 2000 became a formal partner in the project with HCC, Waikato University, and Waikato Polytechnic and a member of the Waiwhakareke Advisory Group. Much more could be said of the work of Tui 2000 Inc as it celebrates its 30th birthday this year. However recognition of the people who have inspired us, the current members to keep going, must be given the last word. We salute Arthur Cowan, Gordon Stephenson, Bunny Mortimer, Maxine and Tony Fraser, Dale Lethbridge and Mairi Jay. And the tuis came back! Lynne Garnham, Chair, Tui 2000 Inc.



Foundation members of Tui 2000 from left to right Dale Leithbridge, Maxine Fraser and Bunny Mortimer with current Chair Lynne Garnham

Pirongia Te Aroaro o Kahu Restoration Society

Manaaki Whenua Landcare Research has recently selected Mount Pirongia to be the study site of a new national research programme called "More Birds in the Bush". The programme will utilise new measurement and spatial data to enable scientists to understand what drives increases in introduced mammal populations on a national scale. It will also provide us with the ability to forecast predator threats and their effects on bird life within different forest types. At present, the team is at the stage of mapping out territories and setting up devices to measure food resources and introduced mammal abundance.

On the ground, our kokako ecologists have confirmed 4 active kōkako nests on the maunga. Freedom and Miharo have hatched two chicks, which at two weeks old were banded by Dave and Amanda one afternoon in front of excited society members and volunteers. Fingers crossed we will see them fledge by mid-December. The mustelid traps recently set up on the Mahaukura Track are critical more than ever now and have been doing well catching stoats in the area.

The second bait station fill at Okahukura Valley in the Pureora Forest in October saw our keen volunteers covering 1000 ha over one weekend. This was another massive effort and our heartfelt thanks goes to everyone involved, especially the Department of Conservation, the University of Waikato Science Students Association and the Waikato Tramping Club. New volunteers are always welcome: please complete the online form at <https://www.mtpirongia.org.nz/join-us> or email Dianne at djune@xtra.co.nz. By Parva Zareie



Newly banded kokako chick. Photo: John Wilson

12 BAT HOMES INSTALLED IN MANGAITI GULLY 2019

We completed the bat home installation project with Tim Newton installing the last three on Thursday 5th December. One was in a gum tree in the school yard of Rototuna Primary and lots of classrooms came out to watch. The YouTube clip of bat activity in Sandford Park had been forwarded to the school, so many of the children were super excited to see the home go up. From now on it is up to the bats to respect our effort and use at least some of them!! We are very realistic, in that if we get one occupied, we will feel we have been successful.

The overall theory we have been working to is that if we put a lot up, we might get one occupied. We want to spread the options for the bats by offering a range of possible

habitats, while also working within the limitation that we have very few large tall trees in Mangaiti Gully. We looked at placing the homes in trees with clear flight paths out over the gully and facing away from the prevailing westerly wind. Pine trees were a preferred site, mostly in groves, but we have homes in two very large, old single pines located on the top edge of the gully.

Some of the locations were very challenging for Tim Newton of Green Footprint, the arborist, who did an amazing job without complaining (not to us anyway). Some of the trees are on private property. We thank the occupants for their co-operation and enthusiasm for this project. Rex Bushell, Co-ordinator, Mangaiti Gully Restoration Trust 854-0973 021-237-3857 gullyrestoration@gmail.com <http://gullyrestoration.blogspot.co.nz>



One of the 12 bat boxes installed throughout Managaiti Gully

Rings Beach Wetland Group Update

The Rings Beach Wetland Group manages 270 hectares of DOC reserve land between Matarangi and Kuaotunu. The Rings Beach volunteers were initially focused on setting up a walkway through the reserve and around the wetland. Soon after the walkway was established, it was confirmed that fernbirds were present in the wetland. This initiated a trapping programme which has gone from strength to strength.

The Group was originally under the umbrella of the Coromandel Coastal Walkways Inc, which provided support and the necessary legal structure for fundraising. Three years ago, the Group decided to pursue eliminating the thousands of wilding pines in the reserve, which was initially funded by donations. The Group was then granted 3 years of funding from Waikato Regional Council and has just completed the 2nd year of felling. With the expansion of the project, the Rings Beach Wetland Group has recently become independently incorporated to establish its own public identity and reflect the gradual evolution of the wetland walkway into a biodiverse habitat for native flora and fauna.

Trapping statistics have been gathered annually since 2013 and this year has seen some startling numbers. Since 2013, rat catches have rarely been greater than 200 per annum. 2019 broke this record with 550 caught to date, probably as part of the mast year we have heard so much about. Stoat catches also leapt from single/low double figures to 18 this year.

In addition to seeing an increase in the number of fernbirds, the Group has been rewarded by evidence of several self-introduced kiwi over the past two years. The number of people walking the track has steadily increased and track maintenance requires constant attention.

This year an upgrade to a steep part of the track was undertaken thanks to donations from the Matarangi community. And now there is a continual fight to remove pine seedlings which



re-populate any cleared land.

The Group is always looking for new volunteers and supporters - if anyone lives in the Matarangi/Kuaotunu area and would be keen to get involved or make a donation, please contact us at ringsbeachwetlandgroup@gmail.com

Owhango Alive Fungi Foray

After a spectacular fruiting of fungi in the Ohinetonga Scenic Reserve through autumn, we persuaded Lois Allison-Cooper (DOC Biodiversity Ranger) to guide us through a fungi foray in our patch of forest. We had a very informative couple of hours foraging in the forest for all sorts of fungi, under the expert guidance of Lois. When we reflected on the search area, I think we covered about 200 metres of the track and surrounds, finding lots of fascinating small and even smaller specimens of amazing fungi that reside right under our noses. Check out the photos. I think



it would be fair to say that many of our group came away with a much greater appreciation of the diverse forms of life that co-exist in the forest. Lois certainly had the expertise to bring this side of nature to life, inspiring us to take lots of photos and continue the study of fungi into the future.

Volunteer Opportunity at Lake Rotopiko

Do you like wetlands and want to help our native wetland birds by trapping mammalian pests? Do you like to keep fit and have time (three hours every three weeks or so)? Do you live nearby the Rotopiko Lakes Complex? If you answered yes to all three, you may like to consider volunteering with a small but dedicated team of trapper around South Lake at Rotopiko. We have been trapping there for the last four years and have removed over 500 pest animals to help our native wetland birds. Please get in touch with Nardene Berry at the NZ Landcare Trust if you are interested in this voluntary role. nardene.berry@landcare.org.nz



ACRE - Community Voice in Council

An ear to change and developments and a voice into Waikato Regional Council (WRC) - this is the work of the Advisory Committee for the Regional Environment (ACRE). A passionate group of community and NGO restoration and conservation representatives,

ACRE meets monthly at Regional Council. The committee shares on-the-ground restoration concerns with Council, while keeping abreast of the latest developments in Council policy and direction.

ACRE members advocate on a range of issues, and 2019 has certainly presented no shortage of opportunities. Kemble Pudney, when not busy with the establishment of Predator Free Hamilton (just one of his long list of volunteer jobs) has supported ACRE to research the value of wetlands. Advocacy for wetlands, as well as land use change, formed a large part of ACRE's submissions on the Healthy Rivers Plan Change 1 (PC1). Andrew Sinclair, with his connection to the vegetable growing region of Pukekohe, is hot on the issue of considering our land use in a holistic way - including kilograms of food, carbon emissions and nitrogen load per hectare.

Brian Habberfield-Short brings considerable expertise to ACRE, particularly in pest trapping and working with community. Brian is active in HELP Waihi and has a strong commitment to building relationships with mana whenua and brings this leadership to ACRE. In 2019, ACRE has connected with Ngāti Hauā Mahi Trust and Puniu River Care. ACRE looks forward to further developing these relationships in 2020.

Kelvin Mouritson has a deep passion for his home in Waiaro, north of Colville on the slopes of Moehau, developing the Waiaro Sanctuary. Dell Hood brings with her a knowledge formed through participation in a number of local and national groups including the Waikato Botanical Society and the Native Forest Restoration Trust. Greg Hill, through his involvement in the Pirongia Restoration Trust, provides great insight regarding the interface between private and public land - a vital piece of the puzzle!

Martin Wallace, a long-standing member of ACRE, brings on the ground realities from a sheep and beef farm near Morrinsville, carefully listening to ACRE's visiting guests and presenting them with searching questions. Leo Koppens, also a long-standing member of ACRE, is well known for his work in the restoration of the gullies round Tamahere. As an orchardist of note he brings a very practical bent to ACRE's considerations; in particular there is virtually nothing Leo does not know about weeds. And on that subject, Waikato Regional Council is reviewing its weed control strategy early in 2020 - so keep a look out for that!

ACRE brings practical on-the-ground realities to Waikato Regional Council. So if strengthening this voice appeals to you, and you'd like to join our ACRE team, the ACRE committee would welcome you! Contact Anna Casey-Cox (ACRE's current Chairperson) if you are interested - 0223546550 or anna@goeco.org.nz



ACRE members joined in a visit to Ngāti Hauā Mahi Trust - July 2019