



Lets keep conserving water!!!

MPDC - Level 3: At this level, the water supply is under extreme pressure. Hand-held hoses should only be used on alternate days. Sprinklers, garden irrigation systems, unattended hoses, unnecessary water blasting and other water use is banned.

Hauraki DC- Conserve Water

What's been happening in the Piako Catchment...

The Seed Collectors Diary...

February to April is an exciting and busy time for native eco-sourced seed collectors. It is a veritable smorgasbord out there.

My small but merry band of seed collectors is focussed on the species that were once common in our local lowland forests but are now uncommon or rare. The reason for this is so that local nurseries can have the opportunity to grow these species to plant back into restoration projects. Thus helping make our projects to be as representative as possible of the majestic lowland forests that once clothed this fertile valley

Species that we collected in February were matai, pokaka, aruhe (*Coprosma areolata*) hukihuki (Swamp coprosma or *Coprosma tenuicaulis*) and poataniwha (*Melicope simplex*).



An interesting fruit that you can see on the forest floor at Te Miro Waterworks Rd Reserve at the moment is the kōhia or NZ native passionfruit. Sadly this is not tasty like the cultivated passionfruit. Kōhia is a climber and produces stunning tarzan like vines hanging from the canopy.

A species we were hoping to collect around now is the mighty rimu. Rimu are very hard to find seed on in the forest because the foliage where the fruit hides is very high and out of reach so the birds eat it all. We have found that 'paddock stranded' rimu can be a great source of seed because their foliage is dense right down to grazing height. But the big challenge with collecting rimu seed is that rimu are a species that tend to fruit very heavily every few years with little fruit in the intervening years. This is called masting. Things were looking very promising a few weeks ago with lots of the tiny cones developing. However a recent progress check showed virtually none left. We don't know exactly what caused the cones to drop off prematurely. Fingers crossed for next year!

On a much brighter note, we made a surprising discovery beside the Waitoa River of a fruiting specimen of rohotu (*Neomyrtus pedunculata*). This once common shrub is now rarely spotted in the Waikato. It is a member of the Myrtle family along with iconic indigenous plants like pōhutukawa, rātā, swamp maire, manuka, kanuka but also exotics like the eucalypts and the feijoa. With the arrival of the very



damaging myrtle rust all our native myrtles are now considered to be threatened.

We were lucky enough to find two other smaller specimens of rohotu nearby and gathered fruit on three occasions over a couple of weeks as they ripened. The seeds have been sown and we must now wait to see if they germinate. If we are lucky enough to grow some plants we will prioritise establishing a small colony in our gully restoration so that we can more easily gather seed in future to be shared with local nurseries. This should greatly improve the chances of this species surviving in our region. - Our Seed Collector - Jude Tisdall

DoC resources are available at: <https://www.doc.govt.nz/get-involved/run-a-project/restoration-advice/native-plant-restoration/>

Neomyrtus pedunculata photos care of nzcpn.org.nz

What's happening in our community:

Morrinsville River Walk Clean-up project

The project is continuing in 2021.. Fortnightly weed busting down by the river.

For more information please contact:

milan@thelateraline.com

For more information about the Piako Catchment Forum have a look at:

www.piakocatchment.co.nz

www.facebook.com/PiakoCatchmentForum/

www.instagram.com/piakocatchmentforum/

Or email:

piakocatchment@gmail.com

Training citizen scientists to preserve the Piako's floodplain forest gems

On Saturday the 16th of February, 18 budding citizen scientist volunteers attended a training workshop on kahikatea forest health assessment led by Dr. Norm Mason at Hawes Bush Waharoa. The Waikato Regional Council has developed the "Kahikatea Green Wheel" tool to support landowners and community groups in monitoring the health of kahikatea forest ecosystems, but as this tool has not been officially released, it is not being used widely yet. The training day was intended to increase community capacity for forest health assessment by promoting the green wheel and training citizen scientists to use it.



Norm explaining the finer points of plant identification to the group. Very few people would consider themselves expert botanists. None-the-less, most people know more plants than they might realise, and can learn to identify most of the common species in kahikatea forests with a few simple tricks and a bit of practice.

Kahikatea forest in the Piako occupies ~1% of its prehuman area. Most kahikatea remnants occur on private land. Their survival is threatened by weeds, pests, and canopy collapse due to their small size (almost all remnants cover less than two hectares each). Protecting kahikatea forests is a priority under the Waikato Regional Council's Regional Policy Statement section 11.1 "Maintain or enhance indigenous biodiversity"; especially for "...indigenous vegetation or habitat type that is under-represented (20% or less of its known or likely original extent remaining)..."

Kahikatea forest remnants comprise a major component of remaining native lowland habitat in the Piako, provide nuclei of existing habitat for future landscape-scale restoration and are a reservoir of genetic diversity for eco-sourcing seeds of native plants. These forests support a range of iconic native animal species, including the nationally critical long-tailed bat, overwintering kākā and kereru, tui, fantails, grey warblers, kingfishers and shining cuckoo. They also provide multiple benefits for aquatic ecosystems. Shade reduces river temperatures and invasive aquatic plants while bank stabilisation by tree roots reduces sediment loading, which protects the sandy stream beds required by native freshwater mussels (kākahi) and native aquatic insects.

Despite the importance of kahikatea forests, there is a real lack of on-the-ground support for landowners to protect them. The Piako Catchment Forum hopes to increase community support for landowners in protecting and enhancing their kahikatea forests.



The training day finished with the group providing suggestions for the green wheel to co-creator Karen Denyer (seated at the centre of the table). We also looked at how the green wheel allows us to measure the gains in forest health, using the weed removal and native planting efforts of the Friends of Hawes Bush as an example.

The first step in this process is to conduct baseline forest health assessments to support the development of management plans for as many of the kahikatea forest remnants in the Piako as possible. Training days like the one held on Saturday at Hawes Bush are vital for growing the pool of citizen scientists, without whom these baseline forest health assessments will probably never happen.

Most aspects of the tool are straightforward. The big stumbling block is the need for high levels of plant identification knowledge to produce plant species lists for each remnant. Since this expertise appears to be thin on the ground in the rural areas of the Waikato, we trialled a scenario where teams of 2-3 people with some plant knowledge compiled plant species lists with the help of a consulting botanist (i.e. Norm). Most indicators based on plant identification did not vary much across teams, suggesting that this will be a good option for completing a large number of green wheel assessments to a consistent standard.

Once the baseline assessments are done, the plan is to sit down with willing landowners to develop restoration plans for individual forest remnants. Having these plans in place will be huge help for landowners when applying for funding – either separately or as a collective - to fix fences, kill weeds and pests, or buy native seedlings for restoration planting.

If you are interested in attending future training days, or have a kahikatea forest on your land and want more information on how to protect it, please don't hesitate to get in touch with Norm: e-mail: masonn@landcareresearch.co.nz or phone: 021 153 5031

Backyard Wētā

This month our steering group member Jude Tisdall found four tree wētā in her pizza oven— what an awesome surprise!

So here are some cool weird wētā facts:



- One species of tree wētā, *Hemideina maori*, the mountain stone wētā, can withstand being frozen at temperatures below -10°C.

- Wētā have to shed their hard outer exoskeleton 10 or more times as they grow to adulthood.

- Wētā ears are on their front legs, just below the knee joint.

- Large wētā filled the role of rats and mice before humans populated Aotearoa.

- Wētā have been around for 190 million years – longer than tuatara.

- Wētā are the old fellas in the insect world, living longer than most. Some spend up to 2 years as a juvenile and then live for another 2 years as an adult.

- The Raukūmara tusked wētā was not discovered until 1996. It dives into streams when threatened and can stay there for 3 minutes.

(Information thanks to the Science Learning Hub - <https://www.sciencelearn.org.nz/>)

If you want to encourage these amazing creatures into your own backyard check out our education sheet on wētā hotels - See our website at: www.piakocatchmentforum.co.nz/piako-tamariki-kaitiaki/

