



Waikato Biodiversity Forum

Ngā Kaihāpai Rerenga Rauropi o Waikato

Winter Newsletter 2021 Number 70

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
- Sent bio-forum emails, and updated website and facebook page
- Responded to enquiries from email and 0800 bio div service
- Organisation and Running of Biodiversity and Wellbeing Event
- Attended Kirikiriroa Restoration Network

Bio-control Education Programme with Schools

Waikato District Council, in collaboration with Manaaki Whenua - Landcare Research and Enviroschools, wishes to undertake a bio-control education programme with schools in the Waikato District. The focus is to teach the next generation about using bio-control, with training from Landcare as well as school and field based bio-control projects. The introductory project in year one is to have three schools trained to care for and hatch Honshu butterflies and releases them as bio-control agents into areas affected by the plant pest Japanese Honeysuckle. Follow up projects will build on this and explore more educational and field based biocontrol opportunities.

Biocontrol is the use of living organisms to depress the population of a pest. A good example that has been very successful in New Zealand is Ragwort flea beetle – which has reduced ragwort to very low levels in most areas. One of the prevalent weeds in the Waikato is Japanese Honeysuckle. In an attempt to get our next generation involved in better ways to manage their environment, we are teaming up with the Enviroschools programme and Manaaki Whenua - Landcare Research to set up a biocontrol education project. The issue is plant pest control and the work needs to be done to find an effective method to reduce this plant pest, as the use of agri-chemicals is not achieving meaningful reduction. Additionally, chemical control is expensive, almost always needs to be repeated every year and has the potential to damage other species, the environment, waterways and even ourselves. This project is also a good way to get children to think of alternatives and educate themselves on the collateral damage and health issues associated with agri-chemicals.



Otaua School – 1 of 3 schools trained to care for and catch Honshu Butterflies

Owhango Alive – Local tales, Dave & Judy Edhouse

Around 10 years ago we started on a project to fence off the Kakahi stream which runs along the length of our property. There were some established Totara, Rimu and Kahikatea trees which assisted in establishing the area which we began to add to once we had fenced off the area adding natives including flaxes (Harakeke), pittosporums (Rautāwhiri), cabbage trees (Ti Kōuka), lancewoods (Horoeka), kahikateas and various other grasses. This is an ongoing project with new trees planted every year, usually sourced from nurseries. However recently we have begun potting self-sown seedlings from around our property and also from our garden in Whareroa. This process involves potting the plants and keeping them under larger trees in the garden until they are large and hardy enough to plant alongside the stream. Once the area was fenced there were quite a lot of native grasses and other plants which established themselves naturally as well. The downside unfortunately was the growth of weeds and blackberry, which require constant attention with maintenance.

With the success of the planting, the birdlife has increased, which brings me to the subject of pest control. We have over the last three years carried out an intensive trapping programme. We have DOC 200 and 250 traps as well as live capture traps. Predators regularly caught include rats, hedgehogs, stoats, ferrets, and cats. So far this year has seen the capture of 5 ferrets, 5 cats, 6 stoats, 7 hedgehogs and 83 rats. Last June one trap caught a rat every day for 17 days in a row. The trapping has seen an increase in the bird life and ducks in the river.

This has been a joint project with the assistance and guidance from Weston Brown from Horizons and Mark Fredericks from Owhango Alive. Taking on a project like this requires a lot of energy and commitment but the rewards make it all worthwhile.



Pirongia Te Aroaro o Kahu Restoration Society Update

Our Society's ongoing mission to improve outcomes for native birds has seen the team focusing on something a little bit different these last couple of months. Our exciting collaboration with Maungatautari Ecological Island Trust on the reintroduction of titipounamu (a.k.a rifleman), Aotearoa's smallest native bird, to Maungatautari began last May with surveying numbers. Translocation of them took place this May with a team led by Tiritiri Matangi and the Hihi Conservation Trust. 40 titipounamu from Pirongia and 40 captured from Pureora Forest have been released onto the Sanctuary Mountain Maungatautari and their progress will be monitored by another survey in the next 6 months



Craig Montgomerie (SSM), and Clare St Pierre (PRS) releasing the first Titipounamu at Maungatautari. Photo credit: Tom Davies.

to find their locations and evidence of breeding success. So cross all your fingers, your toes... and watch this space!

We haven't forgotten about kōkako of course. Thanks to our army of superstar volunteers, we wrapped up an amazing kōkako breeding season this year with a total of 23 fledglings from 9 breeding pairs recorded on the maunga – a massive improvement from 10 chicks last season.

Things are also looking great down in the valley, with the Okahukura kōkako survey taking place in early May and results showing kōkako territories were spread over almost the entire management area. There was an astounding 92 pairs and 7 singles recorded, more than double the number recorded during the last survey four years ago. A great result and a testament to the hard work of all our amazing volunteers.

Rings Beach Wetland Group - Next Steps in the Reserve

The patron of the Rings Beach Wetland Group, Ian McDonald, sitting on a seat in the Matarangi Bluff Scenic Reserve Going forward with predator management, our aim is to trap the entire boundary perimeter of the Matarangi Bluff Scenic reserve. This is to try and stop the entry of predators into the reserve and further protect the wildlife that calls the wetland and bush home.

So far, good progress has been made with a new track created along the causeway road (ie: the entrance to Matarangi) and around the estuary to the southern boundary of the reserve. A variety of traps will be deployed on new lines along this area in the coming months. We are very grateful to have received funding from the Waikato Regional Council's Environmental Initiatives Fund to allow us to complete this work.

The removal of wilding pines and other weeds continues thanks to our RBWG volunteers. If you are able to assist us in any capacity please don't hesitate to get in touch via email on ringsbeachwetlandgroup@gmail.com.



New Approaches to Stream Monitoring - Hancock Forest Management

Water quality and stream impacts have always been a strong focus for HFM NZ. Over the years we have used a range of methods for stream monitoring to assess instream impacts of our operations. In the past monitoring has generally involved staff taking periodic water samples for testing. Alternatively, third party providers have been engaged to undertake more comprehensive monitoring of streams on a quarterly basis. This provides good information but is just too expensive to carry out over a large number of streams. We have also used electric fishing extensively to assess the fish populations in our waterways. Electric fishing involves applying a current to the water to temporarily stun the fish which can then be caught in a net to record what species are present. While it provides very useful information it is clearly a quite invasive way of monitoring – for the fish at least!

Recently HFM NZ has been trialling some alternative methods to monitor waterways in our forests. 'Rapid Habitat Assessment' is a method developed by the Cawthron Institute to manually assess habitat quality of a section of the river based on a range of visual observations of the quality of the river bed and banks. This has commenced in Aramiro Forest on the flanks of Pirongia, in partnership with the landowners, the Aramiro Whenua Trust. This will enable us to work together to assess changes to stream quality over time both as a result of our harvesting, and also improvements being undertaken by the landowners on their downstream farmland.

Another methodology that is showing real promise is the new tool of Environmental DNA testing or 'eDNA'. Water samples are collected in a syringe and sent away for DNA analysis which gives a report of all of the different types of DNA fragments that are present in the water – including fish, macroinvertebrates and even land based animals in the catchment. eDNA has the potential to replace manual methods such as visual counts and electric fishing to identify what species are present.

Fish and macroinvertebrates are a really good indicator of stream health, so eDNA has the potential to be used as a method for monitoring overall stream health – using the presence or absence of more sensitive species as an indicator of health. It can also be used to locate rare but hard to find species such as the black mudfish in our Northern forests, and also pest species. The real advantage is that samples are quick and easy to collect and give a wealth of information about what is in the waterway. Water monitoring is an area that is rapidly developing and HFM NZ is keeping a close eye on further developments in this space.



1 of 9 sites in Aramiro forest where rapid habitat assessment is being undertaken