



Waikato Biodiversity Forum

Ngā Kaihāpai Rerenga Rauropi o Waikato

Annual Report from the Waikato Biodiversity Forum 2022/23

Introduction

The Waikato Biodiversity Forum has been operating for 19 years and has a current membership of approximately 500. The Forum's membership is comprised of research and management agencies, iwi groups, private landowners, community groups and individuals who work towards improving indigenous biodiversity in the Waikato region. The Forum believes that the combined synergies of people working together provide a valuable contribution to improving biodiversity across the region. The Forum speaks on behalf of biodiversity. However, it does not necessarily reflect the views of all Forum members on every biodiversity issue.

The Forum operates independently of its constituent organisations. It is run by a part-time coordinator who receives support and guidance from a Focus Group. The Forum's work includes:

- Engaging with agencies groups and individuals to network, share ideas and work together to protect and enhance biodiversity
- Acting as a referral agency for Waikato biodiversity information and contacts
- Organising forums to discuss biodiversity issues and focus on local projects
- Organising workshops for community and agencies on a variety of biodiversity topics and activities
- Disseminating relevant local and national biodiversity information and notices through the Forum's website, facebook, email and local media sources
- Providing support to community initiatives which protect and enhance biodiversity.
- Advocating for the development of sound policy to enhance biodiversity protection at national, regional and local levels

Acknowledgements

The Waikato Biodiversity Forum would like to acknowledge and thank the following organisations for their financial support: Waikato Regional Council, Department of Conservation, Waikato

District Council, Hamilton City Council, Waipa District Council and South Waikato District Council.

The Forum would also like to thank the Focus Group members for their support and contribution to the work of the coordinator's roles. Their advice and guidance provides a valuable contribution to the success of the Forum.

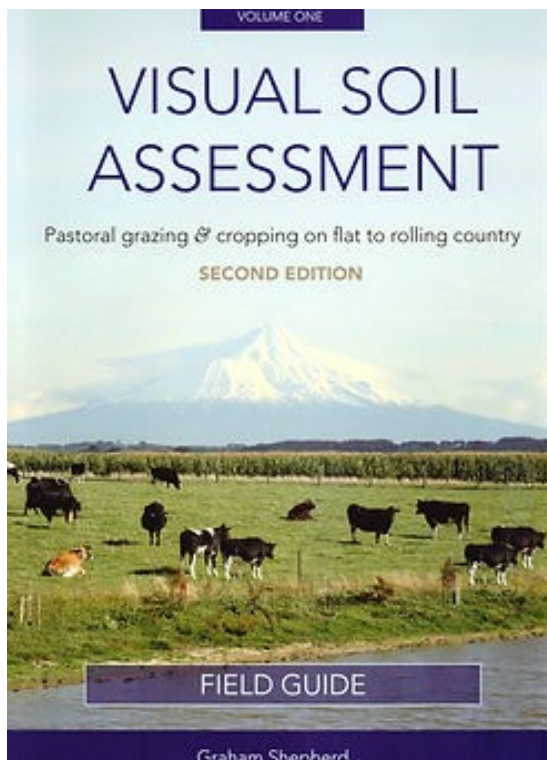
Finally, the Forum would like to thank the staff from Forum member organisations and community groups for their contribution and expertise during Forum events, workshops, and the on-going exchange of information with the public and other Forum members. This collective expertise makes the operation of the Forum a success and is valued by Forum members and the public.

Waikato Biodiversity Forum Events

The soil health and biodiversity day took place on the 19th of October and was held at the Paterangi Hall, in the Waipa district. The day was a collaborative effort between WBF, Waikato Regional Council (WRC) and the Landcare Trust.

The day started off with Bala Tikki setty from WRC and Sam Mcelwee, the coordinator of the Waikato Regional Council opening up proceedings. Sam and Bala set the scene for the day with a karakia to welcome everyone and set our intentions. From there, a sobering assessment of both the current national and international health of soil was presented. For a long time soil has been treated as an inert substance which is only balanced through chemical input. The inadequacy of this approach to soil health, has resulted in an emerging global crises, of rapid soil desertification and erosion. These processes are having drier impacts on our soils ability to grow vegetation and hold water, which in turn is contributing up to 40% of global carbon emissions. The picture is now clear that healthy soil is essential for the health (economic, environmental, mental) of almost all life on earth, including humans, and that soil is currently being degraded at unprecedented rates worldwide. Dying soil is unsurprisingly not an issue

in areas covered with extensive and established vegetation, like our native forests, which covered much of the country prior to human settlement. The



issue of dying soil lies in areas covered in agricultural and horticultural soils, which take up 70% of land globally and around 50% of Aotearoa, NZ. The solution to our soil crisis is not to stop farming, as we all rely on farming in so many ways, but we must make farming practices carbon positive, i.e building soil rather than destroying it. Not only will doing this contribute majorly to halting our planets climate crisis, but also farming can be made more profitable in the long run.

Following on from Sam and Bala, Graham Sheppard, took over proceedings and spoke about what makes soil healthy, and how we can assess the health of soil accurately ourselves via Grahams Visual Soil Assessment (VSA) tool. VSA is an effective and immediate way to assess soil quality quickly and cheaply in the field. VSA provides a range of assessment tools to look at soil and plant properties which contribute to soil health, for example soil texture, structure porosity, worm counts and soil smell. To find out more about VSA in detail, [click here](#).

A key understanding from the day, was that soil carbon plays a vital role in soil health, as it provides the building blocks for all cells and organisms. It also regulates biological, chemical

and physical process in soil and is a major reservoir of plant nutrients. As the use of chemical fertilizers has become the norm, we have seen a reduction in organic content going back into soil, this has led to a major increase of carbon released into the atmosphere globally. Increasing organic content in soil is the key to increasing soil carbon, and therefore also vital for us in tackling climate change and a looming global food crisis. Luckily some farmers in NZ are already carbon positive, and being that much of our farming is pastoral rather than crop based (which is more damaging to soil), farming practices here can quickly be adapted to make the whole agricultural sector carbon positive. This would have hugely positive effects on the long term economic and environmental health of our nation and contribute globally to reducing carbon emissions. A win win.

The second event of the year - the Waikato Biodiversity Forum Biocontrol workshop took place on the 6th of April, at The Link, Kirikiriroa. The event was a collaborative effort between the Biodiversity Forum, Waikato Regional Council and Manaaki Whenua, Landcare Research. Coordinator of the Forum, Sam Mcelwee began the day with a Wakatau to welcome everyone to the whare and set our intentions and plan for the day. The purpose of the day was to give the community an opportunity to learn more about biocontrol, from the initial process of identifying potential agents (insects) that may help us control problem weeds, all the way to releasing and monitoring these same agents here in the Waikato.

Sam gave an example of his own first experience with biocontrol over 20 years ago, while spraying ragwort weeds on his Dad's dairy farm in Atimuri. He said that his Dad spoke about a bug that had been released, which would eat the ragwort flower and kill the plants for us. After coming home every evening covered in spray dye, this seemed like a great idea, but definitely a fanciful one! Low and behold, now and for the past 10 years, ragwort has all but disappeared after covering much of Waikato's farmlands.

The Ragwort beetle was a huge success. Not all bio-agents have been as successful as that. But as Chantal Probst and Hugh Gourlay from Manaaki Whenua discussed, biocontrol in NZ has been very safe. Which is inevitably what most peoples biggest concern around bio-control is. The

testing of biocontrol agents is extremely thorough. Chantal explained, “In New Zealand, we have been doing biocontrol for about 90 years. Sixty-five agents have been released, and there have been no significant non-target attacks. Of our releases, 33 per cent have been so successful that no other control options were required; 50 per cent have been partially successful and 17 per cent were failures – meaning they’ve had no impact on the pest plant”.

Once agents are identified and collected overseas, (for example Wholly Nightshade in Argentina), both the effectiveness of the agents and any potential to damage native or non-native plants is examined over a number of years and growth cycles, in a range of environments. Once testing is completed and an agent has been deemed as safe and effective, an application to the EPA is made. This process can take a considerable amount of time in itself, especially if there is a back-log of applications. Worldwide, on average, it takes 14 years before a biocontrol agent is released. Here in New Zealand, it’s a very public process, with the decision based on risks, costs and benefits. There are also financial costs to bare from the process, which are taken up by regional and district councils, like the Waikato Regional council, who are responsible for local releases, once they have been approved.

Hamish Hodgson and Andrew Thomas of the Waikato Regional Council spoke about their insights into local biocontrol releases, which target pest weeds in native restoration areas. The superstars in that space in the Waikato have been three beetles and a spot fungus that target tradescantia. The spot fungus is going gang busters, especially with the wet weather. While the woolly nightshade lace bug, which was released in 2009, is also now widespread throughout the Waikato. Hamish commented that “In Uruguay, woolly nightshade looks like a completely different plant because there are so many things attacking it. The New Zealand plant just looked like it was on steroids”. Hamish said that releases can often take many years to establish, if they take at all. The Honshu white admiral butterfly, which targets Japanese honeysuckle, has established very well in the Karangahake Gorge but nowhere else. We don’t know why! And we’ve done 19 releases of privet lace bug which has established but is not widespread, with the best site in the Coromandel

Peninsula. We can support community groups and landowners to help us establish biocontrol agents within the Waikato. We have sites where you can see them and catch them, and then move them on to other locations for further establishment.



**Biocontrol
Workshop**

6th April @ The Link
4 Te Aroha Street Hamilton

9:00 Morning Tea

9:30 – 11:30 Learn from national and regional experts about:

- The basics of Biocontrol
- How bio control is being applied in the Waikato
- How we have already benefited from bio control.
- Secrets to success, and reassurances about safety and much, much more!

12:30 – 3:30 Field trip in and around kikiriroa to check out bio-agents, potentially for Tradescantia, Privet, Japanese honeysuckle, Moth plant (availability dependent weather and other factors)

To Register - click image or email
info@waikatobiodiversity.org.nz

Logos for Waikato Regional Council, Waikato Biodiversity, and Waikato University are visible at the bottom.

So overall, the take from the day was that biocontrols in NZ, have varied in their effectiveness as weed killers, from a very effective (e.g Ragwort bug estimated to save billions of dollars in weedcontrol savings) down to a neutral or minimal effect (e.g Japanese Honey Suckle, Honshu Butterfly struggling to establish). But we can rest assured, with the knowledge that there has never been a negative effect from biocontrols, on our native or valued non-native species of plant. To find out more about the day [click here](#).

Advice, Referral and Networking

The Forum network continues to provide a link for community group members and management agencies through dissemination of information and communication, with individual members to answer queries or refer them to other sources of information. A resource person register is maintained so that Forum members can be put in touch with the right person for advice and assistance. The Forum coordinator has a list of Forum members who can act as “Biodiversity Champions” on particular issues.

The Forum coordinator operated the 0800 BIODIV line and email service who meets the needs of inquiries or refers them to an appropriate person. 110 inquiries were responded to over 2022/23, from Forum and non-Forum members, through the 0800 line and email. The inquiries continue to range from funding, weed and animal pest management, details of community group projects, volunteering on projects and planting information.

The Forum coordinator organized, chaired, and took minutes for 5 Biodiversity Forum Focus Group meetings.

Community Group Database

The Forum's database and map of community group projects was maintained which continues to highlight the contribution that these groups make to biodiversity protection and enhancement across the region.

Support for Community/Agency initiatives and events

Including the many webinars attended, the Forum Coordinator also participated in the Online and in person workshops for NZ collective models for ecosystem regeneration research (05/09/22, 06/09/22, 03/03/23, 23/06/23). Meeting with MP for Waikato/King Country (21/03/23). Kirikiriroa Restoration Forum (11/07/23)

Media

The Waikato Biodiversity Forum connect to public primarily via direct email contact through Mailchimp to more than 450 subscribers. Also via the Forum [Facebook](#) page and website.

The Forum members received four newsletters (Summer, Spring, Winter and Autumn editions) containing updates, findings, and stories from biodiversity projects across the Waikato Rohe. [Click here to see all editions of the newsletters.](#)

19 Mailchimp emails were sent out over the 22/23 year to Biodiversity Forum Members, to inform them of relevant biodiversity events, dates, notices and information.

18/04/23 Free Fm interview to discuss and promote Waikato biodiversity issues and events.

Summary

The Forum has continued to involve itself in advocacy, networking and advice to organisations and groups across the region. It has worked with other organisations and groups to support biodiversity work and provide opportunities to add value to the work of member organisations, groups and individuals. Sam, on behalf of the Forum, would like to acknowledge and commend the work that agencies, community groups and individuals carry out to improve biodiversity. They would also like to thank the Focus Group members for their support and contribution to the Forum's work.

Sam Mcelwee, Forum Coordinator

