



Waikato Biodiversity Forum

Ngā Kaihāpai Rerenga Rauropi o Waikato

Autumn Newsletter 2022 Number 73

Kia ora tātou,

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

- Edited, published and gathered articles for Autumn edition of the Forum Newsletter
- Chaired and took minutes for Forum Focus group meetings
- Sent bio-forum emails, and updated website and facebook page
- Responded to enquiries from email and 0800 bio div service
- Organisation of A, B & C's of Riparian planting event

ACRE - A Flaxroots Voice into Waikato Regional Council

Connecting the dots between policy and practice, and ensuring a flax roots voice in Waikato Regional Council - this is the mission of the Advisory Committee Regional Environment (ACRE). Current members include Keri Thompson, Shepherd Isaac and Andrew Sinclair.

"I was inspired to join ACRE to connect with other groups working in the space of restoration and to connect with Council more about their policy development," says Keri Thompson. "ACRE makes a difference by asking good questions - if we weren't there, how would staff know the questions our community has?"

Shepherd Issac has enjoyed the opportunity to understand the work of the Council and connect with their experts "Regional Council has some amazing staff. I've been inspired by people like Bruno David. ACRE has enabled me to bring these people and their knowledge into community."

Andrew Sinclair joined ACRE in 2016 "I enjoy the opportunity to advocate collaboratively for community groups involved in caring for the Whenua and building trails When the community is organised and supported, they can achieve great things and deliver cost effective outcomes for rate payer investment. This is the message that I have been conveying to Council through my involvement in ACRE. The developing Waikato Biosecurity Strategy is a sign that our voice is being heard."

ACRE meets monthly at the Waikato Regional Council, discusses policy with staff, makes submissions and attends the Environmental Performance Committee meetings. One of the current focuses is to better understand the Good Neighbour Rule that is part of the Regional Pest Management Plan. Members will be sharing this understanding and information back to their community networks.

If you are interested in joining ACRE, please contact Anna Casey-Cox - anna@goeco.org.nz



Onemana Community Action.

Onemana is a little seaside village with a big environmental heart. With about 150 permanent residents and 300 residences it thrives because of the commitment of its people to make a difference. As the farmland on which it was created was subdivided in the 1970s and it is surrounded by pine forest mono-culture there has been a battle since then to make it a better place for future generations by first protecting and then enhancing its coastland, wet land, gullies and lakes with flow on benefits to the flora and fauna.

With the assistance of Coastcare seeds are collected locally and thousands of front-dune and back-dune plants are returned 18 months later and planted each year by the community. This program begun 20+ years ago, the results have been well worth the effort to protect our coastlands. The persistent easterly swells haven't helped in the last few years but the dune plants are holding their ground and protecting the foreshore. Weedbusters hold monthly events where people get together and actively remove invasive species by extraction, cut and paste and some spraying of the kikuyu, blackberry and the like.

It's a time consuming exercise but with smart ongoing planting it has made maintenance much more manageable and the events are always good fun. This group also maintain several walking and tramping tracks in the village, around the lakes and gullies and north and south on the peninsula. A number of the community members collect local seed and grow trees and scrubs for planting.

This is supplemented by donations of seedlings as well as replanting seedlings from over crowded areas. Five plus years ago there was a major inundation event just after the pines had been harvested and the water and silt devastated a number of the gullies and lakes. This programme has been successful in rehabilitating these areas. The community has also been successful in obtaining a Matariki Tu Rākau grant which is part of the billion trees programme which has helped to enable the purchase of more natives and accelerated the program. The planting program is happening now and will be of great benefit to future generations.

Onemana is the home of the endangered North Island dotterel as well as many other native birds and a predator control program has been running under the radar for a number of years, to both protect what we have and also provide buffering for the bird population as a whole. The community also run an education program as human and canine interference can be as damaging to the dotterels as predation. While weather events made the 2021/2022 dotterel breeding season a disappointment, the provision of a Waikato Regional Council grant in 2021 has enabled the group to upgrade their fleet of traps and provide better and more efficient coverage. Covid disrupted the delivery of the traps and installation but now they are up and running and the results to date have been outstanding.

It is a small and dedicated community in Onemana see themselves as Kaitiaki who are committed to making a better future not just for the people of Onemana but also all people and those to come.



DOC Waikato Panui

Conservation Week 2022 5-11 September - The dates for Conservation Week have been announced for 2022 and are 5-11 September. The theme for this year is 'Take a moment to act for nature'. Taking action not only benefits nature, but us, as our personal wellbeing and nature's wellbeing are interconnected.

Ka ora te whenua, ka ora te tangata – when the land is well, the people are well. Over the coming months, more resources and activities will be updated and added to www.conservationweek.org.nz, which can be shared with community groups, organisations and interested individuals.

Kirikiroa Environmental Educators (KEE) - The Kirikiroa Environmental Educators (KEE) group had their first in-person hui in June (their second hui overall). This group provides space for environmental education providers to connect, network and collaborate. This group will meet again soon to create a shared vision and plan for the year ahead. If you would like to koorero further about this group, please get in touch with Tash Kingsford at tkingsford@doc.govt.nz

'Conservation Education and Biodiversity' at Sanctuary Mountain Maungatautari - In September, DOC and Sanctuary Mountain Maungatautari educators, Tash and Tali, will be hosting another collaborative teacher professional development day for Waikato teachers. The theme for this session is 'Conservation Education and Biodiversity'. It will be held in the beautiful ngahere of Maungatautari Sanctuary Mountain, allowing teachers and educators the opportunity to connect with nature, learn how to teach topics of conservation and see what fantastic education opportunities Sanctuary Mountain has to offer.

A call-out for volunteers: *Want to spend some time in a beautiful local wetland? Want to learn more about predator control, or already know a bit and want to contribute?* The Department of Conservation Waikato District Office Team is looking for volunteers to help check and maintain the predator trapline around Lake Ruatuna in Ohaupō. Target predators are rats, weasels, stoats, hedgehogs and ferrets. A range of traps are used. Training, equipment and a site visit will all be provided. You may need to be able to check the traps about every 3 weeks, especially during the bird breeding season (October – March). The frequency of trap checks depends on how many volunteers participate to share the workload. The trap checks can take at least 2 – 3 hours depending on the level of maintenance required. A reasonable level of fitness is required – the lake margin is flat but the track can be rough and hazards may be present.

Lake Ruatuna is one of several Waikato peat lakes receiving predator control, helping to create a network of suitable habitat for threatened wetland birds. Pūweto/ Spotless Crane numbers have been monitored annually at Ruatuna and Rotomanuka as part of the DOC/ Fonterra Living Water partnership and February 2022 saw the highest response rates recorded. Radio-tracking of a male Matuku/ Australasian Bittern caught at Rotomanuka in 2019 showed him visiting a number of Waipa peat lakes and flying long-distances to find suitable habitat. Both species are a good indicator of wetland health but require ongoing protection from predators. Check out [this video](#) on the Living Water YouTube channel to see footage of this cryptic wetland bird filmed this year.

Click on the following link from Living Water to read more about the Pūweto monitoring. [SPOTLESS CRAKE: THE LESSER-KNOWN BIRD THAT CAN TELL YOU HOW WELL YOU'VE RESTORED YOUR WETLAND](#)
If you are interested in getting involved please email Rose Graham – rgraham@doc.govt.nz

Vacancy for Freshwater Ranger - Look out for this new role, based in the Te Rapa Office ... more news coming soon.



Pūkoro Mirānda Shorebird Centre - Piako Roost

Keith Woodley reports that work to transform the Piako roost site is almost done. The mangroves have been cleared and most of the farm infrastructure removed. Once work on strengthening the stop banks and installing a new floodgate is signed off, the area will be reopened to the tide.

It is a win-win situation for all concerned. The 10.5 ha area of farmland had been enclosed within stop banks, one of which breached in the wake of tropical cyclone Gita in 2018. Almost immediately the flooded area began to attract thousands of shorebirds. Just as quickly, however, mangroves began encroaching so that within just two years they threatened its viability as a roost site.

Meanwhile, Waikato Regional Council had acquired the land to boost flood defences. Three floodgates on the true right bank near the mouth of the Piako River were nearing the end of their useful life. The floodgates provided protection to 850ha of good agricultural land and the communities within. The council began work to rationalise these into one floodgate asset to reduce replacement and ongoing operation and maintenance cost as well as ensuring the level of service is maintained along with options for longevity of flood protection. Once we drew their attention to the land's value as a shorebird roost site, the council approached the Trust for advice on what needed to be done to maintain it for the birds. We indicated the mangroves needed to be removed, and that raised roosting areas should be installed within the enclosure.

And the great shorebird flocks should return to using it. The Council is aware that ongoing management will be required. Mangrove seedlings will need to be controlled, and roosts regularly weeded. We will monitor how birds use the site, before recommending where bird hides should be positioned. For WRC this work is part of the Piako River green corridor project, which aims to create wetland habitat linking the Firth of Thames with the Kopuatai Peat Dome. Both Te Kapa Moana the Firth of Thames and the Kopuatai Peat Done are Ramsar sites, sites of international ecological significance. This work sits alongside riparian fencing and planting and pest control. <https://shorebirds.org.nz>



COMPETITION: While still used regularly as a roost this photo from 2019 shows the rapid mangroves growth. The photo below shows the area in April 2022 with diggers building small islands for roosting on higher tides. Shelters for the cycle track and some remaining farm infrastructure. PHOTOS / Above Janie Vaughan BELOW Keith Woodley



Reversing Biodiversity Decline in Aotearoa New Zealand - Bruce D. Clarkson

Biodiversity – the diversity within species, between species and of ecosystems – is declining globally faster than at any time in human history, according to the most recent (2019) Intergovernmental Science-Policy Panel on Biodiversity and Ecosystem Services (IPBES) report on the state of biodiversity and ecosystem services. Further, the negative trends in biodiversity and ecosystem functions are projected to worsen in most future scenarios in response to rapid human population growth, unsustainable production and consumption, and associated technological development. The world is on track to miss the targets of the Paris Agreement, the Aichi biodiversity targets, and 80% of the United Nations Sustainable Development Goals (food, water and energy security) because of our poor stewardship of the natural world. Following a brief flurry of media attention, these shocking predictions have generally evaporated from public discussion, leaving only a Google trail and the unanswered question, how does this apply to Aotearoa New Zealand? This article reflects on the history of and prognosis for reversing biodiversity decline in Aotearoa New Zealand. How does Aotearoa New Zealand fit within this global crisis scenario? How representative of our situation is this gloomy outlook of widespread biodiversity loss? Recent assessments show that New Zealand biodiversity is following and perhaps even exceeding global trends, partly reflecting the insular origin of many ecosystems and species. And what are the key causes of our biodiversity decline? To see full article [click here](#)



Ecological Plant Shield Update

Description: The Ecological Plant Shield is a protective sleeve for plants. As an ecologist with over a decade of experience in NZ, I designed them to replace plastic plant guards - reducing plastic in the environment - and as an alternative to cardboard guards that may attract insects and deteriorate when they soak up water. The Ecological Plant Shield is made from materials that do not have a negative impact on the environment, they can be left in-situ to naturally degrade over time, leaving no harmful waste in the environment.

The Ecological Plant Shield is designed to protect plants from negative environmental and other factors, including destruction by rabbits and birds by creating a physical barrier from the ground to up to a height of around 320mm. This allows the plant to grow out and above the plant shield until it is big enough to reduce the risk of destruction by these animals. The Ecological Plant Shield also helps to protect the plant from wind and spray (salt or chemical), helps to retain ground moisture around the protected plant, provides a reflective surface for light to penetrate the growing areas, is easy to install, helps with maintenance and is easy to spot in long grass. The Ecological Plant Shield solves the negative issue found with other plant shields with regard to degradation and plastic waste and

achieves the positive outcomes a plant shield should exhibit with regards to longevity and positive environmental impacts.

Purpose: The Ecological Plant Shield aims to be a cost-effective plant shield that is a robust product, has no negative impact on the environment and achieves the aim of protecting plants. **Detailed description:** The Ecological Plant Shield is a physical barrier to be placed around a plant (generally a range of sizes from root trainer



"We are now into our third year of using the Ecological Plant Shield in the field; and have discovered some unique benefits of using this material over cardboard".

to PB5 size) after the plant is planted in the ground. The volume of the Ecological Plant Shield is around 5 litres with a height of 320mm. It is made from a rockpaper material that is licenced by Environmental Choice New Zealand (licence number 2611089 and 1011090) and is recyclable with Number 2 plastics. It will degrade to materials that have no negative impact on the environment and can be composted. The method of installation requires a rod place holder such as a bamboo cane. **Unique features:** We are now into our third year of using the Ecological Plant Shield in the field; and have discovered some unique benefits of using this material over cardboard.

Plants are often planted in wetlands and lake margins, which are often subject to flooding in winter or after heavy rain. We are pleased to report that the Ecological Plant Shield performs well in flood zone areas, and the picture below shows them in a flood zone after 2 years of annual flooding – still functional. This is because this material, unlike cardboard, does not soak up water or become delaminated when wet. Ecological Plant Shields in a flood zone The longevity and robustness of the Ecological Plant

Guard means that it can be re-used for more than one planting. We have shields that have been in the field for 3 years now, and most are only just beginning to deteriorate. We aim to have a shield last at least 2 years.

Contact details: If you are interested in the Ecological Plant Shield please contact me via email or phonennatureproducts2019@outlook.com or 02102360119. We are trying to keep costs as low as possible, (currently somewhere between \$1.70 and \$1.80 a shield, depending on quantity ordered, plus GST and shipping). We can supply bamboo canes as well if required. Ben Wolf, Ecologist, Waikato

Biocontrol - Update from Waikato District Council, June 2022

What is biocontrol? Biological control (biocontrol) is the use of living organisms to depress the population of a pest. A multi-pronged attack – success through working together The Waingaro St Alban's reserve has important biodiversity values, supporting a species rich habitat dominated by New Zealand native plants. However, this site also has some major weed issues including significant ground cover of *Tradescantia fluminensis* and an understory of privet.

In 2015, WDC obtained *tradescantia* biocontrol beetles from LandCare Research and released them at the Waingaro reserve. In 2017, WDC obtained privet biocontrol lacewings from LandCare Research and released them at the Waingaro reserve. In 2018, WDC obtained *tradescantia* biocontrol fungus from LandCare Research and released them at the Waingaro reserve. In terms of privet biocontrol, little evidence exists to show any significant spread of the privet lacewing at the site, or privet biocontrol occurring. As with all wild creatures, private lacewing will thrive if the conditions are right, and may move or die out if the conditions are not. The feeling is that Waingaro is simply too damp, dark and cold to be attractive to the privet lacewing. They are still there, just not thriving.

In terms of tradescantia biocontrol, after 7 years, we are starting to see major reduction of tradescantia biomass and a synergistic impact of the beetles and the fungus working in tandem. Beetles and fungus working in tandem to attack Tradescantia weed. 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.

Various seedling (native and exotic) coming up now that weed cover is reduced. As the biomass of the Tradescantia weed is reduced, light can begin to reach the forest floor and seedlings are able to sprout and become established. Prior to biocontrol, the Tradescantia mass was too thick and dense to allow most other plants to germinate.

Biocontrol versus chemical control - 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. 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.



Beetles and fungus working in tandem to attack Tradescantia weed

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: [here](#). For local information on biocontrol, contact your Regional and District Councils or your friendly Waikato Biodiversity Forum Coordinator. - Ben Wolf, Ecologist, Waikato District Council, June 2022

The Te Pahū Landcare Group is Celebrating our 20 Year Anniversary

The Te Pahū Landcare Group is celebrating our 20 year anniversary this year. Formed in June 2002, our vision is to protect and enhance Te Pahū's natural indigenous environment and recreational opportunities through community awareness and involvement for the benefit and enjoyment of everyone.

We plan to hold some celebratory events during Conservation Week. We have planted the access way along the Kāniwhaniwha stream from the Reserve Carpark to the bush line over the past 20 years and now focus on monthly



weeding events and trapping. You can see our trapping efforts on Trap.nz here. We have installed wētā hotels (see tree wētā image and two wētā sharing a hotel, attached, photo credit for both, Nardene Berry), to provide safer homes for wētā along the walkway too. New volunteers are always welcome as we would like to extend our trapping efforts.

Owhango Alive - The Poplars Farm Predator Trapping Programme

One year on, the Poplars Farm is owned by Robert and Suzanne Carter and located in the Kirikau Valley, which is approximately 30km southwest of Taumarunui. Rob and Sue's farm is around 830 acres of steep to rolling country, grazing sheep, and beef with a Coopworth stud flock. Following on from selling our business and retiring, Gill and I watched "Fight for the Wild" and were inspired to start a new project so we approached Rob and Sue, who are our very close friends, to see if they would like us to run a predator trapping programme on their farm. They have previously won a Horizons Environment award.

Their response was a very resounding yes as they have very limited time to run such a project. So the process of purchasing traps (DOC200, Victor Rat and Trapinator's) began and I started to build all the boxes to hold the traps. Over a period of 2 days, we put chew cards around the farm in likely places that we thought predators would be located. Two week later we removed the chew cards and were surprised to find that we had got hits in a lot of the locations, so that was the basis of our first trap installation list.

We put the first 40 traps into the field on the 18th June 2021. The number of traps has grown to 86 over the last year to try to fill holes in the programme that we have identified. We have refined our trap locations and bait over that time and added traps to try and deal with the growing feral cat problem. One of the issues that we identified early on was that mice are a major problem in a farm situation, stealing our fresh bait before a predator finds it. So in all the DOC 200 and Victor Rat trap boxes we placed a small wooden based mouse trap. That has certainly helped with the bait situation, and we believe that a freshly caught mouse will also become part of the bait.

On the bait side of things, we have experimented quite a bit but at present we have settled on a smooth peanut butter mix with ground up cat biscuit. (Thanks to Sally). A mayonnaise plus extra eggs mix. Whole hens eggs or plastic eggs, beef, mutton or pork fat strips, depending on what is available, is hung on a small nail on the inside of the DOC 200 boxes. The Cat traps get frozen Paradise Duck breast meat and a strip of fat. In the DOC 200 boxes we put a milk bottle top screwed to the floor into which the peanut butter and mayonnaise mix is squirted and a small tempting squirt of mayo in the entry of the trap, and the Victor trap boxes have the peanut butter mix on the rat and mouse traps and a mayo tempter at the entrance.

One thing that I did when building the DOC200 trap boxes was to extend the lid/roof approximately 40mm past the end of the box where the mesh exposes the bait, so as to try and protect the bait from the rain driving in and sunshine. Any further boxes I build I will make the overhang 60mm. So 1 year on our catch numbers have been quite surprising as we never really expected that there were that many critters about.

Feral cats 17 Rats 290. Approx 40% Norway and 60% Ship Rats

Hedgehogs 104 Weasels 13 Possums 13 Mice 811.

Gill and I try to do a run around the 86 traps once a week providing we get a good weather window. It takes all day and we travel around 21 km on the quad with quite a bit of walking. One of the highlights of our time on the farm is spending quality time and cups of tea with Rob and Sue. We have an assistant game keeper in the form of a fox terrier named Cod who is part of the farm team, but as soon as we arrive he is our companion for the day and works hard to find any critter lurking around where we are servicing a trap.

While servicing our trap lines we regularly see a wide range of birds, from fantail, NZ robin, kereru, grey warbler, white faced heron, tui, bellbird, NZ falcon, silvereye, quail, starling, thrush, blackbird, goldfinch, chaffinch, kingfisher, rosella, ducks and magpies are a problem being worked on. Rob and Sue have also seen a kiwi by the main creek. All our hard yakka is made so worthwhile when we encounter a robin family with 2 quite small chicks less than a metre from us. ABSOLUTE MAGIC !!!

Gill and I would like to thank Mark and Sally for their friendship and support in getting our trap programme up and running and look forward to sharing our passion for bird life with anyone who needs our help. Happy trapping and enjoying the outdoors. Ken McCann

