

Waikato ENVIROSCHOOLS

He mihi

Welcome to the Waikato Enviroschools newsletter.

It was a busy and exciting term one, with many activities to inspire and empower students.

Highlights included our second [Waikato Climate Camp](#) in March, attended by youth from Cambridge High, Paeroa College, Tauhara College and [Rangatahi Voices](#), a World Water Day Expo in Taupō and stream studies across the region. If you're interested in conducting your own stream study, we now have [Freshwater Detectives kits](#) available for schools to borrow. Get in touch with your facilitator to book them.

Congratulations to Elstow-Waihou school for reflecting at Silver, and Pāterangi school for reflecting at Bronze in term one.

This term, we farewelled Ruairi Kelly from the facilitation team and welcomed Jo Buchan. Jo will be facilitating in the Hauraki and Thames Coromandel districts. We thank Ruairi for his valued contributions to the Enviroschools programme over the years.

This edition is full of stories, opportunities and resources to inspire you as we move into the winter months. We hope it offers an engaging read. Please feel free to forward it on to any interested colleagues.

Ngā mihi,

The Enviroschools team



Tā mātou mahi | What we do

Enviroschools is a nationwide programme supported by Toimata Foundation, founding partner Te Mauri Tau, and a large network of regional partners, like us here at Waikato Regional Council. It helps support early childhood centres and schools on their long-term sustainability journeys, teaching a generation of young people to value and nurture their natural environment.

Our vision is to create a healthy, peaceful, sustainable world through learning and taking action together.

14 Regional Partners

202 Enviroschools

**51
ECE centres**

**151
schools**

**45,900
tamariki and students**

**14% of early childhood
53% of primary and intermediate**

**38% of secondary
63% of composite and other**

3 collaborators

Waikato Enviroschools acknowledge our funding partners. Their ongoing input and funding is essential to the success of the Enviroschool programme throughout our region.



Ngā kaupapa e haere ake nei | Opportunities



Arbor Day planting in Hamilton

Waiwhakareke Natural Heritage Park,
31 May to 3 June, 9.30am-2.30pm

Waiwhakareke Natural Heritage Park is a 500-year project to turn 60-hectares of farmland back into native forest and wetlands. Come along to plant some trees and help to restore this emerging haven for biodiversity in the city. Register your interest on their [event page](#).

Greening Taupō Day

Crown Park Taupō, 2 June, 9.30-1pm

Celebrate Arbor Day with a fun-filled community event where 4500 trees will be planted. Special guests will be there to entertain and educate, along with a huge range of conservation experts and local businesses running free activities. There will also be free kai for participating planters and [special prizes and incentives](#) available to schools and ECE centres. Find out more [here](#).

Matariki

11 July

Matariki will be celebrated in July during the school term break – what are you doing to celebrate? Matariki can be a time to share songs and stories, make music and play games, make a fire and share kai. You could also explore some activities from our Energy theme kit. In Wind and Sun, you can learn how to make a manu tukutuku (kite). Or explore the whakapapa (genealogy) of fire in Māui gets fire from Mahuika. Find out more about Te Iwa o Matariki [here](#).

Ecological buildings

Introducing Enviroschools' newest theme area: [ecological buildings](#). This theme area encourages creative processes through principles we can apply to everything we make.

- Buildings come from nature and return to nature.
- The built environment interacts with all the elements of nature.
- We should realise and value the inseparable connection between people's culture and relationship with nature, and how this can be expressed in buildings.
- Plan, design and construct aspects of the built environment.

Waikato Enviroschools will focus on this theme area in term 2 and 3 this year.

Eco Hut Challenge

2 November

Students will compete against each other, building ecologically friendly huts as part of the Enviroschools Eco Hut Challenge. Contact your facilitator for details.

NZ Association of Environmental Education (NZAEE)

NZAEE continues to offer webinars each term, matching subject experts and on-the-ground practitioners across a range of subjects. Here are some of the useful webinars they've hosted recently.

- [Engaging with Mana Whenua Tangata Tiriti](#) | Treaty People interview with Dr Therese Ford and Alex Barnes (36 mins)
- [Indigenisation and Indigenous Inclusion](#), with Associate Professor Te Kawehau Hoskins and Professor Alison Jones (1 hour)
- [Maramataka with Mihi Tibble](#) from the Mātauranga Māori series of webinars by Physical Education New Zealand (55 mins)

Teacher professional development

Marian Catholic School Hamilton and
Waipahihi Botanic Gardens Taupo,
Wednesday 30 August, 1pm-4.30pm

This will be a hands-on, productive day of teachers sharing and learning together to unpack the newest theme area in Week 7 and 8. Afternoon tea will be provided. A mini workshop will also be held in Taupō at the Botanical Gardens. Contact your facilitator for more information.

Register for Hamilton [here](#).

Register for Taupō [here](#).



He tīwhiri | Quick sustainability tips

Plastic Free July

Reducing our reliance on single-use plastics can have a significant impact on creating a healthy and sustainable future.

Many businesses, schools and local authorities around the world have found that sharing food, fun and conversation about plastic free solutions is a simple way to create new habits and kick-start bigger changes.

Why not join them this Plastic Free July by organising a [Plastic Free morning tea](#) and sharing a photo in our [Facebook group](#).

Ngā hua | Our stories

Beetles on tour

A dense blanket of weeds covers a shady woodland gully at St Patrick's school in Taupō.

Tradescantia fluminensis – or wandering willie – is one of New Zealand's most wanted invasive plants and at St Patrick's it shades the woodland area in a thick carpet, making it impossible for young native seedlings to establish.

The school was keen to explore spray-free options to deal with the problem, and thought it was a good opportunity for the students to learn about biocontrol, a method of controlling pest plants or animals by using another organism.

Rachel Thompson from Kids Greening Taupō, who had been working with St Patrick's, reached out to the Waikato Enviroschools team, asking if any Hamilton schools had access to gullies with tradescantia leaf beetles.

Back in 2007, Manaaki Whenua Landcare Research imported tradescantia leaf beetles from Brazil for use as a bio-control agent, and Waikato Regional Council released them in 2011 after rigorous testing to make sure they wouldn't become a biosecurity issue, and with Government approval.

It just so happened that fellow Enviroschool Maeroa Intermediate had a great patch of tradescantia where beetles were thriving.



Armed with nets and some ingenious home-made suction devices called 'pooters', 28 students from Maeroa Intermediate spent about two hours catching around 200 tradescantia leaf beetles to go on tour to Taupō.

The kids had heaps of fun and the students at St Patrick's were excited to receive their new hungry helpers and



Tradescantia - Trio of Beetles

Leaf beetle
Neolema ogloblini



Stem beetle
Lema basicostata



Tip beetle
Neolema abbreviata



learn about a spray-free, less labour-intensive way to help manage the tradescantia in their gully. The two schools are sharing their experiences and progress in managing tradescantia.

In term two, the students at St Patrick's added another biological control agent, with permission from Waikato Regional Council, to complement the beetles – tradescantia yellow leaf spot fungus, which was released in New Zealand in 2018.

Facilitators Jenni and Adrienne worked with small groups of students to set up a number of 'quadrats' (frames used to isolate a standard unit of area to study) into which a handful of infected tradescantias was released to monitor the rate of the spot fungus' spread. They also developed a monitoring template for them to capture their observations and data.

The students visit the quadrats every three weeks to take photos and observe the change. Because the fungus is most effective in warmer months, students are also monitoring the effect of temperature and rainfall on the rate of spread.

The teachers at St Patrick's and Maeroa are excited about the opportunity to have such engaging, hands-on learning available in their class.



The project has been a big hit by controlling the weeds, helping the students learn about biocontrol agents, and providing the perfect platform for ongoing scientific observation.

In fact, it's been such a success that word, much like the fungus, is spreading. Te Miro School found out about this awesome mahi on Facebook and plans to replicate the scientific studies on both tradescantia fungus and beetles.

World Water Day

Nestled between the southern shores of Lake Taupō and New Zealand's oldest national park, the Tongariro National Trout Centre has one of the country's best collections of native freshwater fish.

In a giant aquarium, kōkopu (cockabullies), tuna (eels) and kōaro swim placidly, kōura (freshwater crayfish) amble by, and a turquoise hatchery teems with colourful rainbow trout.

On World Water Day, over 150 students, seven teachers and 10 supporting adults from Waikato schools streamed into this awesome location for an action-packed two and a half hours learning about all things water.

Small groups of students excitedly worked their way around 11 learning stations that focused on the Enviroschools theme area Water of Life.

A range of water experts shared their wealth of knowledge, including from Waikato Regional Council, the National Institute of Water and Atmospheric Research (NIWA), Department of Conservation and the Ministry for Primary Industries.

NIWA field scientists showed the students how they measure and monitor weather and water, with Martyn Chew giving them a demo of the remote-control boat he uses to help measure water temperature, flow and much more.

Waikato Regional Council Regional Hazards Advisor Phil Mourot demonstrated the relationship between rain events and natural flood plains using a scale model, and explained the need to understand the water cycle to inform careful planning and land use.

Enviroschools facilitator Alex Daniel taught students about water quality and the effects of riparian planting. They particularly loved using the zen-sounding but entirely scientific 'clarity tube' for measuring water quality. The tube contains a black target which is moved away from the eye until it can no longer be seen. The murkier the visibility, the lower the water quality tends to be, the students were told.

Staff from the National Trout Centre told students that macroinvertebrates – small aquatic creatures without spines – were great indicators of water health too, and challenged them to identify a number of small bugs collected from the Tongariro River.



The students also learned about the native species in the Trout Centre's impressive aquarium, and about aquatic pest animals and plants – including how to prevent their spread.

Taupō District Council surprised some of the students with their breakdown of the most common types of litter found in Lake Taupō – lollipop sticks if you can believe it – which really underscored the importance of looking after water.

Deputy harbourmaster Cameron Brown gave a shipshape overview about safety on the water. The Ministry of Education shared some cool stories about place names associated with the local iwi, Tūwharetoa. Kids Greening Taupō covered the area's wetlands and their significance. And Contact Energy – who also kindly sponsored the buses to and from the Trout Centre – demoed a moving model showing how steam can be converted to energy.

Full to the brim with knowledge on all things water, the students enjoyed some well-earned kai with a lunchtime sausage sizzle kindly cooked by Trout Centre CEO, Bevin and laid on by Taupō-based companies M21 Meats and Bakers Delight.

It was as clear from their reflections that the students had learned a lot and that the wonderful wildlife on show was a highlight for many. One student said, *"I found it interesting that invertebrates have no spines"* while another commented how cool it was *"seeing all the fish swimming everywhere"*.



He rauemi | Resource spotlight

Many schools are looking to develop or deepen relationships with mana whenua, iwi or hapū as they explore local histories. Treaty People, an education programme on the Te Tiriti o Waitangi, offers a fantastic video looking at how we can work towards culturally responsive, meaningful, mutually supportive and authentic relationships. You can watch it [here](#).

On the Enviroschools website, you can also find resources related to this kaupapa, including local histories, links to manaakitanga ki te taiao (looking after the environment), and Education for Sustainability. If you would like support on this journey, please contact your Enviroschools facilitator.

Ngā ringa hāpai | Enviroschools Waikato schools facilitation team



Top: Adrienne, Anna, Alex, Ruairi | Bottom: Michelle, Camilla, Jennifer, Jo

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Find out more

enviroschools.org.nz

Check out the great selection of national news, resources and ideas in the team area. To register, head to 'team area login' and click 'register'. Please note you will need your school/centre's MoE number to complete the registration process. You can find this here: educationcounts.govt.nz.

Waikato Enviroschools Facebook

facebook.com/groups/waikatoenviroschools

Join our friendly and supportive closed forum to share inspiration, thoughts, learnings and more.

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