

Wairuakohu Project Pānui

RAUMATI 2025

zoom.us

Tēnā tātou, ngā kaitiaki ō te waonui ā Tāne - welcome to our first Wairuakohu project pānui!

Ngaati Hauaa, Ngāti Hinerangi and Te Kawerau-a-Maki have been working with three companies for a few years on an exciting kaupapa that we want to share with our iwi members and others. Our three iwi along with Rua Bioscience Limited, Plant & Food Research, and IO Limited have been studying the tiny indigenous bryophyte known as *wairuakohu*, or *Radula marginata*.

This iwi-led research consortium has discovered that this taonga in our ngahere contains compounds similar to THC (tetrahydrocannabinol) and CBD (cannabidiol) - molecules both found in cannabis, and these newly discovered molecules may be used to develop valuable medicines and health products.

Our poutiaki, along with other researchers, collected wairuakohu specimens across three locations over several seasons, as well as taking samples from plants grown under controlled indoor conditions. Chemical analysis identified significant concentrations of perrottetinene (PET), a compound structurally similar to THC previously identified in *Radula* species, as well as a compound previously undiscovered in nature, perrottetinenediol (PTD), a molecule almost identical to CBD.

Research published by a team of Swiss scientists that we are working with, showed that PET binds to receptors in the brain similar to THC but without the psychoactive side effects. Our research team discovery of PTD is very exciting, and we have been undertaking a range of studies with both PET and CBD to identify what medical or health benefits they may provide for humans and animals.

This pānui provides updates on other parts of the project and the poutiaki for each iwi can provide more details.



Project kaimahi (L-R): Mohi Korohina (Ngāti Hinerangi); Manu Caddie (IO Ltd); Kathryn Jansen (Ngāti Hinerangi); Taari Nicholas (Ngaati Hauaa); John Te Maru (Ngaati Hauaa). Absent: Pita Turei (Te Kawerau-a-Maki)



Our research team successfully propagated Wairuakohu in controlled environments to find the optimal temperature, lighting and nutrients. The plant grows incredibly slowly so could never be used commercially.



Ngāti Hinerangi



RUA
BIOSCIENCE



World-leading Wairuakohu Charitable Trust established

Poutiaki from the three iwi along with representatives from the other project partners, have spent the past three years considering how best to protect the taonga and Te Taiao as we move forward with the research.

In the absence of an explicit legal framework for biodiscovery involving taonga species (see the note on WAI262 on the next page), the project team has explored a range of legal structures that ensure mātauranga Māori is identified and protected. We have also considered the mātauranga held by the plant itself and what rights the taonga and Te Taiao have to be kaitiaki of themselves. We have also thought about what fair and just benefit-sharing could look like if the project develops Intellectual Property that can be used in the creation of new products and processes, especially considering the significant investments made in the project to date and more resourcing that will be required if it goes much further.

After many hui with the project team and consulting Māori lawyers and commercialisation experts, it was agreed that a Charitable Trust should be established that will act in the interests of the taonga and Te Taiao, as well as ensuring the rights and responsibilities of mana whenua are properly taken into account in all key decisions.

This is a world-leading arrangement where Indigenous Peoples have created a legal entity to represent the interests of the taonga and the ecosystem that has nurtured it for millions of years. The poutiaki considered whether the commercial agreement with the other partners should include the iwi entities as beneficiaries, but made the decision that any financial benefits should be vested in Te Taiao and the protection of the taonga. This structure is being looked to by Crown agencies and other Māori-led research initiatives with commercial potential as a taura or model for how to manage kaitiaki rights and responsibilities alongside the interests of investors who need certainty to put their money and time into such innovative kaupapa.

So we have now established an entity to represent those kaitiaki interests – to be a voice for the taonga and to share in any future benefits that come from utilising information contained in the plant.

The Wairuakohu Charitable Trust has been established with the following purpose:

“To preserve, protect and nurture taonga, Papatūānuku and the environment for their benefit and for the benefit of tangata whenua iwi and hapū...”

A set of guiding principles are also included in the Deed:

- (a) *the Trustees will provide for the stewardship of the Taonga and the ecosystems that support the Taonga growing in the wild;*
- (b) *the mana and cultural and ecological values of the Taonga should be actively preserved, competently managed, enhanced, and defended everywhere for the benefit of firstly the species, secondly the ecosystems that have supported it, thirdly for the kaitiaki groups with rights and responsibilities for the Taonga, and fourthly for all citizens of Aotearoa New Zealand;*
- (c) *prompt and effective action should be taken against misappropriation of Taonga, including information derived from it, wherever this may occur;*
- (d) *opportunities should be sought to preserve, restore, and enhance the natural environment of Aotearoa New Zealand, particularly in areas where the Taonga is found in the wild;*
- (e) *the public, including businesses, researchers, patients and consumers abroad, should be educated as to the scientific, therapeutic, cultural, spiritual, ecological and traditional association of Tangata Whenua with the Taonga;*
- (f) *opportunities should be sought to relieve poverty in economically deprived areas and communities within Aotearoa New Zealand.*

Ngaati Hauaa, Ngāti Hinerangi and Te Kawerau-a-Maki nominated one individual each to be the first trustees of the Wairuakohu Charitable Trust: John Te Maru (Ngaati Hauaa), Kathryn Jansen (Ngāti Hinerangi) and Pita Turei (Te Kawerau-a-Maki).



Inaugural trustees of the Wairuakohu Charitable Trust: John Te Maru (Ngaati Hauaa), Kathryn Jansen (Ngāti Hinerangi) & Pita Turei (Te Kawerau-a-Maki).



WAIKAKOHU & THE WAI262 CLAIM

Commonly known as the “flora and fauna” claim, the WAI 262 claim, filed in 1991 by six claimants on behalf of all Māori, asserts that the Crown has denied Māori tino rangatiratanga, including ownership, access, and control over taonga and natural resources, leading to cultural and economic dispossession. Key grievances include exclusion from decisions about the conservation and use of native species.

The statement of claim highlights several issues related to bioprospecting with Wairuakohu, especially those concerning indigenous flora and fauna:

- Intellectual property rights and their knowledge in preserving biodiversity and developing eco-ethno ethics;
- The right to participate in, benefit from, and decide on technological advances related to breeding, genetic manipulation, and other processes;
- The right to control and decide on the propagation, development, transport, study, or sale;
- The right to protect, enhance, and transmit cultural, medicinal, and spiritual knowledge of indigenous species;
- The right to environmental well-being through wise use of indigenous flora and fauna;
- The iwi interest in the continued existence of flora and fauna as connected elements of te ao turoa.

In 2011, the Waitangi Tribunal published *Ko Aotearoa Tenei*, examining intellectual property rights, including those related to native species. The Tribunal concluded that Māori knowledge of native species is taonga, guaranteed by tino rangatiratanga. It noted the Crown’s failure to uphold this principle and recommended empowering Māori through kaitiakitanga.

More than a decade later, Māori are still waiting for an official response.

Wairuakohu team member Manu Caddie is working with the WAI262 claimant group and Te Puni Kokiri on developing a Te Tiriti-compliant bioprospecting regulatory framework for Aotearoa.



Opportunities for Students & Iwi

The Wairuakohu project has a wide range of science disciplines, technical challenges, legal issues and commercialisation considerations it is dealing with.

Project partners have supported a number of students to join the mahi by providing paid internships and scholarships for both under-graduates and post-graduates. We also have opportunities for iwi members to visit research facilities and spend time with scientists, legal advisors and business development experts for a day or two.

We’ll be profiling some of the tairua Māori who have worked on aspects of the project over the past few years and encourage anyone to get in touch if you know someone interested in plant science, Indigenous Rights and/or other research and development experiences.

We also have opportunities for whānau to join wānanga as we explore some of the issues the project needs to progress our collective thinking and action on. Just reach out to your iwi poutiaki or contact us via the project website: www.wairuakohu.org



Introducing the Wairuakohu Rangahau Partners

- **Poutiaki** - Three iwi groups have been guiding the research programme: Te Kawerau a Maki, Ngāti Hauā and Ngāti Hinerangi. Rapporteurs and representatives from these poutiaki groups have an active leadership role in the research programme, considering and approving each piece of research and related activity before it can happen. While this research programme to date has had active leadership from three poutiaki partners, we recognise that there are other iwi and hapū with equally legitimate rights and responsibilities as kaitiaki for Wairuakohu and the ecosystems that have supported the taonga. Our collaboration welcomes and encourages expressions of interest from other kaitiaki groups interested in contributing to the kaupapa and sharing in the decision-making going forward.
- **Wairuakohu Charitable Trust** - The taonga has rights and responsibilities for itself and the ecosystem that has nurtured it. We have established an entity to represent those interests – to be a voice for the taonga and to share in any future benefits that come from utilising information contained in the plant.
- **Rua Bioscience Ltd** (NZX:RUA) - Is a company co-founded by Manu Caddie and early on he convinced the company Board to take a risk and invest in the Wairuakohu research. There was close alignment between the research agenda and Rua's commitment to cannabinoid medicines and indigenous innovation. The initial investment by Rua provided a solid platform for subsequent work to proceed and while Rua has focused on other priorities since 2021, the company remains a key partner in the kaupapa.
- **NZ Institute for Plant & Food Research Ltd (PFR)** - PFR is a Crown Research Institute focused mostly on fruit and vegetable crops. PFR was tangentially involved with an earlier *Radula marginata* research collaboration involved Dr Oliver Kayser from the Technical University of Dortmund, but when approached by Manu in 2017, were keen to be involved in collaboration based in Aotearoa. With support from kaitiaki partners and funded by Rua Bioscience initially, PFR led a series of research projects focused on documenting Wairuakohu in the wild, studied the chemistry of the plant in different locations and different seasons, cultivated specimens in controlled environments with experiments designed to find the optimal growing conditions, and worked out how to create tissue culture from spores captured at rare moments of release. PFR subsequently progressed these projects with its own resources invested into the collaboration that also helped reshape the way the organisation works with taonga species and kaitiaki Māori.
- **IO Ltd** - Manu Caddie was the initiator of the research programme in 2017 when he reached out to a group of NZ research institutions to see if there was interest in creating a collaboration focused on Wairuakohu / *Radula marginata*. He has continued involvement through a number of companies and through his company IO Ltd has invested significant funds to cover the three year preclinical research programme being run by the University of Waikato, as well as toxicity studies carried out overseas, pharmaceutical consultants and project management services coordinating all the various stakeholders.



KŌRERO MAI, KUHU MAI!

If you have pātai or want to get in touch about anything, please contact one of the poutiaki (Kathryn, Pita & John) via the respective iwi offices or visit the project website: www.wairuakohu.org - on the website are a number of scientific papers we have published, as well as a short video on the kaupapa and a contact form.