

KAURI RESCUE



Kauri Rescue or Community Control of Kauri Dieback: Tiaki Kauri

..is a two year project funded by the National Science Biological Heritage Challenge, which engages the public in refining tools for the treatment of kauri dieback disease that is decimating northern kauri forests.



Embracing Vision Mātauranga

The Kauri Rescue project is one of 16 New Zealand Biological Heritage National Science Challenge projects (<http://www.biologicalheritage.nz/>). Of the National Science Challenges, Biological Heritage is the only Challenge that established co-management from the outset and ensured mātauranga (knowledge) was a strategic priority. Mātauranga Māori has been interwoven across all three of Biological Heritage's science programmes and furthermore has supported three Māori led research projects specifically dedicated to ensure Māori innovation, solutions are an integral part of its ambitious and transformational research.

Kauri Rescue recognises the significance of kauri, a taonga to Māori and the implications that the demise of kauri and kauri forests will have on Māori culture and traditions. Mātauranga in this project respects the cultural authority of mana whenua with their kauri and the importance of enabling mana whenua and kaitiaki to provide mātauranga solutions to address the infection of kauri dieback in their forests.

The Kauri Rescue Team have been ambitious to not only embrace the use of phosphite to halt the potential demise and extinction of our kauri forests, we are actively looking for solutions to kauri dieback from our mana whenua, community and science networks. We are working with Māori to utilise traditions and practice to inform solutions that may stop the spread of the kauri dieback or eradicate the pathogen from our kauri forests. Māori are intimate with kauri and kauri forests. This historical and traditional relationship informs decisions that ensure the 'balance' of nature. The introduction of incursions such as kauri dieback, create an imbalance to the natural balance of the forest.

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National
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Challenges

NEW ZEALAND'S
BIOLOGICAL
HERITAGE

Ngā Kaiora
Tuku Iho



Kaitautoko – community & science working together

Embracing Vision Mātauranga (cont'd)

Kauri Rescue has also considered the implications of introducing western science ideology and solutions with the potential to re-shape Māori traditions and culture, with respect to their kaitiaki of kauri and kauri ngahere ('forests'), and have incorporated an enquiry of these potential implications in a cultural impact assessment which will consider a Māori context to using non-traditional solutions to save taonga species, with respect to their tikanga ('traditional practices') and kaitiaki ('cultural authority') of their kauri forests.

Another key component of our work utilises tohu or traditional ecological indicators, to determine the health or dis-ease of our kauri and kauri forests. Initial discussions have successfully considered kauri cultural indicators that are being used alongside ecological indicators. We are excited by the conversations that we are having with mana whenua and are encouraged by the sharing of knowledge that has been transferred intergenerationally, based on observation and an interconnected relationship between Māori and their forests, their land, their environment. In the short time since the project began, mana whenua working with our project team have identified a number of kauri tohu that indicate the health of kauri and kauri forests and also, potential presence and absence of kauri dieback.

Kauri Rescue participants are using tohu that indicate kauri health alongside other ecological indicators to monitor the health of their phosphite treated kauri. These tohu will continue to be used throughout the course of the project with the hope that these discussions will inform further developments that provide alternative mātauranga solutions to phosphite.

P. agathidicida is not the only phytophthora affecting our forests, but as the Kauri Rescue raises the awareness of kauri dieback in our kauri forests, more of mana whenua and communities are working not only to eradicate and/or manage kauri dieback, but also paying attention to those kauri that are not infected, and a shift of focus to recognise healthy and resilient kauri forests, working with community to sustain our kauri forests for future generations.

Join Kauri Rescue

If you know or suspect that you have kauri dieback on your residential or rural property in Northland, Auckland or Coromandel, you can join the project as a participant. We provide a free assessment of your kauri tree(s) and soil to confirm Kauri Dieback. We can arrange for this to be undertaken at no cost through your Council as only sites with confirmed kauri dieback can be included in the Kauri Rescue trial. You can also ...

- Sign up to receive our newsletter
- Join us on social media
- Become a Kauri Rescue Ambassador

Find out more about all these options for joining Kauri Rescue by visiting <http://www.kaurirescue.org.nz>



What is the data revealing so far...

Kauri Rescue participants are already contributing to the science programme that underlies this project, by collecting and submitting their data online. By doing this we are able to refine the understanding and protocols around the use of phosphite as a reliable treatment for trees affected by dieback.

The first six participants in the Kauri Rescue treatment trial (the pilot group) treated their trees during March/April this year. Since then many other people have treated their trees, while others have joined the programme but have not yet treated, with more people expressing an interest in joining the programme every week.

Already the data that is being entered online is starting to reveal interesting information:

- Individual landowners have from 2 to 68 treated trees in their trials
- Tree girths range from 20 to 448 cm (that's 1.4 m diameter!), though most trial trees are between 70 to 170 cm girth (up to about 50 cm diameter)
- Almost all trees in the trials are in kauri-dominated (71%) or mixed native forest (24%).
- Just under half of the trial trees are showing canopy symptoms, and 42% were recorded as having basal bleeds.
- People were given a choice of treating with a high or low concentration of phosphite, or leaving trees untreated. So far 63% of trees were treated with a high concentration, 31% with the low concentration, with just 6% of trees left untreated. It's quite understandable that people want to treat most of their trees, but for experimental purposes it's useful to have a few untreated trees for comparison.

Members of the pilot group are currently doing their first re-assessment of tree health, six months since applying the treatments. We're all looking forward to seeing what they find. Watch out for details in the next newsletter.



In addition to data collection, participants are assisting with fine-tuning the tools in the Kauri Rescue participant kit.

Andre (*above photo*) one of the pilot group members is working with social scientist Marie McEntee to refine the injector to make it easier to use as it is very stiff. A proof of concept was developed and this was further refined by Andre. This is now being moved to a prototype, which once reviewed by Andre and others in the pilot group will be trialed in the field. Kauri Rescue seeks to work together with our community partners and in so doing, combine scientific and community knowledge to rescue Kauri. As we say – kaitautoko – community and science working together.

Videos and More...

Mels Barton and a team of students from AUT have now completed the PR campaign using social media. They filmed a one-minute video “advert” to



recruit new Ambassadors and this has been viewed over 4800 times and shared 54 times on Facebook. It is also being screened prior to the main film at the FLICKS Titirangi weekly movie nights. In addition the students persuaded Mels to do a live feed question and answer session on Facebook. This was watched by 217 people live and has since been viewed

over 1000 times as it remains on our Facebook Page where you can view it <https://www.facebook.com/kaurirescue/> We will definitely do this again and have learned that using video is a great way to connect with people.

Community Outreach

Mels has been out and about spreading the word about Kauri Rescue and has recently had our display in Glenfield Library on Auckland’s North Shore, where she also gave a talk that was well received. She was also invited to be the after dinner speaker at the Bioblitz hosted by the Friends of Whatipu. Over 40 scientists and a bunch of eager students were delighted to hear about the project and learn more about kauri dieback disease. In August our display spent a



a couple of weeks in Piha Library and Mels gave a talk to a very interested group of locals who spent about an hour asking questions and discussing the issues. Also in August we had a stall at the McCahon House kauri event and talked to a lot of people coming to collect their McCahon kauri seedlings. Our monthly stalls at the Titirangi Village Market have been going well and we have a committed team of Ambassadors who are helping us talk to the locals. Our Ambassadors have also been out doorknocking a number of streets in Titirangi looking for new participants. We have been targeting streets with a lot of unhealthy looking trees and the uptake has been very encouraging. It is inspiring to be able to offer some hope to people desperately worried about their trees. If you’d like to help us with any of our outreach work we’d love to hear from you! Sign up to be an Ambassador on our website at

<http://www.kaurirescue.org.nz/newsreel/join-the-team>.

Kauri Rescue Ambassadors



*Ambassadors from left to right:
Catharine Dawson & son Thomas,
Ngaire Kingsbury out door-knocking
in Titirangi.*

Caring for Kauri Hui



Following the fire at the Titirangi War Memorial Hall we had to quickly find a new venue for our Caring for Kauri Hui in August and the Waiatarua Residents & Ratepayers Association came to the rescue by offering us their hall at Waiatarua for free - legends! It turned out to be the perfect venue for the event which was well attended by an extremely engaged audience. We heard from Dr Nick Waipara about the ecology of kauri and how to keep them healthy, as well as the factors that negatively affect their ability to fight diseases like *Phytophthora agathadicida* which causes kauri dieback disease. Dr Ian Horner spoke about his phosphite research work and the Kauri Rescue project's role in testing dose rates for treating sick trees. The conversations, questions and discussion went on long

into the night. Thanks again to the Waiatarua R&R for having us.

Angie's Kauri Art – Communicating a message of Kauri Dieback through Art

One day at the Titirangi market we were approached by Angie Rudland Wood who said she'd done some artwork using kauri dieback as a theme for her Unitec Certificate of Design and Visual Arts and would we be interested in using it. Fascinated by what this might be we said yes and have been overwhelmed by the portfolio of work she presented to us to use as we saw fit. We first displayed Angie's work at the Hui in Waiatarua and we liked it so much we then took it to Whangarei and displayed it at our Northland Launch. In both instances it has been a focus for discussion and brought a beautiful but thought-provoking angle to what might otherwise have been rather dry and academic events. Angie's work challenges the viewer to consider the implications of kauri dieback for us - will we be queuing up to view the "Last Tree Standing" in its display jar one day on our "Day Trip to the Tree"? It asks us what our role will be, are we "Visitor or Villain" and "What ya Gonna Do?" The homeless ruru babies with their suitcases in "Accommodation Needed" and "Last Man Last Frog last Tree Gone" show us the outcome of doing nothing. The splendour of what we have and why we should treasure it is vividly displayed in "The Kauri Temple" and "Kauri Spirit". We can't thank Angie enough for lending us her fabulous portfolio and we will continue to find opportunities to display Angie's work at our events. If you'd like to host us please get in touch at admin@kaurirescue.org.nz



University of Auckland Students use Kauri Rescue as a Case Study

Kauri Rescue was chosen this year as a case study for undergraduates students - both science and social science to learn about community engagement. Students from the stage 3 course, **Engaging in a Knowledge Society**, came to Titirangi in late August to engage with the Kauri Rescue's participants and to experience the



community of Titirangi at the village market. The course focuses on community engagement and teaches students the principles of engaging with and in communities. The aim is that students, many of who are science students, will learn the importance of valuing the role that communities can play in projects where the outcomes will likely affect those communities. Students learn about the importance of including local community members in decision-making and recognising the value that different types of knowledge - including local and traditional knowledge can bring to project conversations. Kauri Rescue's social scientist Marie McEntee, who coordinates the course, said "the best way to enable students to learn about community engagement is not in lecture theatres but out engaging in the community". This year Marie was joined by Dr

Sara MacBride-Stewart, a social scientist from Cardiff University, who is undertaking research on people's responses to biosecurity measures.

Kauri Rescue Teams Up with the Arborist Industry Group



Kauri Rescue recently joined the Arborist Industry Group and the Tree Council, on an arborists walk in the Waitakere Ranges, so that we could spread the message of Kauri Rescue and kauri dieback to arborists who are engaging daily with land owners affected by dieback, or concerned at protecting their trees from dieback. The walk, organised by Fredrik (Freddie) Hjelm saw over 40 arborists learn protocols around managing dieback infected trees, find out about symptoms of dieback and hear Kauri Rescue's message about encouraging affected landowners to join the project.