



Waikato Biodiversity Forum

Ngā Kaihāpai Rerenga Rauropi o Waikato

Winter Newsletter 2020 Number 66

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 the Forum Newsletter
- Chaired and took minutes for Forum Focus group meetings
- Chaired and took minutes for Project Echo meetings
- Sent bio-forum emails, and updated website and facebook page
- Responded to 19 enquiries from email and 0800 bio div service

Nationally Threatened and Regionally Uncommon Species of the Waikato Region

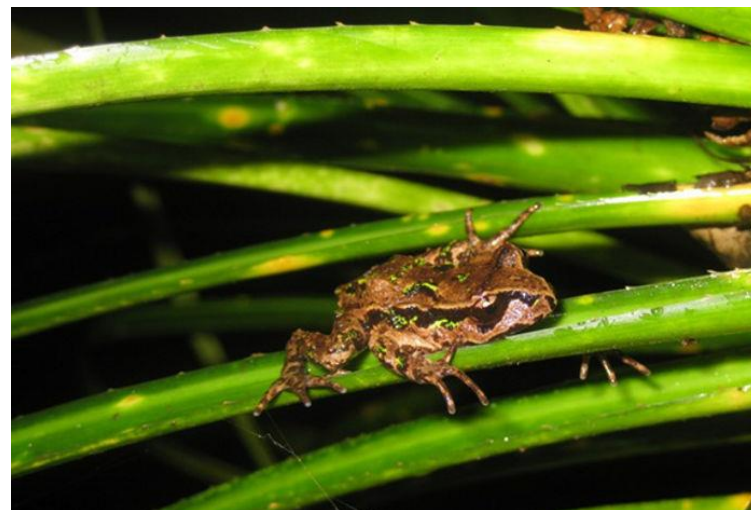
Waikato Regional Council has a role through the Regional Policy Statement to protect threatened indigenous habitats and species, safeguard remnant populations of indigenous species, and recreate ecological links for threatened species habitat. To better meet these obligations for biodiversity protection on private and public land, the council began an inventory for all nationally threatened and regionally uncommon species occurring within the Waikato region.

A database was created using the New Zealand Threat Classification System with data for selected taxonomic groups derived primarily from council Significant Natural Area datasets and Department of Conservation internal data sources. Attributes of the database include: conservation status; species translocations; regional endemism; data sensitivity; habitat; ecosystem classification; international conservation status; and occurrence in territorial authorities.

Currently, 305 threatened, at risk and data deficient species are recorded as occurring in the region including: vascular plants (196);

birds (50); herpetofauna (20); invertebrates (23); freshwater fish (10); marine mammals (4); and terrestrial mammals (2). Additionally, 60 species are recognised as recently lost from the region while 109 species are recorded as regionally uncommon. The Waikato has at least 16 regionally endemic species, including 11 invertebrates, three plants, one frog and one lizard, and is a stronghold for breeding populations of several other threatened species.

The database requires regular updating to maintain accurate conservation status and



Archey's Frog can found in Western King Country and Coromandel Peninsula

spatial information, and allow addition of further taxonomic groups. Ultimately, this will enable the council and territorial authorities to more

To download full report – [click here](#)

effectively monitor, protect and restore habitat for threatened species in a collaborative manner with other landowners/mangers.

Forest Maker Honey offering \$3000 for Native Tree Planting Projects in Waikato

Forest Maker Honey is a Waikato based Manuka Honey producer and eco-enterprise whose ultimate goal is to fund ecological restoration through the sale of New Zealand Manuka Honey. They plant trees to support the ecosystem that produces Manuka honey. By choosing to support Forest Maker honey you are supporting a sustainable system that replenishes what is consumed.

As a trial contestable funding round, FMH is offering \$3000 dollars for a Waikato project to plant a minimum of 300 native trees of any species. The conditions for the funding are stated below.

- That a minimum of 300 trees need to be shown to go in the ground for the \$3000 of funding. Preference will be for projects that can show more trees per \$ are planted.
- That these trees need be counted towards FMH funded trees on “Trees That Count” and on the FMH website
- That a copy of invoices is retained, in case FMH is audited in the future
- That blogs can be written about the project (with review checks from the landowner), including photos and videos and these maybe published on the FMH website
- That progress reports in the form of updated blogs may be written by FMH in the years to come



Danny Parker on the Job for FHM, his eco-enterprise which donates profits to Waikato restoration projects

- That this project can be used as part of PR campaigns (with reviews and checks from the owner).

In the future FMH would like to see the funding pool for Waikato restoration grow as much as possible. As part of this process, FHM is also interested in funding larger "Manukacentric" (70% Manuka 30% other native) projects of up to \$50,000 with landowners, where FMH would also negotiate beekeeping rights for land that is planted. This will then have the two-fold benefit of creating a more sustainable and possibly more profitable land-use, while also gebrating greater funding for native forest restoration projects in the Waikato.

To make a funding proposal, stock FHM Honey or any enquires contact Danny Parker hello@forestmaker.com or 0223811831. To buy honey online or to find out more you can also visit <https://www.forestmakerhoney.com/>

Waikato Regional Council - Environmental Initiatives Fund Closing Shortly

The Environmental Initiatives Fund (EIF) provides one-off grants to projects which directly enhance and/or benefit the environment or provide environmental education. Applications open 1 July 2020, 9:00 am and close on 27 July 2020, 5:00 pm

The types of projects that may be funded include; local environmental restoration projects, practical environmental initiatives that involve community participation or educational or promotional activities that raise awareness of environmental issues

Up to \$40,000 can be applied for. Projects may be funded for up to three years. However, the total project grant may not exceed \$40,000



Landcare Research Waikato Kaka Research Project

Kaka are a big iconic parrot, seen most often in the Waikato in large blocks of native forest where control of stoats and possums protects nesting birds from predation. Places like Maungatautari and Pureora are great places to see kaka throughout the year, but in winter some kaka regularly visit gardens, golf courses, and small patches of forest throughout the Waikato. Kaka are known to move up to hundreds of km, so there are big questions around where they come from, and how they use the landscape throughout the year, and understanding this is important for kaka conservation. Researchers at Manaaki Whenua — Landcare Research are planning to try to start unraveling the mysteries of where these winter visitors come from, and citizen scientists like you, can help.

If you see kaka you can record your observation on the Waikato Kaka Project on

[iNaturalist](#). If you are able to get a photo of the bird(s) to include in your observation, even better.

There are iNaturalist apps available to make it easy to record your kaka sightings (and all other living things). It's also a great way to see where other people have seen kaka, so you can hopefully catch a glimpse too.



Pirongia Te Aroaro o Kahu Restoration Society

Like plenty of New Zealand organisations, Pirongia Te Aroaro o Kahu Restoration Society operations ground to a halt for several weeks during The Great Covid-19 Lockdown. However, this did little to stop our avid nature lovers from getting outside and experiencing our fantastic native wildlife. To showcase some of the great nature photographs our members took during this time, the Society held a photographic competition which attracted over 100 entries and we gave away a number of excellent prizes kindly donated to us by local businesses such as Forest Maker Honey, Blue Wattle Ecology, Kokako Organic Coffee and Vilagrad Wineries.

Of course, once physical restrictions lifted, we wasted no time in getting back out in the field. Bait clearing in our 1,030ha grid on Mt Pirongia was completed at the end of May and a team of 25 volunteers carried out bait line maintenance

in our Okahukura valley grid, Northern Pureora Forest in early June. Lots of excellent work was done, which we greatly appreciate.

If you are interested in helping us out for baiting work on Mt Pirongia or at Pureora forest in the spring then do get in touch! Email us at info.mtpirongiarestoration@gmail.com.



Hungry Kereru, photo credit; Robert Macdonald

Hancock Forestry - Waituhi Whio Recovery Project

For the past 10 years HFM NZ has run a whio (Blue Duck) recovery project in Waituhi Forest near Taumarunui.

The project was initially set up with funding assistance from DOC, Horizons Regional Council and Genesis Energy, to establish and maintain a trapping network along 5km of the Pungapunga Stream in Waituhi Forest. Predator control is carried from August when nesting typically starts through until the chicks have fledged in February or March. Local farmer Geoff Marshall has been involved from the outset, maintaining the extensive trapping network and undertaking annual population surveys. Geoff has an additional connection to HFM NZ —his son Will owns King Country

Logging and undertakes harvesting for HFMNZ, including the harvest of Waituhi Forest.

Each year during the breeding season Geoff undertakes the population survey with his trained German Shorthaired Pointer Britta, to check on whio numbers and breeding success. This year's population survey was carried out a little later than usual in January, with Britta sniffing out five adult pairs and three individual whio, some of which were possibly recently fledged chicks.

Adult whio pairs typically inhabit approximately a 1km stretch of river as their home range. Once the juveniles can fly, they move out of the area to take up residency on their own stretch



of river. The objective of the project was to improve breeding success on the stretch of the river to repopulate habitat in the surrounding

DOC estate and we remain committed to this goal.

Collecting New Zealand's Most Enigmatic Beetle

New Zealand is home to perhaps 10,000 beetle species, but few are as enigmatic and sought after as *Brounia thoracica*. It was described by David Sharp in 1878, who stated it was "...one of the most remarkable beetles yet discovered

insect traps placed in a small native forest remnant in northern Kinleith forest by the Scion Entomology team. The trapping programme is part of our new project examining biodiversity in plantation forests and is clearly already resulting in some exciting finds.



A female *Brounia thoracica*

in New Zealand". Until recently, this odd little beetle was known from just 7 specimens collected over the last 150 years. Then in February this year, 3 specimens were found in



A flight intercept traps suspended in a tree in a native forest patch in Kinleith forest.

Forest Flora Native Nursery - Planting to Restore a Forest

There is a lot going on in a forest ecosystem. I only know about the plants so this is just about that part of a forest ecosystem. Every plant species (including trees shrubs climbers ground herbs and ferns) has its unique combination of strategies which enable it to replicate its genes.

By doing that it persists and possibly thrives in its environment. It is not by chance that each species has this unique combination of strategies. Rigorous competition for resources ensures species which avoid direct competition with other plant species have an advantage. So

as if by chance new strategies might emerge, like brighter coloured fruit or earlier flowering, natural selection does its work.

This brings me to the point of this discussion. Selecting plant species to revegetate a site. I find it really useful to group plants into five categories.

1. Colonisers which grow quickly, tolerate exposure and a wide range of soils, are precocious and liberal fruiterers but short lived and shade intolerant.
2. Canopy trees which are long lived, grow tall but may be slower growing and possibly shy fruiting.
3. Understorey shrubs and small trees which need shelter, may be particular about soil conditions, shy or irregular fruiting but tolerate shade and may be long lived.
4. Climbers, scramblers, epiphytes and parasites need other plants to grow over but may quickly spread into open gaps or use resources otherwise unused.
5. Ground ferns and herbs which tolerate shade well but don't grow woody structures.

I do have to recognize these are an artificial designation, some plants can fit in two or more categories depending on the situation. Once we have recognized there are several categories of plants which have a range of strategies, I have to consider the site and the strategies we need. If the site is very exposed or very weedy, then colonizing plants like karamu or kanuka which will beat the weeds and tolerate the exposure will predominate. Some other categories might be represented, for instance kahikatea which is our tallest canopy tree but it is shade intolerant, relatively quick growing and a liberal fruiter. Mahoe will tolerate shade but is quite quick growing so can be useful addition. Colonisers

can be short lived and tend not to regenerate in the shade of their parents so the addition of other species which might succeed them will be important.

If there is already some shelter and shade either from native trees which have been grazed under or where willows walnuts or wattles have already established then less colonisers will be needed and other tree species, more tolerant of shade and less tolerant of exposure like pukatea or porokaiwhiri might be more appropriate.



Porokaiwhiri will regenerate in the shade

If or when the wind or frost is not too bad understorey shrubs which need sheltered conditions but tolerate and importantly fruit in shady places can be introduced. These will regenerate in the shade of a forest where the colonisers will not.

Climbers like the native passionfruit or Parsonsia can be planted in these situations and are very useful for reinforcing edges of forest remnants or fragments. The ground plants like the native lobelia (*Lobelia angulata*) or ferns like thread fern (*Icarus filiformis*), rasp

fern (*Doodia australis*) are really important but best left for the second decade of the project when a good canopy has established. This

brings me to the point that a really successful restoration takes time and planting will continue as it matures. <http://www.forestflora.co.nz/>

National Forest restoration Trust - Covid Lockdown's Weedy Impact

Across New Zealand there must be hundreds of thousands of ecosourced native plants being raised in volunteer run nurseries for restoration projects. What happened to these precious plants during Level 4 of the Covid 19 lockdown? Official advice about nurseries was that only essential maintenance was acceptable; propagation and weeding were not considered essential work.

One of many such nurseries in the Waikato is run by Waikato Ecological Restoration Trust (WERT) from premises on the Mystery Creek Fieldays site, just south of Hamilton. The trustees adhered strictly to the rules; the only activity during the four weeks of Level 4 restrictions was very limited spraying for disease control to manage an outbreak of mildew on some of the most precious species, in particular swamp maire, *Syzygium maire*.

The consistently warm and dry weather, combined with an automated watering system meant that plants grew vigorously but so did the weeds. In early autumn, plant numbers are at their maximum, just before orders are filled for the winter planting season. Weeds always spread rapidly when plants are packed into the minimum area.

Immediately after the reduction in restrictions to Level 3, a maximum of 5 volunteers at a time returned to start on the mammoth weeding task, adhering strictly to a written health and safety plan. Despite multiple weeding sessions in both weeks of Level 3 the impact on the

weed problem was barely discernible, so large was the problem. The further relaxation to Level 2 restrictions provided a maximum of 10 volunteers at a time in the nursery, allowing for the most urgent weeding to be completed. Potting during levels 4 and 3 was limited with fewer people able to participate due to physical distancing. Fortunately a number of volunteers collected seedlings and supplies before the lockdown began and continued potting at home. One of the biggest frustrations of the lockdown was not being able to collect seed which will mean that some species may be in short supply next year.

The WERT nursery supplies the majority of the plants for restoration at the Trust's Ed Hillary Hope Reserve to the west of Hamilton, and ecosourced plants, most grown from seeds collected from the reserve will be available for planting there this winter provided pandemic restrictions permit. Dell Hood, Trustee, NFRT



Volunteer Peter starting on the mammoth weeding task. Photo; Dell Hood