

HE MĀTAI I TE TAIAO

SARAH WHAREKURA AND CORY O'NEIL, AND
MAHERE AROTURUKI AHUREA

TE MĀ O TE WAI E RITE ANA KIA KITE I NGĀ
TAPUWAE Ā TE KŌURA
THE QUALITY OF THE WATER IS SUCH THAT
YOU CAN SEE THE FOOTSTEPS OF THE KŌURA



Cory and Sarah monitoring on the lake

INTRODUCTION

Te Arawa iwi are mana whenua of the thirteen lake beds that form part of the distinctive landscapes and waterways of Rotorua. Their strong commitment to kaitiakitanga has led to innovations, drawn from mātauranga Māori, in how to care for the lakes. The lakes have endured harmful algal blooms, invasive predator incursions and run-off from land-use practices contributing to the diminishment of water quality. Around 2019 Te Arawa asserted the need for cultural monitoring of the lakes in light of the council's practice of aquatic herbicide spraying and aluminium dosing to remove phosphorus out of the lake. This has been a transformational project, growing leadership, and involving rangatahi in cultural environmental monitoring with mātauranga Māori at the heart of all activities.

Aspirations for Te Arawa cultural monitoring have grown since then to include other aspects of the ecosystem under Te Arawa care. Te Arawa have move beyond the role of a consultant to regional

authorities to more of a co-governance approach where the iwi have agency over decisions related to their lands and waters. The iwi are also focused on restoring mahinga kai stocks such as kōura (freshwater crayfish), kākahi (freshwater mussels), īnanga (whitebait species) and morihana (wild goldfish). The expertise, mātauranga and aroha for te taiao expressed by Te Arawa over their lakes provides a valuable example to other lake-based people of how kaitiakitanga can be expressed at place for the benefit of present and future generations. Sarah Wharekura (Ngāti Kahungunu ki Horohoro, Ngāti Rangitihī, Ngāti Whare) and Cory O'Neil (Ngāti Pīkiao, Ngāti Rongomai) are part of the team of experts who work to ensure the health and wellbeing of tangata, whenua and roto in the rohe of Te Arawa. Sarah cites the longstanding presence of mana whenua around these lakes as a distinctive part of the success they have experienced over the last four years:

“We have so many lakes and they're all very different. We have an amazing amount of kaitiaki at place here in Te Arawa. We've got really, really strong bases around a lot of our lakes, of people who have held that ahikā since the beginning. That has been really instrumental in being able to feed into this [resource management] plan and being able to divert us away from these classical western science mindsets that people just tend to apply onto these plans without thinking about the 'why?', of why those things should be included, because most of the time they don't need to be included.”

WEAVING TOGETHER TRADITIONAL AND CONTEMPORARY KNOWLEDGE IN KAITIAKI-LED MONITORING

Mana whenua bring long-term observations of the lakes as living entities to the monitoring activities and this knowledge is shared with communities to enhance their kaitiaki capacities. This form of kaitiaki-led monitoring is a living practice. Cory attributes the success of their monitoring practices to the sense of agency Te Arawa have taken over their role as kaitiaki and to the sense of legitimacy that mātauranga Māori has brought to the kaupapa:

“Two fundamental things that resonate with our people. The first is agency, that is something that Sarah's embedded into our cultural monitoring plan. We are a hub organisation and iwi representatives are developing these initiatives and projects in order to teach and then hand on to mana whenua that agency and that process. The second kaupapa for me is mātauranga Māori, legitimacy. Because of our platform we are able to legitimise mātauranga that we can then pass on to the mana whenua and they then inherit that legitimacy. [...] So, with that whakapapa of marrying mātauranga Māori with western science, we understand it sets certain standards that we will carry out through our programme that mana whenua inherit through their participation. [This ensures] the data they gather is pai, our use of that data is pai, and any stakeholder use of that data holds that integrity, that whakapapa integrity. I think that's one of the reasons as well for me why I think it works so well.”

Cory cites the example of tau kōura as a traditional knowledge that brings legitimacy to the work they do. Tau kōura is a traditional fishing method used by Te Arawa and neighbouring Ngāti Tūwharetoa that involves resting bundles of bracken fern fronds on the lake bed for kōura to inhabit. This tool is used to monitor kōura populations and to assess sustainable harvesting levels.

“Kaitiaki efforts also include the use of uwahi (harakeke flax mats) which combine traditional Māori weaving with environmental science to improve water quality and combat lake weed pollution. The sites where mats are placed are monitored for weed growth and kōura populations and trial sites have registered a consistent decrease in invasive weed species. The use of land-based harakeke to provide relief to the challenges facing the lakes is a “ki uta, ki tai” approach that treats the lakes as part of the greater woven universe of te taiao.”



Blue kōura

IMPORTANCE OF COMMUNITY AGENCY IN MONITORING

Care for the lakes requires resources such as boats, maritime certification, diving qualifications and health and safety regulations and these things can be barriers for whānau and community who want to get involved with tiaki activities. Sarah and Cory disperse resources to community members when they can, and they have spent time upskilling and building the confidence of whanau to undertake this monitoring work themselves and to rest in their skills of observation and knowledge sharing in light of western science norms such as the concept of scientific objectivity:

“When you’re monitoring for western science, it’s the machine doing the work basically, you don’t have any part in it. Whereas when we have such a role in gathering that data and in making those measurements and observations with our minds essentially, you need to have a lot of confidence and you need to be able to feel like you’re more than an opinion and that your feelings about our lake are correct, and are a good reflection of how other people see it.”

These are observational skills that address the entire lake as a living being in connection with other aspects of te taiao and with community members.

Cory sees a strength of the project so far are the shared learnings that have been developed between mana whenua and other interested



Māmā kōura

parties such as local authority and Crown-funded scientists who also work to improve lake conditions. Building trust between diverse community members is a crucial aspect of the work Sarah and Cory do, and in their roles they often act as intermediaries between local authorities and whānau members, ensuring that council members understand the integrity of the mātauranga involved in monitoring and caring for the lakes.

HOPES FOR THE FUTURE

Sarah hopes that in the future all the amazing mahi she currently gets to do (going out on the boat, holding kōura, interacting with the lakes) will be taken on by whānau and community members, particularly rangatahi:

"I see this as a huge opportunity for our rangatahi to strengthen their relationship with the lakes and to be able to utilise that connection to the lakes to be a throughline in their lifetime to hold them fast to their own connections here in this place. [...] I see this project as a huge opportunity for kids to be able to really see how important their connection to te taiao is, and how much te taiao can give to them."

For Cory he sees the project as contributing to the mātauranga continuum for generations to come:

"I guess the ultimate outcome for me for this programme would be that we establish a generational resource. We have to do enough in the time we have, with the opportunity present right now to establish something that is inheritable and usable for the future. I would love to be a part of that to the end."

In the work that they do, Sarah and Cory demonstrate the importance and necessity of quality ahikā-led mātauranga and information about biodiversity and lake health.



Sarah on the water

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