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See [our website](#) for more info on the Storying Kaitiakitanga project.

<sup>1</sup> For more information on the cultural background surrounding this whenua see Desna Whaanga-Schollum's M.Sci Comm thesis entitled, "Taipōrutu, Taonga Tuku Iho: Articulating a Mātauranga Māori Sense of Place," University of Otago, 2017. <https://ourarchive.otago.ac.nz/handle/10523/8568>

<sup>2</sup> In an effort to support the development of this emerging industry, the Ministry for Primary Industry has published a guide to freshwater crayfish farming based on research conducted between 2014-2016. See <http://keewai.co.nz/wp-content/uploads/2016/07/Kōura-Guide-Final-Version.pdf>.

MAI I TE MOTU TAPU O WAIKAWA  
KA WHIOWHIO MAI TE HAU  
KI TE MĀHIA-MAI-TAWHITI  
PŌRUTU ANA TE TAI KI TAIPŌRUTU  
TŪ TONU TE WHENUA  
RERE ANA TE AWA  
TAIPŌRUTU, TŌ MĀTOU KĀINGA TŪTURU.

FROM THE SACRED ISLE OF WAIKAWA  
THE BLUSTERING WINDS WHISTLE  
OVER TE MAHIA MAI TAWHITI  
RESOUNDS THEN THE SEA UPON TAIPŌRUTU  
THE LAND ENDURES  
THE STREAM FLOWS  
TAIPŌRUTU, OUR TRUE HOME.

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OUR LAND  
AND WATER

Toitū te Whenua,  
Toiora te Wai

National  
**Science**  
Challenges



Manaaki Whenua  
Landcare Research



## KŌURA AT TAIPŌRUTU, TE MĀHIA-MAI-TAWHITI

STORYING KAITIAKITANGA: A KAUPAPA  
MĀORI LAND AND WATER FOOD STORY

COVER IMAGE: KUTA POND, TAIPŌRUTU, MĀHIA, NZ, 2018



**OUR FAMILY'S HAD TAIPŌRUTU, WE'VE HAD THE WHOLE OF IT BACK SINCE 1982. THAT'S WHEN WE MOVED HERE. IT IS FAMILY LAND. IT'S BEEN IN THE WHAANGA FAMILY FOR CENTURIES. BUT WE'VE HAD A GRAZING LEASE TO A LOCAL FARMER FOR THE LAST 12 YEARS AND THEN RICHARD CAME ALONG, I DON'T KNOW SUMMER BEFORE LAST, AND STARTED TALKING ABOUT KŌURA AND IT WAS VERY INTERESTING. (MERE WHAANGA, 2018)**

Azolla Pond, Taipōrutu, 2018





IMAGE TOP: Azolla Pond. BASE: Manuka plantation, Taipōrutu Wahi Tapu . RIGHT: Kuta Pond, Taipōrutu, 2018

## HE KAUPAPA INTRODUCTION

What opportunities exist for whānau landholders to explore sustainable land use projects that complement more traditional farming practices? This is the question guiding the mahi of Mere Whaanga and Richard Allen, residents of Te Māhia peninsula who are working together to explore ways of using whānau land to revive an endangered species, fresh water kōura. Taipōrutu is a block of land on the Māhia peninsula owned by Mere's family, which is made up of 250 acres of land, including the eastern coastline, urupa, healing springs as well as other sites of cultural significance for Rongomaiwahine-Kahunungu peoples. As a writer, historian, illustrator, and kaitiaki, Mere has dedicated her time to researching the history of this place, depicting it in artworks and stories and now, with Richard, they are exploring ways of making the land sustainable enough for whānau members to one day return home. The farming of fresh water kōura is one such project and below we summarise our discussion with Mere and Richard about the start-up phase of this initiative, how it links to wider practices of kaitiakitanga and ki uta ki tai (the wider landscape) and the kinds of challenges facing those who are interested in farming this endangered species that was once quite common in creek, rivers and streams, but which has now moved further back into the high country, due to declining water quality and changes to landscapes and waterways.



Dr Mere Whaanga and Dr Jo Smith, research hikoi, Taipōrutu, 2018

# HE KAWA KAITIAKITANGA VALUES



(LEFT TO RIGHT) : Yvonne Taura, Landowner Mere Whaanga, Jo Smith, Jessica Hutchings, Pahauwera Kaumatua Richard Allen at Taipōrutu, Māhia, NZ, 2018

The farming of fresh water kōura is an attractive option for those seeking to diversify land use strategies as well as help sustain a vulnerable kai awa (freshwater food species). Soft wood plantation company Ernslaw One (Otago) is the first large industry player to prove that logging and fish farming can be complementary practices. Repurposing old fire ponds on unusable blocks of land in Otago and Southland, Ernslaw One's aquaculture manager, John Hollows now oversees around 2000 ponds. As well as publishing a guide to freshwater crayfish farming, Hollows has also shared his knowledge with other interested parties, including Richard, who spent time down in the South Island, learning about Ernslaw One's operations for the benefit of local peoples on the Māhia Peninsula. For Richard, kōura

offers the potential to revive traditional practices and mātauranga associated with kōura and combine those practices with commercial technologies and the opportunities presented in contemporary times.

As well as offering the opportunity to repurpose existing aspects of the landscapes of Taipōrutu, kōura farming has touristic potential similar to the prawn industry in Taupo and the salmon farms of the South Island. Given that Taipōrutu is also located in close proximity to the launch complex of the American-owned aerospace manufacturer, Rocket Lab, the farm looks well placed to contribute to the development of tourism opportunities in the area.

## KI UTA KI TAI KŌURA IN THE WIDER LANDSCAPE

*If you find kōura, you will find good quality water and of course it's difficult to find good quality water down this close, you know because of the infiltration of phosphates and nitrates, ecoli and general land uses and so forth. (Richard Allen, 2018)*

The existence of kōura is a sign of a healthy ecosystem, including good quality water. Mere and Richard's kōura plans for Taipōrutu also complement the permaculture approach taken on the property where they cultivate multipurpose plantings that can feed bees, stabilise the soil and filter water. Experiments with kōura reveal that the invasive weed, lagarosiphon is a favourite food source for kōura.

*We know that they eat watercress and that's what they've been feeding on since we got them a couple of weeks ago. But I tried them with commercial fish food and I also put kokihi in there, which is the native spinach. I put lagarosiphon major (oxygen weed) in there as well. Lagarosiphon is an invasive weed and they just bypassed the other three and just went for the lagarosiphon to the point where one of them had actually pulled up a lump of lagarosiphon into his little whare, you know the little hidey hole that they have in the tank and one of the others was actually sitting in amongst the lagarosiphon chomping away quite happily. So it seems as though they have an affinity for that. Now that actually opens up another possibility because lagarosiphon is an invasive weed. (Richard Allen, 2018)*

These possibilities include processing the lagarosiphon in such a way that it becomes inert (for example turning it into pellets of some kind) so that it can be used as a food source without impacting on the environment. Accordingly, the farming of kōura includes additional innovations that could have mutual "whole of landscape" benefits for waterways, whenua and peoples.

## CHALLENGES

As Mere and Richard both acknowledge, these are early days for kōura farming initiatives and while the long-term plan is to develop a viable business there is also the issue of providing for whānau and community needs. Farming a food source can often bring with it expectations that this food can support tangihanga or whānau hui, which has a flow-on effect of increasing the wellbeing and mana of a whānau or hapū. The balance between commercial needs and cultural values needs to be found. There is also the challenge of finding wild stock to populate the production ponds. Yet, Mere sees a very clear synergy between their aspirations for kōura and the wider vision of bringing her whānau home.

*The kōura, as a Māori food story will fit in really well with what we want to do with this piece of land because we've got so much history. There's the pa site, there are kumara pits down there. [...] The fortification area around the pa is still there. You know, there's a very ancient urupa down the bottom. We've got so much history in this 250 acres that we managed to get back. So the fresh water kōura then becomes part of everything we do. (Mere Whaanga, 2018)*