

Mountains to Sea Wānanga 2022

A National Marine
& Freshwater Conference

Rangiora Marae, Takahiwai

Contents

Preface	2
Acknowledgements	4
Day 1 - Introductions	5
Local Orientation with Patuharakeke	6
Takahiwai Marae Stream	6
Pukekauri Dam	6
Keynote Speakers	7
Rereata Makiha - (Te Mahurehure, Ngati Pakau, Ngaitu Teauru, Te Arawa, Rangitane): Maramataka	7
Sheridan Waitai (Ngāti kuri): Building and maintaining partnerships with kaitiaki for research	8
Eimear Egan: Insights into Īnanga life at sea from their ear bones	9
Dr. Irene Middleton: Subtropical vagrants in New Zealand waters	10
Spotlighting	11
Day 2	12
Kim Jones & Samara Nicholas - Mountains to Sea - past, present, and future	12
Show and Tell	13
Kristin Busher & Nathalya Larson - Waiheke Resources Trust Marine Education Initiative	13
Siddharth Ravishankar & Sarah Kachwalla - Love Rimurimu	13
Nicholas Naysmith - Whitebait Connection - Īnanga spawning in the tributaries of the Waipū awa	14
Jude Heath - Tasman Bay Guardians - TBG Nursery Project	14
Lara Taylor (Te Arawa, Kahungunu, Tuwharetoa, Ngai Tahu) - E Oho! / Kairangahau Māori - Enabling Holistic Management - Ki Uta Ki Tai	15
Carys Templer & Jeanine Clarkin - Waiheke Marine Project Kete	15
Jeremy Busck - Dragonfly Springs Wetland Sanctuary	16
Field trips	17
Snorkel at the Reotahi Marine Reserve with EMR	17
Guided tour at the NIWA Hatchery	19
Ruakākā River Riparian Restoration Sites - Northland Īnanga Spawning Project	19
Social Evening	20
Day 3 - Workshop	21
Workshop on Te Kotahitanga — with Carolyn Smith, Ari Carrington, Davina Duke, and Hera Johns	21
Evaluations and Feedback	23

Preface

Ngā maunga ki te moana, Mountains to Sea Conservation Trust (MTSCT), was created in 2002 as a vehicle and guiding entity to enable a team of extremely motivated individuals to effectively communicate marine and freshwater science to NZ communities, involve them in experiencing those environments first-hand and in taking action for it, believing that the end result will be an improved environment and a strong foundational ethic of kaitiakitanga. All via the programmes; Experiencing Marine Reserves (EMR) and Whitebait Connection (WBC).

This is taken from the original trust deed created in 2002 and remains the same today. A Charitable Trust is hereby established for the purpose of achieving the following outcomes.

- a) Environmental educational strategies, programs, resources and community engagement activities will be created, fostered and offered to the community.*
- b) Advocate directly within communities and with Government for the establishment of a system of conservation measures and biodiversity protection areas.*
- c) Support and create opportunities for young environmental professionals to work and engage with schools and communities in environmental education and ecological restoration and conservation management.*
- d) Foster and support the pursuit of scientific research, understanding and traditional knowledge of aquatic ecosystems and biodiversity. Ensure that the results of the research are disseminated in the community.*
- e) Provide technical, scientific assistance to the community, schools and environmental advocacy groups for the purpose of furthering the aims of the Trust.*

Our team has grown and expanded in many ways since 2002 and currently has 8 trustees, 1 patron, 2 co directors and a team of over 40 coordinators delivering EMR and WBC around NZ.

Our whakataukī is

Whakamana te maunga,

Whakamana te wai,

He mauri o ngā tangata.

Ngā mea katoa he pai.

*If we look after the water from
the mountains to the sea,
it will look after us.
It is our life force.*





That's a WHY – there's always a why – the why is one of the key motivating factors that leads thoughts and ideas into action and long-lasting behaviour change. We all have slightly different 'whys' and many connections, things that unite us. Thank you to all those that had a role in what we created on this wānanga – we explored key themes as shown in these proceedings. We also created many non-tangible outcomes – the kind that spur us on and motivate us to keep going. Moments that become powerful memories that don't fade. The 'Why' and making space to connect and be inspired is powerful.

MTSCT has been facilitating wānanga since 2006 for each of our programmes, then in 2010 we combined resources to run the EMR and WBC annual coordinator training events as one and invite a wider range of people – making it a mountains to sea focus, always with a different theme.

Last year's theme; Partnerships, couldn't have come at a better time. After what felt like a very isolating year in 2020, this wānanga explored the importance of collaboration with partners and allowed everyone to reconnect with others around the country. The theme this year was kotahitanga which resonated strongly with the mahi we do collectively to empower action for nature.

We very much look forward to the next wānanga which will be held in Wellington in April 2023.

[Contact List from the Wānanga](#)

[Video from the Wānanga](#)

[Photographs - Google Photos](#)

Acknowledgements

Thank you for making this wānanga possible.



**FOUNDATION
NORTH**
*Pūtea Hāpai Oranga
Funding to Enhance Lives*



Ministry for the
Environment
Manatū Mō Te Taiao



The Tindall Foundation
Contributing to a stronger New Zealand

A big thank you also goes out to:

NIWA, Oceandiversity Sea Adventures, Cronin Fishing Charters, The Porthouse Bar and Eatery, DJ Koha, Wednesday Davis (Quiz Master extraordinaire), Davina Duke and Hera Johns (Uru Shack), Luana Pirihi, Ruakākā Scout Den, Dive! Tutukaka, Tasman Bay Guardians, He Awa Ora, He Tai Ora, Healthy Rivers, Living Sea, Mountains to Sea Wellington, EOS Ecology Participatory Science & Engagement, Northland Regional Council, Carolyn Smith, MTF Finance, and NZAEE.

A special thank you to the haukāinga – Patuharakeke for hosting us. Thank you to Francida and Maria Lawton for the yummy brain and soul food.

WĀNANGA PROCEEDINGS

Day 1 - Introductions

We were given a warm pōwhiri welcome onto Rangiora marae and were made to feel like whānau by Patuharakeke. It was clear from the beginning, the whanau had big hearts, wanted to share their taonga with us, and had enthusiasm for reciprocal learning.

The theme for the wānanga was 'Kotahitanga'. This theme resonated strongly with the mahi we do collectively and allowed us to discuss the bringing together of diverse worldview, beliefs, values, and strengths to empower action for nature.

After an introduction from the haukāinga we did a round of whakawhanaungatanga and a unique bingo game which allowed us to learn more about each other.



Local Orientation with Patuharakeke

After a morning of travel and introductions we headed off in groups to check out some of the nearby freshwater environments.

Takahiwai Marae Stream

One group of wānanga participants walked down to the stream by the marae and looked at the īnanga spawning bench. There were discussions around the restoration that has been occurring along the spawning area. They were lucky enough to observe some īnanga eggs in the grass beside the stream. Patuharakeke have been involved in restoring the spawning area and have been working with the community to do riparian planting.



Pukekauri Dam

Another group of wānanga participants were escorted to the Pukekauri dam led by the Patuharakeke Taiao Unit. The land in which the dam sits was taken under the public works act in the 1960's and the dam was created for water supply to the Marsden refinery. However, the dam was never used for this purpose.

The Pukekauri dam is valued by Patuharakeke as a home to many taonga and as a place for recreation. It is aimed for the dam and the surrounding ngāhere to be returned to Patuharakeke in the near future.



Keynote Speakers

Rereata Makiha - (Te Mahurehure, Ngati Pakau, Ngaitu Teauru, Te Arawa, Rangitane): Maramataka

[Youtube Video link](#)



Matua Rereata Makiha is a renowned Māori astrologer and a leading authority on the maramataka - the Māori lunar calendar - as well as traditional food planting and harvesting practices and kōrero tuku iho, or Māori history, handed down through generations. We were lucky to have Matua Rereata impart some of his wisdom to us about maramataka and living in tune with te taiao.

Sheridan Waitai (Ngāti kuri): Building and maintaining partnerships with kaitiaki for research involving taonga species

[Youtube Video link](#)

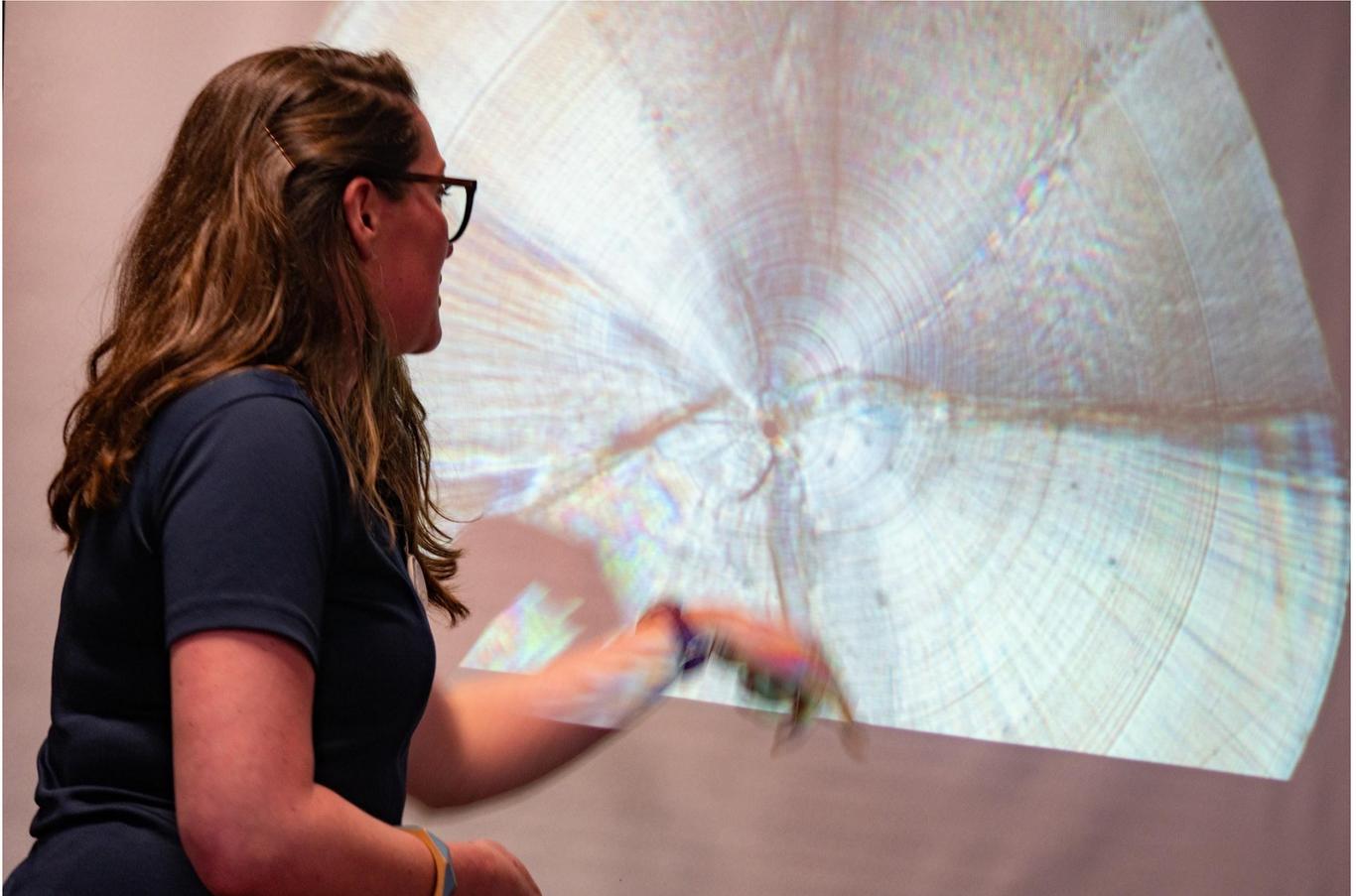


Sheridan grew up in Te Hiku o te Ika. She has significant experience in legislation and the policy environment in relation to indigenous issues. She has contributed to environmental, social, education, and health initiatives on many levels. She has participated on several boards and has experience in the management of forums, governance, and strategy groups. Sheridan has been instrumental in the continuation of the Wai 262 Fauna and Flora Claim for Ngāti Kuri. She has maintained the relationship with other claimant whānau and iwi over many years that has resulted in a work programme nationally for Māori to Māori engagement. In her kōrero Sheridan discussed some of the taiao based initiatives Ngāti Kuri are working on and provided some insights and recommendations in relation to the Wai 262 claim. Sheridan recommended the Rauika Mangai publication: [A Wai 262 Best Practice Guide for Science Partnerships with Kaitiaki for Research Involving Taonga](#). This best practice guide on Wai 262 provides a baseline for how scientists and researchers can best work with Māori.

Eimear Egan: Insights into īnanga life at sea from their ear bones and potential climate change impacts

[Presentation PDF](#)

[Youtube Video link](#)



Eimear is a freshwater fish ecologist with [NIWA](#). She shared her research about understanding the marine life of our taonga whitebait species (*Galaxias maculatus*) from studying their ear bones (otoliths). She also spoke about the recent [Taonga Species Climate Change Vulnerability Assessment](#) commissioned by [Te Wai Māori Trust](#), and discussed some of the findings for the whitebait species.

Dr. Irene Middleton: Subtropical vagrants in New Zealand waters and what this means for our future

[Youtube Video link](#)



Irene is a Marine Ecologist at [NIWA](#). She works on, and leads, marine biosecurity, ecology, and fisheries projects. Irene completed a Ph.D. at Massey University where she worked together with oceangoing citizen scientists including fishers, divers, underwater photographers, and spearfishers to track tropical fishes in New Zealand waters. In her presentation Irene talked to us about this research. Irene is an incredibly passionate scuba diver, ocean swimmer, and an award-winning nature photographer specialising in underwater photography. Her work has been featured in local and international magazines, online blogs, scientific literature, and conservation publications.

Spotlighting



After a long day some wānanga participants went down to the Takahiwai marae stream for some fish spotlighting. A diverse range of species were observed including banded kōkopu, īnanga, a variety of bullies, whitebait, kēwai and a friendly tuna.



Day 2

Kim Jones & Samara Nicholas - Mountains to Sea - past, present, and future

[Presentation PDF](#)



The theme of this year's wānanga, 'kotahitanga,' is a key concept that has driven MTSCT forward over the past 21 years. In their presentation Kim and Samara reflected on the past and gave insights into the present and future expansion of MTSCT across Aotearoa. One key message in their presentation was that collaboration with partners, supporters, and mana whenua has been key to this growth and success. Kim and Samara drew on the values that have guided MTSCT over the past 21 years:

- Collaboration
- Empowerment and innovation
- Honouring Te Tiriti O Waitangi
- Integrity & Aroha
- Fun & passion
- Community centred conservation
- Connecting people to te taiao
- Let our mahi tell our story
- Pono
- Open source

In regards to the future of MTSCT the Wai Connection programme was announced. The Wai Connection programme is part of the Ministry for the Environment's Essential Freshwater Package and will see MTSCT assisting Regional Councils to successfully implement the Essential Freshwater Reforms in partnership with the community. This project will support further expansion of MTSCT across Aotearoa.

Show and Tell

Kristin Busher & Nathalya Larson - Waiheke Resources Trust Marine Education Initiative

[Presentation PDF](#)



In their show and tell presentation Kristin and Nathalya discussed the work they do associated with the [Waiheke Resources Trust Marine Education Initiative](#). At the end of their presentation they showed us their amazing dashboard which visually and statistically summarises their mahi to date.

Siddharth Ravishankar & Sarah Kachwalla - Love Rimurimu

[Presentation PDF](#)



[Love Rimurimu](#) is a programme run by [Mountains to Sea Wellington](#) and builds on the EMR programme. This community-led, collaborative project aims to regenerate Wellington's underwater forests. In their presentation Siddharth and Sarah discussed some of the work they are currently undertaking growing seaweed. They also discussed the education component of the programme which teaches students about seaweed and connects them to their local environment.

Nicholas Naysmith - Whitebait Connection - Īnanga spawning in the tributaries of the Waipū awa

[Presentation PDF](#)



Nic is the Northland Regional Coordinator for WBC and lead coordinator in Northland for the Northland Īnanga Spawning Habitat Restoration Project (NISHRP) focussing on awa in the Bream Bay Catchment. He gave a talk on the status of Īnanga spawning in tributaries of the Waipū river. In another exciting year for NISHRP Nic and the taiao team from Patuharakeke have documented, for the first time, Īnanga spawning along the reaches of the Pohuenui, the Ahuroa, and the Mill Brook awa. Nic gave a brief overview of the newly created NISP (National Īnanga Spawning Project) online data collection software and hub, and explained how this new tool is hugely helpful in the collection, and collation, of data in realtime and in the field.

Jude Heath - Tasman Bay Guardians - TBG Nursery Project

[Youtube Video link](#)



[Tasman Bay Guardians](#) deliver the MTSCCT programmes in the Tasman district. Jude discussed the Nurture Nature programme they are collaborating on with MoTec which is funded by the Rātā Foundation. MoTec was set up to deliver technology education to 14 schools across the Tasman district. They have established a native nursery and a seed bank to create connections with community organisations. In the Nurture Nature project students learn about their environment and follow the plants from a seed till they are planted out for local restoration projects.

Lara Taylor (Te Arawa, Kahungunu, Tuwharetoa, Ngai Tahu) - E Oho! / Kairangahau Māori - Enabling Holistic Management - Ki Uta Ki Tai

[Presentation PDF](#)



Lara works for Manaaki Whenua - Landcare Research. She currently co-leads the 3 year project: Enabling Kaitiakitanga and EBM which is part of the Sustainable Seas national science challenge. As part of the project an advisory group made up of representatives from different spheres of influence (policy and crown agencies, māori fisheries, hapū) guides the project's mahi. The project is now in its third year with a focus on creating a toolkit of guidance, strategies and information to better enable co-governance and co-management across Aotearoa. For the wānanga this year and last year Lara has brought along posters for us to add initiatives and comments onto.

This is contributing towards the project and enabling kaitiakitanga and ecosystem based management.

Carys Templer & Jeanine Clarkin - Waiheke Marine Project Kete

[Youtube video link](#)



In their show and tell Carys and Jeanine gave us more insight into the mahi they are doing as part of the [Waiheke Marine Project](#). A kete filled with pipi shells with project values written on them were used to summarise the project through a game of charades.

Jeremy Busck - Dragonfly Springs Wetland Sanctuary

[Youtube video link](#)

[Video link](#)



[Dragonfly Springs Wetland Sanctuary](#) was started by Jeremy in 2007. In the late 1990's he and his wife purchased the wetland, to hold as a wetland sanctuary. They wanted to show the government the importance of stormwater management and chose to lead by example. With assistance from volunteers, supporters, and local businesses, Jeremy began the task of restoring and preserving the wetlands. He has brought Dragonfly Springs back up to a fully functioning natural wetland. In his show and tell Jeremy talked to us about the journey to developing Dragonfly Springs and how it is now utilised as a place of education.



Field trips

After listening to all the amazing mahi that is happening across the country, it was time to check out the local area on our field trips.

Snorkel at the Reotahi Marine Reserve with EMR



The Whangarei Harbour Marine Reserve is now 16 years old and was established by Kamo High School. From 1990 to 2004, more than one thousand Kamo High School (KHS) Year 13 geography students worked on the Whangarei Harbour Marine Reserve Proposal. It is believed to be the first no-take marine reserve application by a school in the world.

The students consulted with a large number of organisations, the public, Tangata Whenua and worked hard to gather

information to improve their proposal, seeking expert advice from the likes of the late Dr Bill Ballantine and Wade Doak.

The late Dr Bill Ballantine was engaged in fieldwork teaching in the Whangarei Harbour with Auckland University students. He welcomed the efforts of KHS to promote marine reserves in the harbour and

strongly supported their application. Dr Ballantine regarded Motukaroro's southern shore as the best example of zonation seen on an accessible rocky shore anywhere in the world.

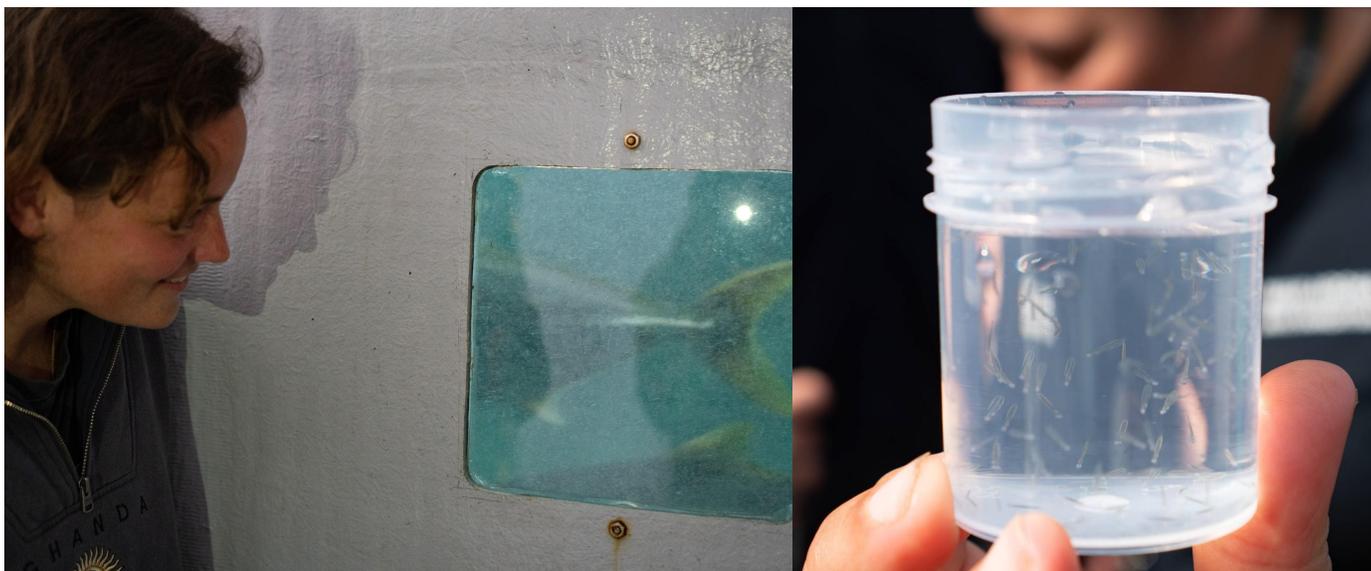
The majority of snorkel experiences take place along the Reotahi shore line, where influence of current and tidal movement is much less. Triplefins, nudibranchs and large grey mullet are often observed. . While on the southern side of Motukaroro Island, the reef plunges 30m to the deep-water channel of the Whangarei Harbour. The combination of deeper water and swift current flows has produced a diverse reef-fish assemblage. Experiencing Marine Reserves (EMR) is bringing schools from all over Northland to this reserve.

During our snorkel we completed an ecological assessment to report on meaningful metrics of ecosystem health which will be used to help monitor changes in local environments and assist in decision making in conservation spaces. The notable species on our snorkel was a scallop. Unfortunately there is a incursion of Sabella within the reserve. We are working with DOC and NRC to address this issue. We also uploaded our underwater images to iNaturalist, making the recorded data open-access and available to all.



Guided tour at the NIWA Hatchery

We were treated to a guided tour of the [NIWA Hatchery](#) in Ruakākā by Steve Pether and his team. During the tour we were given some insights into the work NIWA is doing to support the advancement of New Zealand's growing aquaculture sector through the development of high value products of verifiable quality and sustainability. The facilities we observed are used to conduct research and work with commercial clients to design and manage marine operations that optimise sustainable aquaculture production and meet high environmental and quality certification standards. Highlights of the tour included visiting the Kingfish hatchery, and the Kingfish and Hapuka tanks.



Ruakākā River Riparian Restoration Sites - Northland Īnanga Spawning Habitat Restoration Project



Wānanga participants were given the opportunity to visit an Īnanga spawning and restoration site on the Ruakākā awa. Nic described the attributes of the area, and why the Īnanga are spawning there, the efforts that have gone into the protection and restoration effort, including funding for fencing to exclude livestock, and the planting of 2500 natives plants and trees along 250m of river bank. The plants will provide shade to the river, will mitigate runoff, will slow erosion, will add much needed plant biodiversity to the area, and will attract birds and insects. The planting mahi was a community effort involving hapū, local school children, local residents, NorthTec students, staff from DoC, MfE, and our own trust board members.

Social Evening



After drying off from the day's adventures, we indulged in a social evening hosted by the Porthouse Bar and Eatery. Entertainment was provided by our very own DJ Koha and our knowledge was put to the test with a fun quiz hosted by Wednesday.





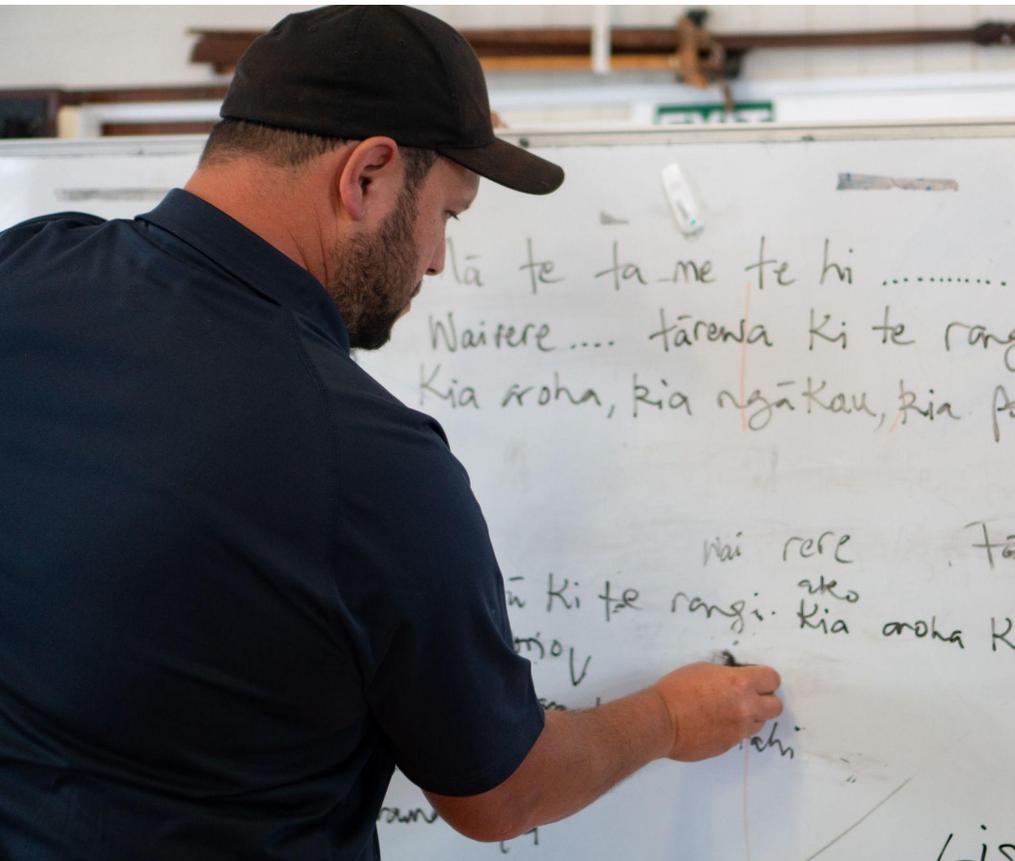
Day 3 - Workshop

Workshop on Te Kotahitanga – with Carolyn Smith, Ari Carrington, Davina Duke, and Hera Johns



During our workshop we explored the theme of kotahitanga interpreted into the bringing together of diverse worldview, beliefs, values, and strengths to empower collective action for nature. Kotahitanga was explored by each wānanga participant through the creation of an uku tangi under the guidance of our talented kaiako Davina Duke and Hera Johns.

Uku is formed through the binding together of the elements of Papatuanuku: earth and water. Our hands and breath worked together to enable the sound to be released. A powerful example of our kotahitanga theme. The session ended with contemplating our taonga as a tohu to remind us of our commitment to empower kotahitanga within our mahi and a group. This was followed by the powerful release of sound from our uku tangi as a collective.



Our workshop ended by working together to compile the following whakataukī:

***Mā te ta me te hi
kia mauri tū, kia mauri rere,
ki ngā ao e rua,
hei whakakotahi ai i a tātou***

*From the blend of this and that comes,
be mauri still, be mauri flowing,
two worlds, two contexts, two perspectives,
to unite us.*

Evaluations and Feedback

Overall

	Score						
	1	2	3	4	5	6	Total Respondents
Venue				1	6	12	19
Food			1	2	3	13	19
Timeframe			2	4	7	6	19
Overall organisation		1	4	3	5	6	19
Value for money				1	8	10	19

How effective was this wānanga in incorporating the theme 'Kotahitanga'?

Score						
1	2	3	4	5	6	Total Respondents
	1			11	7	19

Rate the wānanga for effectiveness for networking

Score						
1	2	3	4	5	6	Total Respondents
	1	1	2	6	9	19

“The networking was awesome and learning about all the different projects and work that is going on”

“Enjoyed meeting smart, driven people at the wānanga who care about the taiao”

“The networking opportunities were awesome and learning about all the different projects and work that is going on”

What do you think about the time of year that we held this wānanga? Is October and/or April the best time of year for us to hold our annual wānanga? If not, why and when is a better time?

“Both months are warm which makes taking part in outdoor activities more enjoyable especially swimming”

“October is good, not too cold or hot”

“I liked October as its coming into the busy season so it gives you a new lift to bring to your mahi over summer”

“Good, liked getting inspiration for the upcoming season and getting to know the new crew”

“Both are good times”

“I think it is better in April. October is getting a bit close to term 4 and things are super busy”

Ah-Hah moments and highlights

“Highlights were the keynote speakers on Monday evening. But, just generally getting to chat with colleagues from around the whenua to see how they are doing things, getting fresh ideas, new approaches, but also getting confirmation that my/our practices/approaches are in line with others is always good”

“Didn't realise how much collaboration MTS does with other env. orgs, who run the emr and wbc programs across nz. Learning from Papa Rereata was a massive highlight, particularly his knowledge on watching for seasonal changes and maramataka”

“Loved getting the opportunity to do a spotlight in a clear stream, cool to see so many critters and get to chat to the WBC crew about the critters we saw. Enjoyed the field trips especially as someone who doesn't get out to Northland much. Ah-hah moments: liked learning more about what everyone is doing and getting inspiration for future events. The kai was lovely - thanks!”

“Snorkelling; getting to talk to others about projects they are working on; hearing from a wide range of people with different experiences”

“The uku”

“Where western science has gone too far to prove to be ineffective and the absolute importance of putaiao. Korero from Papa Rereata and Sheridan Waitai, made the imagination fizz. Also, highly valued bringing in the art aspect gave time to meet people and integrate our learnings. A very well thought out wānanga”

“Listening to Rereata, nighttime fish spotting, and the uku workshop were the highlights for me”

“Site visits are always a highlight. Specifically for me, seeing a Hochstetter's frog!!”



Ideas for improvement

“Fieldtrip maybe needed more time e.g. not enough time at NIWA to also visit the paua and eel tanks.... we probably just needed to hurry the guide along a bit more actually. Was so pleased to get to do both field trips, so on whole was really great to fit it all in so well”

“Better organisation and communication of changes of plans, felt a bit chaotic at times, would've liked to have more time for networking, breakout spaces to chat about marine issues etc. Loved the talks - would've been nice to have incorporated more discussion-style chats or panel discussions on a central theme with the experts all chatting about a central topic like a marine panel and a freshwater panel”

“Be a bit more forceful as organisers to get going towards the next activity, be clear. All the kōrero is really important we definitely need time for that”

“Seeing other successful work taking place. I understand time is limited and other wānanga happen in different rohe so there is the chance to showcase the mahi done in other places”

“Longer workshops from Sheridan and Matua Rereata as I found these the most interesting and relatable to my job”

“There was a lot of wasted time. Things could have been kept moving to avoid constantly being behind schedule. I also found it difficult to give my full focus to the talks on Monday night as they were late in the evening. I feel I would have got more out of them if they had been earlier in the day. This would have also allowed time to chat with the speaker after their presentation”

“Having a bit more downtime for networking would have been great, at times it did feel a bit rushed and I would have liked to be able to talk to people more. Other than that it was a wonderful wānanga and I learned so much and I have come away with a new found motivation!”

“The lack of sleep caused a problem for those doing 5 days, maybe not sleeping in the Marae for the Wednesday/Thursday night so people can catch up on sleep to retain the information being given to them”

“Just keep going on the journey you're on. I could tell a lot of relationship building has been happening and deep work on what it means to be good te tiriti partners. I could also see moments where a little more weave was needed e.g the clay workshop”



