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scientist
profile

Freshwater ecologist Yvonne Taura

Born

Tauranga, 1978, “where my mum is from”.

Affiliations

Ngāiterangi, Ngāti Ranginui, Ngāti Hauā, Ngāti Uenuku, Ngāti Tūwharetoa.

“I live in Tauranga with my son, who goes to kura kaupapa Māori, learning the tikanga and kawa of Tauranga Moana.”

Schools and subjects

“We moved to Australia in the early 80s. I grew up in Melbourne and didn’t study science at school – it seemed too hard to navigate, had all male teachers and mostly all-boy classes.”

“I wasn’t brought up as Māori. After school, I felt I had no cultural identity; I flew home and gave myself three months to learn what it meant to be Māori. I stayed in Tūrangi with my whāngai parents and my uncle was pivotal in introducing me to te ao Māori. I never flew back to Australia; it has been a long journey to embrace my Māoritanga.”

How she got into science

“I was always interested in the environment, and how we impacted on it. My uncle’s influence motivated me to study environmental science at Te Wānanga o Awanuiārangī; I also learnt te reo and tikanga.

“Dr Dan Hikuroa lectured in earth science; it was very practical. We were in the field much of the time and the student cohort was very supportive. It was very, very different from a mainstream university setting. I realised I *could* learn science, I wasn’t stupid after all. The way the wānanga repackaged how science was taught was key for me.”

Yvonne Taura, left, landowner Mere Whaanga, Dr Jo Smith, Dr Jessica Hutchings, and Ngāti Pāhauwera kaumātua Richard Allen at Taipōrutu, Māhia in 2018. Photo from [Storying Kaitiakitanga](#).

Training and jobs

2001 Heke Kaitiakitanga Pūtaiao - Diploma in Environmental Management, Te Wānanga o Raukawa; **2006 Te Ahu Taiao** - Bachelor of Environmental Studies, Te Whare Wānanga o Awanuiārangī; **2013 MSc (Hons)** in Biological Sciences. Yvonne is about to submit her PhD at the University of Waikato on “appropriate communication of mātauranga Māori and collaborative science research for Māori”.

2005-7 Environmental contract worker, Bay of Plenty Regional Council, Whakatāne

2008-10 Research Scientist, Ngā Runuku Hapū, Tūrangi

2011-12 Māori mentor co-ordinator in Science and Engineering schools, University of Waikato

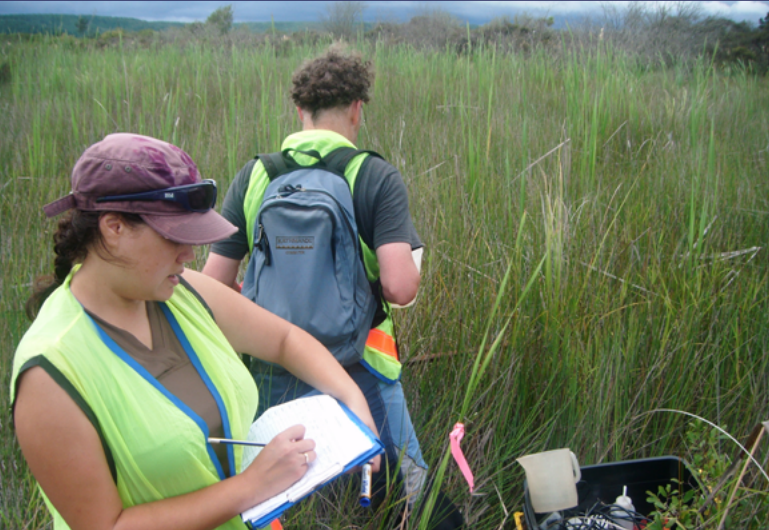
2014-now Research Scientist, Manaaki Whenua/Landcare Research (MWLR), Kiri-kiriroa/Hamilton, including a two-year placement with what was then called the Waikato Raupatu River Trust.

Yvonne Taura, MWLR.



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Yvonne with Professor Ian Duggan at the Waiotaka Reserve, Tūrangi. Photo by Potiki Te Rangiita.

Fields of science

Kaupapa Māori research, freshwater ecology, iwi environmental management, science communication.

“Māori researchers don’t tend to specialise; I have a freshwater degree but work in many different fields, including food sovereignty and climate change. We can’t always stay in our area because we are called upon in other disciplines, especially helping our tauiwi science colleagues to understand mātauranga.”

Research examples

Pest management

“I prepared pest management programmes for landowners, and was part of the Whakatāne Kiwi Project with the Department of Conservation.” Yvonne collected kiwi eggs for captive rearing in Rotorua, and released juvenile kiwi into the Ōhope Scenic Reserve.

Monitoring water quality

Yvonne implemented and monitored the Bay of Plenty Bathing Beaches Water Quality Programme. She collected water samples from lakes, rivers and beaches in the Bay of Plenty region, as well as sampling marine shellfish. In the lab, she processed samples from this and other regional projects.

Impact of willows and willow control

“My uncle and his hapū were concerned about their wetlands, so I wanted to focus on that. We have massive grey willow infestations in southern Lake Taupō, and the council was trying to control them. There was no monitoring of those programmes.”

To find out if tiny aquatic invertebrates were affected by grey willows and the herbicides used to control them, Yvonne compared

these zooplankton around willows with those around native trees. She found no apparent effect; the zooplankton were more affected by a lack of water over long periods.

“That research showed that we had to approach each situation differently. Each way of controlling willows has different costs. We have to ask ‘What is the vision of this water body?’”

Kai sovereignty

Yvonne is part of the research team on two related projects; Kai Atua: Food for hope and wellbeing and Storying Kaitiakitanga – A Kaupapa Māori land and water food story, both led by Associate Professor Jo Smith and Dr Jessica Hutchings.

“It’s about our own communities feeding ourselves and others; how do we garden, where do we get our seeds from, heritage seed. It’s very important with the rise in living costs, and vulnerabilities from the way our food is grown.”

How she finds things out

Yvonne uses several methods. “The most important aspect of our research is talking to our communities and our mātauranga experts – they observe and practice it all the time. The needs and aspirations of those communities lead the methods.

“If they want us to monitor a wetland, we ask what they want to find out, what results they need for their decision-making, how we can support their vision of the wetland’s future. Answers are always different – we could be monitoring taonga species like tuna or whitebait, or raranga plants.”

Most valuable results

“Pulling together the two *Te reo o te repo* (TRoTR) handbooks; I got to work with Cheri van Schravendijk-Goodman and Dr Beverley Clarkson, both wetland specialists and my idols. We put our cultural values up the front.”

These online wetland handbooks were also published in two print volumes in 2017 and 2021, by MWLR. They include ways to support renewed and vibrant connections between people and their wetlands; understanding cultural resources; and results of from case studies of wetland restoration and monitoring



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that used cultural indicators.

“Wetlands have been poorly understood; there’s been a massive shift in the last 20-30 years in understanding their many values and benefits for our survival.

“Many whānau, hapū and iwi have been estranged from their wetlands and told they’re dumping grounds; many are now reconnecting. Raupatu was a massive cause. During colonisation, many wetlands were drained and our people were encouraged to move away from them into urban areas.”

Wetland educational resources

In an extension of the TRoTR handbooks, Yvonne collaborated with the Science Learning Hub and kaiako Māori to develop a [suite of primary and secondary classroom activities](#) that privilege mātauranga Māori in wetland restoration.

“We wanted to support kaiako and taira Māori to restore and become active kaitiaki of their local repo. We provided science principles to support teachers and student learning.”

Mātauranga Māori

“Mātauranga Māori wasn’t used as a term 20 to 30 years ago. For someone like me who was scared of studying science because it didn’t include me as a young Māori girl, it’s really exciting that now mātauranga Māori is considered as a way to explain science for our kids.

“Mātauranga Māori is their world, it’s their living knowledge system, so they’re instantly included in Pūtaiao. They can move in the world that we call science.

“How you present mātauranga Māori for kids is important. I hope the MoE is going to resource teachers properly for understanding mātauranga Māori; it needs to be literally in the classroom. Science intimidates a lot of teachers, and mātauranga Māori will also intimidate primary teachers; many don’t understand it.”

What she likes about science

“I’m curious; I want to pull things apart, understand how they work and put them back together, question everything, explore in depth. Science has no limitations; it’s an amazing space for all kids to be in.

“I’ve been a board member for the House of



Dr Beverley Clarkson, co-editor of Te Reo o Te Repo, with Yvonne who holds the first volume. Photo: MWLR.

Science (HoS) in central Waikato for five years. If I’d had HoS in primary, I wouldn’t have struggled learning science. My son didn’t have a science programme in his kura, so I got HoS in and they’re still there.

“If kura kaiako have no understanding of science principles, they need specialist science teachers, and kura don’t have the resources for that”; there are also few primary science teachers fluent in te reo.

Links

Science Learning Hub, 2023, [Te Repo](#).

MWLR, 2023, [Yvonne Taura, Kairangahau Māori – Ecology](#).

MWLR, 2021, [Te reo o te repo, kei konei tonu au, The voice of the wetland, I am still here](#).

Jessica Hutchings, 2021, [Kai Atua: Food for hope and wellbeing](#).

Jessica Hutchings, 2021, [Storying kaitiakitanga – A kaupapa Māori land and water food story](#).

MWLR & Waikato Raupatu River Trust, 2017, [Te reo o te repo, The voice of the wetland](#).

Yvonne Taura, 2017, [Impacts of willow control on zooplankton](#), in *Te reo o te repo – The voice of the wetland*.

[Yvonne Taura on the Science Learning Hub](#) about te repo, mātauranga Māori and other topics.

Ngā Kupu

Ki uta ki tai – From the mountains to the sea (connections across landscape, people and ecosystems)

Kaiako – Teacher

Mahinga kai – Garden; gathering & use of native and cultivated foods

Raranga – Weaving

Raupatu – Confiscation, conquest

Repo – Swamp, bog, marsh

Reporepo – Swampy, marshy; swamp

Kaitiakitanga – Guardianship

Tikanga – Correct procedure, custom

Whāngai – Adoptive, foster.

From Te Aka Maori Dictionary



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