



Te Arawa te waka
Te Moengahau o Tamatekapua me
Motutere oku maunga
Te Tai Tamahine te moana
Pungapunga te awa
Ngati Huarere te iwi

Ngati Pare te hapu Whangapoua te whenua Tihei mauri ora

Ka mau tonu nga taonga tapu o nga matua tupuna

Koinei nga taonga i tuku iho, na te ātua

Hold fast to the treasures of the ancestors For they are the treasures that have been handed down to us by God

# NGA RAKAU TAKETAKE - Saving Our Iconic Trees

Research focusing on addressing and managing myrtle rust and kauri dieback

This approach highlighted the importance of mana whenua engagement with western scientists. The synthesising of information about myrtle rust and kauri dieback enabled Ngati Huarere to apply our own traditional knowledge, practices, solutions and values to restore and protect our taonga thereby ensuring ecosystem resilience.

## Te Whakahononga

Te Whakahononga is a bringing together of mana whenua, NRT researchers and scientists to find a solution to address the pathogens affecting our kauri and native myrtles.

The fortnightly hui hosted and prepared by Waitangi Wood were imperative to the success of this kaupapa and to progress the mahi going forward. Bringing guests on to the forum introduced us to the various Themes and the mahi that lay ahead.



Whangapoua BMA

The Team
Wanda, Lori, Josh and Dakota





**Waitekuri Kauri** https://youtu.be/0L31ndwjgh8



**Taonga Puriri** https://youtu.be/x6UG25rLdxs



**Te Pungapunga Puriri** https://youtu.be/At0pLDdXIzA



**School house bay Pohutakawa** https://youtu.be/qcKZgqXBgcQ

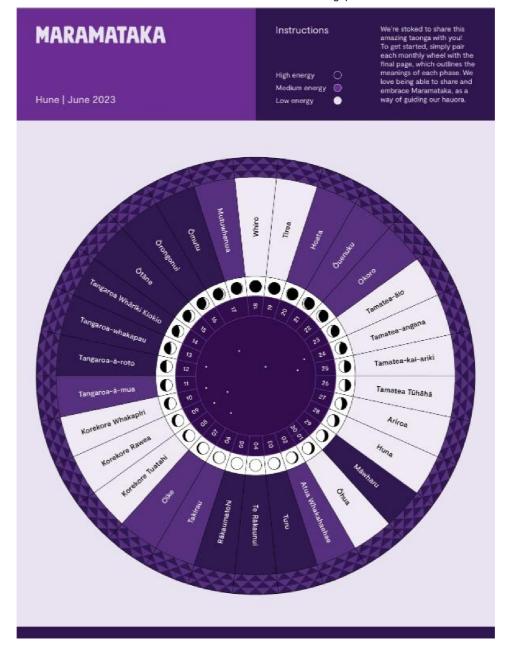
#### https://youtu.be/1cnf89efhpl

#### **HE TOHU**

The He Tohu kaupapa strengthened the maramataka matauranga across the various sectors including mana whenua and scientists.

Engagement with scientists through the different themes was a surprisingly great experience. As we shared matauranga, whanaungatanga inevitably grew and the exchange of information enhanced both parties to increase our knowledge bases.

Integrated Surveillance with Cecilia Latham. Using ARC-GIS Technology for mapping and collecting data was an extremely useful tool for the Ngati Huarere Kaitiaki Tima. The many kanohi ki te kanohi and online hui provided extensive training on how to use the various apps. A very useful part of this engagement was being able to co design the app, ground truth it then go back to Cecilia to make changes to improve on site usage.



An example of the maramataka used for guiding Ngati Huarere in our observations.

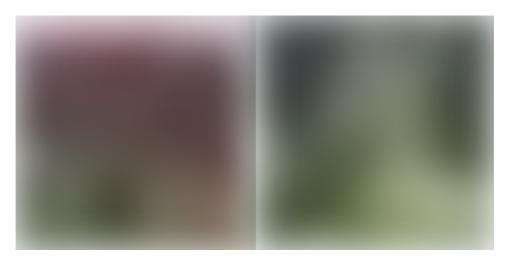
# Soil testing



Whangapoua BMA soil testing

Scientist Luitgard Schwendemann joined our ropu for a day in the ngahere. She demonstrated how to deploy tea bags to do soil testing to understand soil composition around kauri and other rakau. When Luitgard collated the information, it was shared with Ngati Huarere for our records.

## Myrtle rust surveillance



Examples of some of the rakau observed

Roanne Sutherland and Beccy Ganley helped inform and provide a better understanding of myrtle rust. How to recognise it, how to manage our team around it, and how to report on it.

### Hui



Training at Taumata o Kupe - Mahurehure.

Knowledge and capability building through the hui regarding Myrtle Rust surveillance, Maramataka, Kauri monitoring and surveillance. The presenters being both Maori tahonga and western scientists provided a wide spectrum of information to inform our on site investigations and observations.

## Social science and information gathering

Scientist Leane Makey accompanied Ngati Huarere on a number of our He Tohu observations. This engagement was particularly interesting concerning the social science of the overall project. We were able to communicate the value of the mana whenua and western science alliance whereby both parties gained matauranga plus strengthened our own perspectives.

#### Social researcher

Scientist Simon Wegner - Engagement with Simon was interesting in learning how a survey is created and the various factors to be considered by potentially contributing parties. Involvement in the framing of questions and participating in the survey pilot testing gave incredible insight as to what goes into creating a survey. Being able to contribute from a cultural perspective helped give the survey authenticity.

## **Technology**

Gaining knowledge through the hands on use of the various technologies has been immensely useful for us as mana whenua.

The ArcGIS training has provided a substantial platform for our current and future projects. It has been intergrated into multiple kaupapa that Ngati Huarere are invested in. This tool has been a gamechanger across our cultural, environmental and social collaborations with multi agencies and communities.

Debbie Larkin accompanied Waitangi Wood into the Whangapoua BMA to provide Go Pro training. This training enabled 360 recording of our monitoring and surveillance protocols on the whenua without the requirement of an operator being taken out of their kaitiaki role. Having the

ability to observe our mahi allowed us to adapt and better our processes. This tool has benefitted not only Ngati Huarere but also our hapori.

GPS: This tool is great for plotting the huarahi, and rakau being surveilled.

## **Looking forward**

Hopes For The Future: Ngati Huarere would like thank Waitangi Wood and Mark Bullians for being the excellent interface for mana whenua on He Tohu. We would like to continue the He Tohu kaupapa and advance our engagement with scientists and researchers. It has been very valuable connecting with tohunga, other mana whenua as well as the scientific community. The exchange of knowledge and information plus the use of the technologies which were introduced is a journey Ngati Huarere has been very encouraged by. This kind of engagement has not been encountered by us before being that it was a level playing field and their were no masters.

Kia hora te marino Kia whakapapa pounamu te moana Kia tere te kārohirohi i mua i tō huarahi.

May peace be widespread
May the sea glisten like greenstone and
may the shimmer of light guide you on
your way.

