

# tongariro

THE JOURNAL

2022

The journal for Tongariro National Park is produced by Project Tongariro with assistance from the Department of Conservation



Department of Conservation  
*Te Papa Atawhai*



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[www.tongariro.org.nz](http://www.tongariro.org.nz)



*Photo: Matheus Negri*



Snow Gentian - *Gentiana bellifolia*. Photo: Liz Brooker

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# FROM THE PRESIDENT



MIKE O'SULLIVAN

PRESIDENT

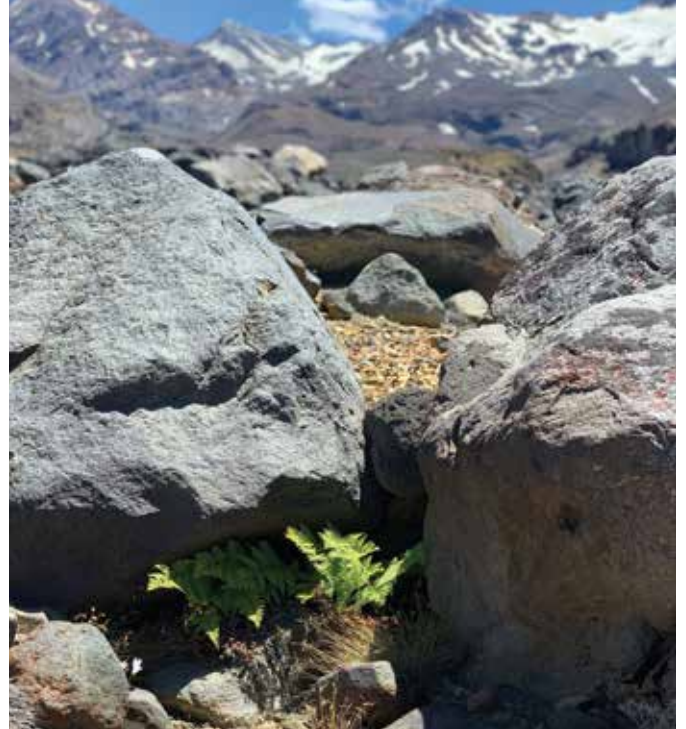
Kia ora koutou

As we emerge from the COVID-19 lockdowns of the last two years it is great to see that the good work of our organisation continues to grow and prosper. Since the last time I wrote to you, Project Tongariro has been nominated as the Environmental Hub for the Central North Island and we have initiated an educational program similar to that undertaken by Kids Greening Taupō in the area surrounding Ohakune. This will be known as the Waimarino Education Project.



Foggy day in Tongariro National Park. *Photo: Jumpstory*

Environment Hubs of Aotearoa is a charitable organisation embracing environmentally focused organisations from Auckland to Timaru with our closest neighbours being the Environment Centre Hawkes Bay, Envirohub Bay of Plenty, Sustainable Taranaki and Sustainable Whanganui. These hubs focus on a broad range of activities such as water and energy, gardening and food supply, environmental protection and transportation. By becoming part of this organisation Project Tongariro will be exposed to ideas from other organisations with similar goals and ambitions to ours. This allows for cross fertilisation of ideas which can



High up on Ruapehu ferns survive, tucked into the shelter of rocks. *Photo: Kiri Te Wano*

only benefit us as we move forward. It also provides training for our staff and board members on subjects as far ranging as the Treaty of Waitangi to board governance which will increase the resilience of our organisation.

The setting up of the Waimarino Education Project extends our educational focused activities to the southern region of our sphere of influence. The lessons learned and the resources developed by Rachel Thompson and her team at Kids Greening Taupō will provide a foundation on which these programs will be rolled out. I would particularly like to thank Kiri Te Wano, Rachel Thompson, Karen Grimwade and Allan McKenzie for their mahi in getting this program up and

*I would like to acknowledge Paul Green's immense contributions to our society over the last 20 odd years.*

running. We look forward to providing the tamariki of the Waimarino area the resources to learn how to interact and protect the environment that they live in.



Rainbow above the tussock and in front of the forest, Tongariro National Park. *Photo: Kiri Te Wano*

Your organisation stands in a good position to move forward with its recently adopted five year strategic plan, which the executive board approved at its latest board meeting. This plan will build on the present work undertaken by Kids Greening Taupō, Greening Taupō, Predator Free Taupō, our Restoration Champions, Wicked Weeders and our many volunteers. Our finances, ably looked after by Patricia Taylor, are in a strong position due to our many sponsors, two of which in particular I would like to thank, that being the Bay Trust and Len Reynolds Trust.

I would like to acknowledge Paul Green's immense contributions to our society over the last 20 odd years. Earlier this year Paul stood down from the position of Director in which he passed the baton onto Kiri Te Wano whose responsibility is now to guide our society forward. Paul however has agreed to stay involved with Project Tongariro as a board member and a mentor to Kiri so we will still be able to tap into his vast knowledge base of the people, fauna and flora of the central plateau. We thank you Paul for your efforts and I look forward to working with you for many more years.

Finally, I would like to thank you - the volunteers, without your efforts we would not have been able to achieve a fraction of what we have done over the last year.

Ngā mihi  
Mike



# PROJECT TONGARIRO DIRECTOR'S REPORT



**KIRI TE WANO**

**DIRECTOR**

What a year it's been - with the continued effects of the ongoing pandemic and making sometimes difficult changes to deal with this new but same way of life. This year has been a year of change for me in my working life. In December 2021 I was appointed the role of Director of Project Tongariro, and I officially took over this role from Paul Green in February 2022. I'm delighted to be given this very special opportunity - especially with the continued support from the Board and from Paul - who's sticking around on the Executive Board and more importantly, acting as my mentor. I'm extremely grateful to be taking over with a well experienced team around me and wonderful community partnerships in place. Paul has gone above and beyond in terms of leading our society through the last tumultuous two years.

Thank you to all the Journal contributors for this year's issue! Having this special record of conservation stories keeps track of what challenges and what celebrations we've had along the way.

## Waimarino Environmental Education Project

A project that's been in the pipeline over the last couple of years has been one that supports a collaborative approach to environmental education. Our Executive Board recognised that the society is wanting to reconnect back into Tongariro National Park (TNP). Through experience in Taupō with Greening Taupō and Kids Greening Taupō, we have learnt a successful way to entice communities into conservation is to engage school children. Not only does conservation provide excellent learning opportunities - it also achieves enviable biodiversity outcomes - albeit a bit slower than direct purpose-projects.

We were successful in obtaining the backing and funding from a private trust who's philanthropic

trustee is keen to support environmental projects in TNP. We then engaged our previous Kids Greening Taupō Coordinator, Thea Depetris, who completed a comprehensive scoping study for us looking at the need and support for such a project in Waimarino (southern Ruapehu) region. The report identified that the five small communities of Waiouru, Ohakune, Raitihei, National Park and Owhango welcomed our approach and support for environmental education.



Clodagh Costello - Waimarino Education Support officer.  
Photo: Kiri Te Wano

In May we were lucky (in this tough employment environment!) to hire Clodagh Costello - an Ohakune local with great passion, energy and enthusiasm for connecting children with our natural environment. Her key coordination role is to initiate, develop and build relationships of trust and collaboration with schools and community partners in the district. We will also work to promote, support and achieve education and conservation outcomes that foster an appreciation of the uniqueness of the flora and fauna of Tongariro National Park and its surrounds. Helping us to do this we will integrate te ao Māori, tikanga and te reo throughout the programme by working alongside local Iwi groups.



The view from Mt. Tihia looking northwards over Lake Taupō to Mt. Tauhara and the Taupō township. *Photo: Kiri Te Wano*

In the words of David Attenborough, “No one will protect what they don’t care about, and no one will care about what they have never experienced’

- A longer growing season
- Reduction in number of snow days, snow cover, less snowfall and an earlier spring melt

## Climate Change

In February of this year our Executive Board held a session on climate change, facilitated by Nic Etheridge - our former President who is the Porirua District Council’s Environmental Services Manager. We looked at what climate change might mean for our society over the next 10 years and how we might want to position ourselves and what role modeling we want to undertake. We looked at identifying what actions to take now and in the future and what opportunities we have.

We discussed the typical climate framework - adaptation, mitigation and climate economy, and what national policy direction and trends are being observed. We also looked at likely impacts for the Central Plateau. This really hit home for me, and conversationally in the following two weeks I talked about it a lot! Things like;

- A likely temperature increase between 0.7C to 1.1C by 2040
- By 2090 we will have 10-60 more days per year of temperatures greater than 25C
- Frosts will decrease by 5-13 days per year
- Winter rainfall to increase 4-7% spring decrease 6%
- Inland flooding will increase
- Droughts like to increase in frequency, fires, water shortage
- Disease and invasive species pests/ weeds will likely increase
- High lake temperatures, higher lake levels

Thank you to all our members and supporters alike! Our organisation continues in good heart with long-term volunteers involved on a weekly basis - trapping, weeding, planting and of course those on our governance board. I wish to extend my heartfelt thanks to this engaged, committed and passionate Executive Board!



Kiri in the old Waihohonu hut, built in 1904 and restored in recent years with the help of Project Tongariro members. *Photo: Kiri Te Wano*



# NANK



## HARRY KEYS

EX CONSERVANCY SCIENTIST  
PROJECT TONGARIRO  
MEMBER

### From Field A to mountain and conservation colleague

Nank, (John Marsden Nankervis), died on 11 January 2022, eight weeks after suffering a severe stroke and nearly nine years after a climbing accident ended his climbing days. An event to celebrate Nank's life and his wide-ranging contributions to the outdoors and mountain protection was cancelled when COVID-19 restrictions limited gatherings to fewer than 100 people. But friends and family continue to reflect on Nank's diverse contributions to climbing, exploration, conservation, his friendship, foibles, family links and much more.

Nank had a very large number of friends and influenced the lives of dozens of people. A booklet of thoughtful and warm tributes was compiled by Ross Cullen, with assistance from Dave Bamford, John Wild and others. It encapsulates what we admired of Nank and reading it makes one realise that many of us only knew a part of the man. He was one of New Zealand's leading mountaineers, an explorer, ski mountaineer, ski patroller, legal expert and mountain conservationist.

He had a legendary depth and breadth of knowledge about mountains, mountaineering and their literature. His service, interest, expertise, advocacy and commitment towards the mountains is well known, such as skilful carrying out several roles in the New Zealand Alpine Club including terms as its President, New Zealand representative on the International Climbing and Mountaineering Federation and terms on the New Zealand Conservation Authority. His generosity as a climbing, legal and conservation mentor was perhaps less known except to the recipients. People reflected on Nank's sharp intellect,

wit, loyalty, generosity, exuberance, mischievous character as well as recounting stories of his mountaineering and tramping trips and his prowess, from planning, route-finding, tenacity, empathy and safety.

My own relationship with Nank really began when he was assigned as a "Field Assistant" to my Victoria University science programme in Antarctica in 1976. Our first challenge was at the start of the season camping out to test the field gear in  $-40^{\circ}\text{C}$  which was the coldest temperature we ever experienced. Nothing much worked in the morning, and two of us had to walk back to Scott Base while Nank made sure the camp stayed warm. In the late 60s he had been a shadowy senior figure to us freshers as he had graduated and joined the Tararua Tramping Club.



Nank the route-finder: sledging off the icecap of Mt Morning, Antarctica. *Photo: Harry Keys*

In Antarctica he provided welcome reassurance crossing a crevasse field in the upper Taylor Glacier and valuable alpine experience sledging down the slick slopes of Mts Morning and Discovery. By then his wicked sense of humour had been revealed most memorably during a blizzard when he was in the other tent with all the food. We gratefully and hungrily devoured crackers with cheese passed into our tent until we realised there were pieces of Sunlight soap masquerading as cheese in the yellow light inside the tent. And his mother's fortnightly resupply of delicious Russian fudge awakened a life-long love of the stuff in me, plus a lingering memory of his overly parsimonious attitude (in my biased view) in regard to sharing it.





Nank and longest mate John Wild enjoying exotic seafood in a Hokkaido restaurant. *Photo: Harry Keys*

Ever after 1976 he referred to himself in letters etc to me as “your loyal field a..e”, a unique Nankervisesque characteristic consistent with his well-known attribute of assigning nicknames to people. He used a four-letter word for me with an expressive delivery but without rancour. Karen, my wife, was more warmly known as Willy-yumyums.

Our paths joined and crossed in the mountains, including one time in the upper Hooker Valley at Aoraki/Mt Cook after discussions at NZAC’s Unwin base, which led to him and Dave labelling themselves as the Golden Rain party. We had a memorable trip to Hokkaido in January 2009 which stood out because of his knowledge of the localities and people (as well as the snow!). His name “El Grande” for the ski mountaineering traverse around Peretini/Girdlestone will linger with memories of great skiing together.

Nank’s cryptic communication became ever more challenging in recent years as we spoke of glaciers, ice loss and volcanoes. Sometimes he scored so high on our mutual scale of cryptic-ness that I couldn’t understand him. But only once was my reply good enough to justify a concession that I had obtained “quite a high score”.

One of his commitments was to the central North Island. For over 20 years he was Honorary Solicitor for the Tongariro Natural History Society (now better known as Project Tongariro), one of the longest running community conservation groups in New

Zealand. He served three terms on the Tongariro-Taupō Conservation Board during some challenging issues.

Paul Green the Conservator at the time observes that Nank revealed an exceptional understanding of the legislation and what management planning was trying to achieve in regard to recreation and conservation. He did not let personal aspirations get in the way of important decisions. His leadership of NZAC’s submissions on the draft management plans for the Aoraki/Mt Cook and Westland national parks stand out, in my opinion, as his last and one of his greatest contributions. At the 11<sup>th</sup> hour he was able to gather enough momentum to address the issues and move through the debate which had essentially compromised the club’s position, to produce a nationally significant and valuable submission.

Nank’s legacy will endure, not least in the mountain and other trusts he gave funds to.

Geoff Spearpoint and Jane Morris, two of NZ’s most-accomplished trampers and mountaineers wrote a magnificent tribute:

*“Hola Nank, Mentor, fellow mountain explorer, journeying on into the great unknown. Your inspiration and support fired so many of us and you will be remembered as long as we live.”*

# WINGING IT – INNOVATING TO PROTECT BLACK-BILLED GULLS



KAREN ARDIN (ARDY)

BIODIVERSITY RANGER

Gulls are not birds we often think of as needing any help, all too often they help themselves - to our chips! Black-billed gulls however, affectionately dubbed 'BBGs' by Central Plateau DOC staff, are among the more endangered of the world's gulls, and are endemic to Aotearoa.

More accurately called 'gulls' than 'seagulls', black-billed gulls typically inhabit inland lakes and rivers, preferring to nest on a gravel surface. As with many ground-nesting birds, introduced predators are a key threat, as is habitat disturbance.

Speaking of habitat disturbance, Taupō BBGs have a distressing habit of choosing unsafe nesting locations that bring them into conflict with humans. In recent years they have been deterred from nesting and visiting Tokaanu Power Station, (one of their preferred sites), using a bird scarer, paper hawks and other deterrents. If available, BBGs prefer elevated sites with a readily available food supply, so the power station fit the bill.



BBGs are a small gull, more slender than red-billed gulls and with a longer bill.



Constructed 'beaches' on the grass at Motuoapa marina.



Ideal nesting locations for BBGs were not considered ideal by boat owners.



A lot of manual labour went into shifting gravel for the constructed beach at Tokaanu wharf. Further crates were added in December as the nesting area spilled beyond the gravel area. Clearly it was the place to be.





The gulls were amenable to the adjacent piers, but it wasn't a long-term solution



The pontoons being settled by the Motuoapa jetty; most of the birds in this image are the fake birds!



Construction of nesting areas on the Motuoapa jetty. These areas quickly became hot real-estate once the pontoons were towed.

Black-billed gulls are a tricky species to successfully monitor. They frequent various sites around Taupō Moana, so finding where they will eventually nest for the season is not easy.

We started monitoring sites for signs of nesting behaviour in October, as we have done for the last couple of years. The main focus was the old Tokaanu wharf where we initially had nesting success last season. A few gulls were in residence, but alas, no signs of nesting at all.

In November, a call was received from the Harbour Master advising that BBGs were making a nuisance of themselves and had started nesting on some of the boats at the Motuoapa marina. The constant mess and noise were not welcome, particularly with summer approaching. Great news about the nesting, bad news about where they had chosen. Under law,



Popular real estate on the Motuoapa jetty, complete with chicks! members of the public are not allowed to remove nests or birds as they are protected; however, we knew boat owners were unlikely to have endless patience with the deck-top intruders.

I was one of the staff tasked with moving the nests to try and deter the birds from using the boats. Nests were moved to artificial sites nearby. Often these nests had been remade in the same place the next day. They are persistent.

Over the following few weeks, we tried deterrents on the boats such as flags, paper hawks and streamers, while providing some nesting circle beaches and decoys on the adjacent grass.

Meanwhile, a colleague and I set up a new gravel 'beach' at the very end of the old Tokaanu wharf as we had done the previous year. The area set aside included 'model' BBGs to tempt the local flock!

At Motuoapa marina the trick was to keep the new nesting areas close by, but off the boats to encourage them to slowly move. Despite our best gravel arts, the birds showed no interest in nesting on the grass area.



A large, fluffy chick on one of the pontoons.

We then tried the adjacent marina pier sites which had no boats in them at the time. These worked! But unfortunately could only be a temporary solution – with summer boaties on the way the birds needed to be taken out of the marina.

A maverick solution was found, with help from our friends in the Fishery team, and the ever supportive Harbour Master team. We borrowed two floating pontoons, decked them out with gravel to simulate a riverbed/beach, and placed them next to the existing nests on the pier. Quickly populated with nesting gulls, the real test would come with moving them beyond the marina.

A few days after the pontoons were colonized, the Harbour Master staff slowly began to tow the pontoons around the corner next to Motuoapa jetty.

Feathers were indeed ruffled! Our Senior Biodiversity Ranger, Sarah Tunnicliffe, described her rollercoaster of emotion as she watched.

“There was a bit of hope as the pontoons started to move off, and then the heart dropped as the birds started to abandon ship.”

Just one stoic bird remained on its nest for the entire journey. Then we started the nail-biting wait to see if the others would return.

The excitement when we found birds nesting, both on the pontoons, and on our constructed nesting areas on the jetty, cannot be overstated. Images were flashing across messenger whenever someone in the team ventured past the area.

The enthusiasm made monitoring easy, with mating behaviour seen almost up to Christmas. The first chick, a ball of fluff with a beak and legs, appeared on



Pontoons were returned to the workshop, having been an effective solution for the season.

one of the pontoons on the 8 January.

Three more popped out in the next three days, then the population exploded to over 60 chicks by 28 January.

On 18 January I wrote, “It warmed my heart to see three chicks nestled in the red crate I had put back together then graveled back in December”

Motuoapa Bay also posted on the BBG chicks. On 28 January, it was noted that one of the chicks was in the water, being flanked and fiercely protected by a very noisy group of adults until it made it onto dry land. Two weeks later, all chicks had fledged from the jetty, and only a few left on the pontoons. Most were in the water, protected as a group by the adults. By 23 February all chicks had fledged.

Once again, the Harbour Masters were happy to help, removing the pontoons from the water with their crane and barge, even delivering both back to our yard.

Sadly, our efforts at Tokaanu wharf were not such a success. The huge number of nests that established were found abandoned on 1 January 2022. This had also happened in December the season before. Thoughts are perhaps a kahu/harrier-hawk, shags or humans may have upset the birds. On a brighter note, some of the birds likely made their way to Motuoapa as the numbers increased after that date.

I feel privileged to have been involved in a fantastic team effort, working closely with the Harbour Master team and our local staff for BBG chick fledgling success this season.



# VOLCANIC UNREST AT RUAPEHU MAUNGA



MITCHELL BLACK

RANGER – COMMUNITY | AO  
HĀPORI

The recent changes of volcanic alert level on Mount Ruapehu has seen the implementation of a suite of volcanic protocols which have been continuously refined since the 1995-96 and 2007 eruptions at the volcano. Speaking with Hollei Gabrielsen, the Department of Conservation's technical advisor on volcanology, we ask what makes this period of volcanic unrest significant from previous periods.

The increase in Volcanic Alert Level (VAL) at Ruapehu led to the Department of Conservation enacting a series of mitigation measures. These included a two-kilometre exclusion zone from the centre of Ruapehu's crater lake Te Wai ā-moe to reduce the risk of exposure of visitors to potential eruptions and ensuring preparatory response measures are in place should a significant volcanic event occur. Mount Ruapehu houses three ski-fields: Whakapapa, Tūroa and Tūkino as well as Whakapapa village, attracting large numbers of visitors to the mountain.

As an active volcano, Ruapehu typically exists in a state of constant volcanic unrest sitting at Volcanic Alert Level 1. The New Zealand Volcanic Alert Levels describe the level of volcanic unrest at all volcanoes across Aotearoa and acknowledges that Ruapehu exhibits detectable volcanic unrest phenomena. These phenomena can include steam eruptions, volcanic gases, earthquakes, landslides, uplift, subsidence, changes to hot springs and lahar (GeoNet, 2022). Volcanic tremors and volcanic earthquakes typically initiate the start of a new heating phase at Te Wai ā-moe and usually we would see a corresponding rise in lake temperature and an increase in the emission of volcanic gases. When these tremors are felt at the surface this can be indicative of fluid and gas moving beneath the volcano. However, in this current period of heightened unrest at Ruapehu, these were not observed in the early stages and the increase in tremor did not significantly change the temperature at Te Wai ā-moe which is unusual. Throughout this period of moderate to heightened unrest at Ruapehu, monitoring data has observed many volcanic phenomena including the longest and strongest volcanic tremor in two decades of monitoring and the second highest reading of carbon dioxide since recording started.

The lack of initial rise of temperature at the crater lake after the increase of volcanic tremors was concerning, given the potential for the vents beneath the lake to form a hydrothermal seal. Under certain conditions this plug can cause pressure to accumulate beneath the lake and further raise the risk of eruption. Water and



Recent volcanic unrest has seen attention drawn to Ruapehu. *Photo: Department of Conservation*



Crater Lake Te Wai ā moe 18 May 22 during the period VAL 2 (21 March - 4 July 2022). *Photo: John Hyde*

gas samples from Te Wai ā-moe showed no chemical evidence indicating that magma was mixing with the hydrothermal system beneath the lake. Because that signature wasn't detected it did leave an information gap as to why the unrest was manifesting this way, and what may eventuate. Ultimately, we're often left with more questions than answers.

Another factor which increases the importance of this period of unrest is that the entire period has been recorded in greater detail to further improve our ability to understand volcanic activity. Typical behaviour of the volcano has tracked and monitored through the GeoNet project consistently for the past twenty years. For the first time since this network of monitoring devices has been in place, experts have been able to monitor and interpret consistent live-feed data from the volcano. This has allowed for a more thorough measurement and interpretation of data than ever before.

With this new period of volcanic unrest ongoing, Ruapehu continues to be monitored, more information continues to be gathered, furthering our understanding of volcanic activity, and helping us be better prepared. The lake temperature peaked at 41° C on 8 May and as expected at these temperatures steam was seen rising

above the volcano. As of 14 June, the decline in some monitoring parameters (e.g. lake temperature cooling to around 21° C) has led GNS to consider the unrest is now moderate rather than heightened. But there is still some uncertainty about the state of volcanic processes so the Volcanic Activity Level has been held at VAL 2 until 4 July 2022.

A recent interpretation on the unrest is that it was due to an intrusion of magmatic fluid into the region beneath the crater, as happens from time to time beneath this and other active volcanoes.

Brad Scott from GNS Science commented later how well the communications during the unrest period worked between agencies in the Central Plateau Volcanic Advisory Group, including DOC, GNS Science, police and regional and district councils. A very useful exercise was held which focussed on the first hour after an eruption in which awareness and control of the response passes from DOC and GNS to the police and councils. The joint planning and response functions of agencies within CPVAG are clearly still active and strong 20 years after it was originally established during the preparation for the major lahar event of March 2007.



# ORUATUA RECREATION RESTORATION 2021 -2022



**SHIRLEY POTTER**

**PROJECT TONGARIRO  
EXECUTIVE MEMBER**

This report covers the period from 1 July 2021 to 30 June 2022. Another busy, productive and fun year has been spent in the reserve.

I wish to acknowledge our funders who make this project possible: Waikato Catchment Ecological Enhancement Trust (WCEET), Te Uru Rakau ( Ministry for Primary Industries), Waikato Regional Council (WRC), Department of Conservation (DOC), The Sargood Trust, Turangi Tongariro Community Fund and Geyser Foundation. Donations from locals are also gratefully received and put to good use.

The Department of Corrections are also a key part of this project, growing the trees for us to purchase at a very good rate, providing bamboo stakes, cutting old woollen carpet and making signs for us. It is a pleasure to work alongside Murray in the nursery.

COVID-19 has made life difficult for Murray with his workers being unavailable for long periods of time. We also had some donations from businesses for equipment that is essential for our work. Croplands donated a boom spray which we mounted on Mark’s quad bike to keep our access tracks open. Milwaukee donated a battery powered knapsack. Lyn River donated gloves for our hard working weed pulling crew. WRC have kindly helped us with an ‘end of year windfall’ of some herbicide and PPE. Many thanks to you all.

COVID-19 has reduced our visiting volunteer groups to zero, but we are lucky to have a few hard core helpers who love the work as much as we do. Rosie Bennett joined our crew of paid part timers in October, with Nicky Schrader and Suzie Deroles. Rosie has been quick to learn about the native fauna and her passion for the job was evident when she was working with a couple of young lads on holiday, she was nervously watching to make sure they didn’t stand on any young seedlings, or pull out the wrong things! Sadly Nicky has left us again for her second baby. Steve Bell developed a strong dislike for Canadian fleabane and became a valuable member of our weeding crew, helping greatly with the spraying. Alison Downes has joined us as a keen Wednesday weeder and morning tea supplier! Thanks to all the other helpers not specifically mentioned, you know who you are and your help is valued.



I must make mention of our July 2021 planting. It was the unveiling of Jim’s Maniapoto’s memorial and heavy rain was correctly predicted. It was great to have four generations of the Maniapoto family in attendance. We had our best turnout ever with over fifty people, who all stayed the distance, most drenched to the skin at the end. Anne (Jim’s wife) was with us again the following morning tending to our plants and she said it was the best memorial possible for Jim and he would have loved it. I am very sad to say that Anne Maniapoto passed away in March. Our community is poorer without her lovely presence.

Wednesday weeding crew - smoko time. Photo: Krysia Nowak





Jim Maniapoto's memorial planting day - the rain did not deter us. *Photo: Lucy Potter*

Jim's granddaughter Candace Graham has been on hand to continue this connection with the whenua. This year we have had another three community planting days, with new faces turning up each time. Our range of volunteer ages was from four months to eighty nine years young.

Several holiday homeowners are making visits specifically to join in the planting days, with around two thousand plants each time. The dates were 8th May, 28 May and 9 t July (postponed from 11 June due to flood waters).

From July 2021 to the end of June 2022 we have planted 8300 trees, making our total since 2014 an impressive 30,000. Our volunteer hours just keep climbing as the project gathers momentum, with 2700 hours this financial year.

Bryan Lawrance as usual is key to our initial access and follow up mulching. He has helped Warrick Simmonds and his crew again pulling over wilding pines. We still have a few wilding pines to be removed, but the landscape is well on the way to being pine free now. There are lots of willows ahead of us in the next few years to keep us busy.



Maniapoto whanau - Candace (behind), Hupa and Huia. *Photo: Shirley Potter*



Shorty with a tough decision to make! A great smoko spread. *Photo: Shirley Potter*



Nick Singers has contributed many hours to the project once again. Nick and I did a massive 1800 litre spray session one day in December. There is always something to learn when being out with Nick. Two years ago he showed me a native grass, *Dichelachne crinite* – plume grass. I have successfully spread the seeds and it has grown and seeded in our 2021 plantings. This year Nick spotted another endemic grass, *Poa anceps*. These grasses have been tagged and seeds will be collected in the future.



The unremarkable but special Bog yellow cress.  
Photo Shirley Potter

One discovery had him a little stumped - a plant that Nick was unsure of - was I hearing things?! It is a special bog yellow cress, *Rorippa palustris*, that has been hiding for 20 plus years under a canopy of blackberry and honeysuckle. There are now five plants all doing well and producing seeds.

Karen Ardin (Ardy), Collette Taylor, Sarah O'Sullivan and many others are all instrumental in different aspects of this project. Mark Brightwell is a full time volunteer member of the crew and a great help most days, including weed spraying using our 100 litre spray tank on his quad bike. Other neighbours, Pauline Kerr and Paul Howard make our lives easy by running the morning teas on site (Collette's baking is becoming legendary) and our BBQ lunch post planting. Releasing plants is our biggest ongoing challenge, with drought coming in a close second this season. Blackberry, japanese honeysuckle, broom, lupin, buddleia and bindweed are the weeds that we aspire to have zero tolerance for. Canadian fleabane is still a big issue in our first few years of planting. There are thousands of hectares of harvested pine forest nearby, which is completely covered in fleabane whose fine seeds are wind dispersed for kilometres. However, the fleabane has provided some shade in drought times and shelter for young native seed germination. Careful hand pulling is ensuring that most of these precious native seedlings are surviving.



When Canadian fleabane goes bad. Photo: Nicky Shrader



The spray crew - Steve, Mark and Shirley. Photo: Collette Taylor

On the Thursday before our planting days we have a big job laying out plants in the correct locations. These days are being well attended, with helpers and flat deck utes coming from DOC, TDC, WRC, EPRO and volunteers. Our May layout day had 33 people so we were able to prepare the site with a mat and bamboo stake by each plant. Following the flood in mid June it was great to see that our plants had been placed appropriately. Sadly the flood waters ripped some plants from the ground for replanting. Dozens of mats went swimming and had to be retrieved. The damage was not too bad considering the depth of the water that flowed through.

Worse flood damage is being wrought on the mature native trees as river banks collapse in floods. The adjacent river gravels are locked solid with invasive





The layout crew testing Collette's baking before the planting day. *Photo: Shirley Potter*

willows, buddleia etc forcing the water to take the easy route. It is very distressing to see yet another one hundred year old kowhai fall into the river as the bank is eroded yet again. I am progressing discussions with WRC to look at removal of invasive species on the river gravels.

Ian and Frances Jenkins have again donated 850 beautiful trees for the season. There is a site named "Jenkins" around our oldest tree in the reserve, an estimated two hundred year old silver beech tree. Predator trapping is able to be expanded as we now have easier access to more land following weed removal. I'm hopeful for successful funding from the WRC small scale fund that will also help replace old rusty traps too.

Miomiro (tomtit) are still present, serenading us every day. A Toutouwai (North Island robin) is sometimes heard over the river. In May 2022 we all saw and heard the robin again, just a day visit, but we live in hope. Three piwakawaka (fantail) nests were closely observed over several weeks. We all delighted in watching the sweet young birds being fed by their parents and eventually fledging.



Three lovely piwakawaka chicks. *Photo: Sarah O'Sullivan*

### Lowlights

- Drought again this year and worse than before
- Paper wasps numbers are increasing
- German wasps getting me on my leg and back late in the season
- 40 plants were stolen from our August planting

### Highlights

- The number of volunteers turning up to our plantings and layout days
- Miromiro (tomtit) seen and heard daily
- Working with all those who help our project
- Finding new special native plants
- Nicky's dog, Rocky, finding paper wasps nests for us
- Securing funding from Sargood for three years to help pay part timers
- Mark diving and catching a small hare in the tall grass - Beauden Barrett style!
- Watching three piwakawaka nests fledge three chicks each
- The civil defence guys filling our spray water tank
- Rosie caught a small rabbit, dispatched it humanely and fed it to her dogs!
- Finally finding a tui nest - at the end of the road in an elm tree



# MY EXPERIENCE WITH MAHI AROHA ON TIHIA



ROBIN CENSURE

NZ POCKET GUIDE

The Mahi Aroha summer programme has been running for over 50 years in Tongariro, but it took us until 2022 to join a trip. We decided to join them as they climbed Mt Tihia at the Southern end of Lake Taupō.



Shirley introducing the group to an unwanted plant – heather.  
Photo: nzpocketguide.com

Standing at 1165 m above sea level Mt Tihia is an icon of the region that is rarely explored. Fortunately, the track only covers 544 m altitude change, so isn't too strenuous!



Author Robin, and Laura, both of NZ Pocket Guide took a selfie with the stunning backdrop of Lake Taupō.

Photo: nzpocketguide.com

It looked like we were not the only ones keen to take advantage of a fun, not too challenging hike with the group number approaching 30 people. Trip leader Shirley set a leisurely pace to accommodate the range of ages and abilities.

As we climbed the track in the thick of the New Zealand bush, we stopped regularly for Shirley to give us insights into the fauna and flora of the area and the conservation efforts undertaken on the land. Sometimes we stopped simply to enjoy the views over Lake Taupō, Tūrangi, Tokaanu, and all the way to Mount Tauhara on the other side of the lake. As we climbed further up, the scenery slowly shifted from the deep green New Zealand forest to tussock bushland revealing even more of the surrounding views.





The group against the backdrop of Tongariro National Park. *Photo: nzpocketguide.com*

Once we made it to the top we were greeted by spectacular views across Mt Pihanga, Rotopounamu, Rotoaira, and the whole Tongariro National Park. The day was so clear in fact that we could even see all the way to Mt Taranaki! With that spectacle in front of us, we took the opportunity to sit down and munch on our trail mix while getting to know more group members.

The wealth of knowledge shared during the walk by both the organisers and other members of the group was phenomenal, and we left all the more informed about the Central Plateau from both a cultural and ecological standpoint.

I can say for sure that we'll jump on another Mahi Aroha as soon as we get a chance to.



# TROUT HERITAGE



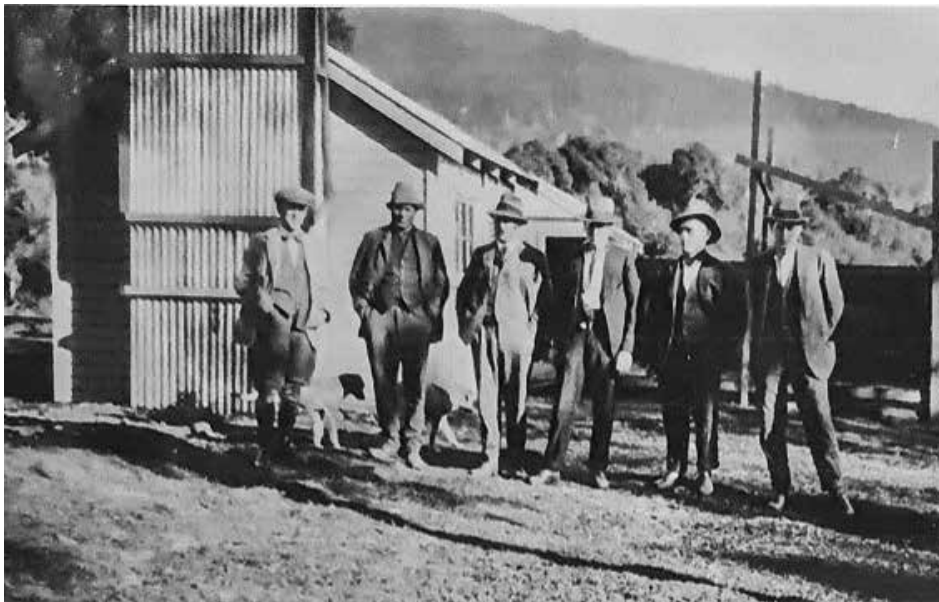
DION JAMES

FISHING GUIDE. GRANDSON  
OF WHAKAPUMAUTANGA  
(DARKIE) DOWNES

get a taste of its famous trout fishing, it is regarded as the trout capital of New Zealand. It was originally made famous nearly a hundred years ago in fishing books by the legendary American author Zane Grey and remains one of the most famous trout-fishing destinations in the world.

This is the area I have deep ancestral Māori heritage in. My mother was born and bred in Turangi. Her father was a known top local fly fisherman who raised his children on trout and lived off the land. Two of his children, my uncles, even had after school jobs working in a local tackle shop tying flies. We even have a pool named after the whanau – 'Downs Pool' is on the lower Tongariro River. So, it's fair to say, fly fishing and trout run through my veins.

Growing up, my parents used to drive us down to Turangi, and we often called into our marae Korohe on the way past for events or to pay our respects to whanau (family) who have passed on. In Turangi, we would visit the whanau homestead, which is perched near the banks of the



*Dion James' family have been fishing the Tongariro River for over a century. It was his ancestors who are largely responsible for the river's current international reputation, playing host to a long list of illustrious guests, including legendary American fisherman Zane Grey. Dion takes the time to reflect on his trout fishing heritage.*

There are not many more reputable fly fishing rivers than the famous Tongariro River in Turangi, just south of Taupō.

With thousands of international and domestic tourists coming here to

Captain Mitchell, Zane Grey and Hoka Downs made the Tongariro River famous through Zane's book *Tales from an Anglers Eldorado*.





The world-famous Tongariro River.

mighty Tongariro River. It didn't take long before they bought me my first lot of fly fishing equipment and then an uncle soon took me out for my first fish one winter's morning.

As an indigenous people of our tribe, namely Ngati Tūwharetoa, we also owned various land blocks around the area. As children, we used to visit one of these blocks settled next to the Tongariro River called the Kowhai Flats. This, to say the least, has been an area of controversy.

It all started with my great grandfather Morehu Downs and great-grand-uncle Hoka Downs. They were trout fishing guides in Turangi and pioneers of tourism on the Tongariro River and Lake Taupō. Their journey began at the beginning of the last century in the 1920s.

They had established a fishing camp at a place called Kowhai Flats on the banks of the Tongariro River, which we still own today. These two brothers bought out over one hundred original owners of a 304 acre block until there were only nine remaining owners who didn't sell their shares to them. Their fishing clients included Americans, the Prince of Wales of the day and the famous Zane Grey. They even had

a bathhouse at the camp which was built for the exclusive use of the Duke and Duchess of York. A nearby fishing pool was named for the Duchess as well.

Zane Grey is credited with writing about the merits of Lake Taupō's fishing, as well as the Tongariro and Waitahanui Rivers. His stories brought fishers from across to the globe to this part of New Zealand, contributing millions to the economy.

With the assistance of Zane Grey, my two ancestors formulated the idea of a trout hatchery at the Kowhai Flats. It was seen as one of the commercial drivers of an emerging tourism industry, ensuring the lake and rivers were stocked with trout, and would hopefully establish a successful family business.

Unfortunately, the government of the day confiscated 35 acres of the 304 acres owned by the Downs brothers. This may at first glance not appear to be a significant reduction in land ownership but the land confiscated was the Kowhai Flats where the Government knew the hatchery was going to be built. The Government then threw the Downs brothers off their land, and under the Public Works Act built the hatchery themselves in the interests of 'public good'.





The Waihukahuka spawning stream that runs directly through the land. This stream was an important part of the writer's ancestors' idea to build a hatchery.

The Downs brothers were men with a vision for the future. Not only were they clearing the land with axes and cross cut saws, they were also good businessmen. This was evident through their ability to systematically buy out 100 odd landowners. As a family, we believe there is no reason they would not have raised the capital and built that hatchery themselves.

Almost a hundred years on, I assume the descendants of the small number of owners who hadn't sold their shares to the Downs brothers are being returned some of the land under and around the hatchery as a token gesture by the Government. As a family, we are not even getting a small part of the millions of dollars that has been earned on and around Lake Taupō over the years; however, the return of this sacred piece of land sees the beginning of past wrongs being corrected.

Today the Crown is coming to the party. A historic day was marked on July 2017 at Waitetoko Marae where the Crown signed Treaty claims made by our iwi. The Crown gave an apology and complemented it with the return of confiscated land blocks and compensation. The Crown are building a new partnership with our people to settle the historical treaty grievances we experienced. And now, with the return of the land, we are also helping to manage the hatcheries, including the National Trout Centre.

The Tongariro National Trout Centre is managed through a trust by Ngati Tūwharetoa, the Minister of Conservation and the Tongariro National Trout Centre Society Incorporated (who have each appointed two trustees). The Downs whanau have also appointed a trustee who is on the board.

The main objectives of the Trust are to develop and promote the Centre and to administer, control and



The National Trout Centres' fishing pond, which is the perfect place for kids to catch their first trout.

manage the recreation reserves associated with it. Under the Treaty settlement, a significant part of the whole site will be vested in a reserve, but owned by Ngati Tūwharetoa and governed by the Trust. The Trust will provide the Crown with a licence to occupy the land at the Centre and the National Trout Centre Society with a licence to occupy the buildings. Despite its historical controversies, the Tongariro River remains a fisherman's paradise. It's home to high stocks of rainbow and brown trout, as well as the steelhead strain, which is a sea-run rainbow trout.

With tourism booming in the Taupō region and with Mount Ruapehu ski fields in close proximity, the local economy looks like it will recover well after a strange 2020-2021. The National Trout Centre is another great attraction, and makes for an awesome day out for the family. Kids can do everything from feeding the trout to learning about the ecology and habitat of some of our native species, many of which are in viewing tanks. The blue duck (whio) programme and the 'take a kid fishing' day are held annually.



There is also a building dedicated to the Trout Centre in my grandfather's brother's name – Whakapumautanga "Darkie" Downs – for his sterling work in conservation and for our people, which takes the form of a learning facility for an education programme called 'Taupō for Tomorrow'.

The programme is a hands-on learning experience that covers trout ecology and freshwater environments. It also provides a sound understanding of how natural resources are sustained and shared amongst different users, as well as promoting angling as a recreational activity.

A special mention should be given to those two great ancestors of mine, Morehu and Hoka Downs, whose hard work, dedication and vision help put the

Tongariro River on the world map. Personally, finding out more about my great heritage has given me an urge to get more connected and hands-on with the Trout Centre, the land and my people.

**Acknowledgment:**

<https://www.fishing.net.nz/fishing-advice/general-articles/trout-heritage/>

*All photos: Dion James*

## Pepeha

*Ko Matauhipo toku Maunga  
Ko Waimarino toku awa  
Ko Korohe toku marae  
Ko Ngati Hine toku hapu  
Ko Ngati Tūwharetoa toku iwi*

Kia ora my name is Dion James. I was born and raised in Kawerau, I'm a married father to four children and a grandfather to one. My interests include hunting, fishing and photography. I also keep actively fit by going to the gym most days as health and well being is a big part of who I am and is imperative to longevity and being successful hunting and gathering food.

I was a trout fishing guide for three years, based in Rotorua



and it was beginning to thrive as overseas tourists flocked into town and I even took the odd celebrity out.

Fishing is in my blood and has been in our family for generations going back as far as my Great Koro's Morehu and Hoka Downs over a century ago. From my mums side,

which is a large whanau known as the Downes whanau from Turangi, she was raised on organically sourced food from watercress, puha and trout.

As her father, Whakapumautanga Downes, was a legendary local fly fisherman living in Turangi he provided for the whanau from the land. He was also a member of the Tongariro Conservation Board. I spend a lot more time these days hunting and fishing behind our marae in the Ngahere on our tribal lands at the foothills of the Kaimanawas, just as my great ancestors did. This is important to me and a big part of who I am, to be connected to my tipuna on the whenua.



# STUDENT LEADERSHIP TEAM GROWTH



RACHEL THOMPSON

KIDS GREENING TAUPŌ  
EDUCATION COORDINATOR

An important part of the Kids Greening Taupō programme are the student leadership teams. The way that these are run has changed every year as the programme has grown and evolved. Student leader Victoria Barrett did some research into the history of the teams and how they have changed over the past seven years to present at Greening Taupō Day 2022 and we thought it would be great to share it here too!



Rachel Thompson and Victoria Barrett with her display at Greening Taupō Day 2022. *Photo: Anna Calvert*

## 2015 - 2016

In the first team, all of the student leaders were from Waipahihi School, Taupō Primary, and Tauhara College. Only three schools and two kindergartens were involved in Kids Greening Taupō in the early days, as it was a pilot to 'test' the programme in Taupō. It was based on the Kids Restore the Kepler programme based in Te Anau. The student leaders in these early years were chosen by their own schools and met during school time. During this time the leaders' mahi was very much focused on launching the programme, which led to their involvement in projects like designing the Kids Greening logo and organising a launch party including special guest Sir Jerry

Mateparae. The priority was increasing awareness of the programme throughout the community. This involved lots of public presentations, speaking opportunities and media interviews. They were even on the TV3 news!



Sian Moffitt as a student leader with her newly designed logo, Sian later went on to become a KGT coordinator from 2019-2021  
*Photo: Kids Greening Taupō*

## 2017

As more schools joined the programme it became increasingly difficult to get the students together during school time, so the student leadership team became extra-curricular, meeting outside of school hours. Students were no longer chosen by their school, instead they had to apply for a position. The leaders were aged 10 - 17 and they came from eight schools. They began to take on projects such as creating a DOC Kiwi Guardian adventure map at Spa Park, organising and taking part in Whanau Nature Days and publishing videos of their mahi. The students began regularly helping out at the Greening Taupō Community Planting Events and the idea of having their own student-led community planting was soon conceived by the group. This was organised through collaboration with Taupō District Council and the first of these plantings took place in August 2017 at Spa Park.

## 2021

After many requests from people asking how their keen primary school child could be involved with Kids Greening Taupō, there was the realisation that a junior team was also needed. This meant that for the first time we had two leadership teams and student leaders from age 7-18! By bringing in more younger people, we doubled our number of leaders to





The Spa Park original planting in 2017 (left) and the same site (right) being shown to the 2022 junior team by the chairperson of the 2022 Senior Leadership Team, Stevie Manunui. *Photos: Kids Greening Taupō*



The 2017 Student Leadership Team planning the Spa Park DOC Kiwi Guardian Adventure Map. *Photo: Kids Greening Taupō*

50 and could offer a range of activities and learning opportunities that were developmentally appropriate. The teams met separately, but with an overlap to allow for some bonding and tuakana-teina activities.

## 2022

This year there are one hundred students involved in four Kids Greening Taupō leadership teams. Today these teams are organised through student age and specific interest in conservation - along with the Senior Leadership Team, we now have two junior teams (Nature Explorers and Kaitiaki Crew) and our first Predator Free Kids (PFK) Team! The PFK team works with local experts to learn about predator control. After doing some monitoring using tracking tunnels at Spa Park, they made their own trap boxes and have set up a trapline. They also set up night vision cameras with Epro at the Botanical Gardens and have spied lots of possums. The 2022 student leadership programmes focus on developing nature connectedness for the younger children, and then progressively moves towards developing leadership skills with older students.

The student leadership teams meet once a month to learn about conservation and leadership skills, take part in restoration work and connect to their



The First Junior Student Leadership Team in 2021, 25 students ranged in age from 7-10. *Photo: Kids Greening Taupō*



The Senior Leadership Team 2021, 25 Students ranged in age from 11-18. *Photo: Kids Greening Taupō*





The first 'Nature Explorers' Team 2022, These 28 students range in age from 7-9 and learn about our local environment by getting out and exploring it. This photo is taken at Spa Park at the opening of their 'Bug Hotel'. The sign was designed by students. KGT planting from prior years can be seen in the background. Coordinators are Tākoha Pitiroi, Alana Delich (volunteer), Rachel Thompson, Heidi Pritchard. *Photo: Stevie Manunui*

natural environment. They also come along to the 10 community planting days and take on roles such as manning the registration desk, cooking the BBQ, giving planting demonstrations, checking that plants are correctly planted, taking photos, and more.

We encourage the leaders to take part in wide range opportunities as they arise and support them with conservation projects. For example, they are able to go on a tour of the Crombie Lockwood Kiwi Burrow and learn about Operation Nest Egg. Selected students are able to record radio advertisements with Mediaworks and take part in outdoor courses with NZOIA (New Zealand Outdoors Instructors Association). They hear from conservation experts and sometimes get to work alongside them doing predator control, weeding and maintenance of planting sites, planting, and other mahi. They have a chance to participate in a Blake Virtual Reality workshop, learning about water pollution. Students also get the chance to participate in workshops with



A member of the first Predator Free Kids Team getting advice from local expert, Jason Day. *Photo: Rachel Thompson*



Members of the first Predator Free Kids Team, Pipi Hunter and Elizabeth Hamilton, checking traps at Rotopounamu with Shirley Potter. *Photo: Rachel Thompson*

experts such as the famous Bug Man Ruud Kleinpaste. The student-led Spa Park Restoration Planting project continues to grow six years on. Every year in August the student leaders hold their event, and with Taupō District Council support, add more native



Lucinda Taylor, Hana Thompson and Taylor Stafford run the registration desk at the first community planting day 2022 at Taupō Golf Club. *Photo: Kids Greening Taupō*



Lucinda Taylor and Taylor Stafford giving a planting certificate to Leela Thompson Greening Taupō community planting day 2022 *Photo: Kids Greening Taupō*





Beau Coffin runs the BBQ at a Greening Taupō community planting day 2022  
*Photo: Rachel Thompson*



Anahera Shepherd collects pots at a community planting day 2022  
*Photo: Rachel Thompson*



Student leader Jesse King takes part in an outdoor rock climbing course run by NZOIA, 2022. *Photo: Rachel Thompson*

plants to the site. It now stretches from the carpark down the mountain bike track to the river. Last year a pile of rotting logs on site became an official 'Bug Hotel' when the student leaders designed a sign to help educate the public on the importance of leaving rotting wood for our invertebrates.

With student leaders now in almost every school in Taupō, Kids Greening Taupō have the ability to easily run student-led projects in the schools. This year the student leaders at St Patrick's School were able to continue to lead a Taupō District Council planting project in the neighbouring Brentwood Gully. For the third year in a row they liaised with Brent from the council and Greening Taupō coordinator, Robyn, to choose a spot to plant and choose plants to order. They then brought their fellow school students to the gully, one class at a time, showed them how to plant and taught them about restoration. It is fantastic to



Student leader Maddie MacDonald records a radio commercial with Mediaworks, 2022. *Photo: Rachel Thompson*

see our conservation leaders of the future already leading projects in their communities today.



Coordinator Rachel Thompson with student leaders, Amelia Frost and Axel Crocker, running a bug hunting activity at Greening Taupō Day 2022 with the famous 'Bug Man' Ruud Kleinpaste  
*Photo: Anna Calvert*



Student leaders from St Patrick's Catholic School explain how to plant correctly to a class from their school at the Brentwood Gully Planting, 2022. *Photo: Rachel Thompson*



# KIDS GREENING TAUPŌ INFLUENCE



HEIDI PRITCHARD

KIDS GREENING TAUPŌ

A passion for the outdoors, a background in primary teaching, and a new degree in Early Childhood Education led me to apply for the Education Coordinator position in Kids Greening Taupō (KGT). Little did I know how much I would end up enjoying the position for the professional and personal fulfillment I would gain, but also the positive influence it would have in bettering the community around me at the same time. My days are filled with a variety of activities that allow me to interact with the children of Taupō, inspiring them to enjoy nature as well as develop my knowledge of New Zealand through its native flora and fauna.



Heidi getting to know New Zealand's native weta.  
Photo: Rachel Thompson

As a teacher herself, Rachel Thompson, the lead Education Coordinator of KGT, knows that hands-on experiences are most impactful and accordingly planned my induction. It started off with getting to know the team of Project Tongariro and Greening Taupō by helping to weed last year's Matariki planting site. I was able to follow Robyn Ellis from Predator Free Taupō up Mt. Tauhara to set tracking tunnels.



KGT Professional Development at Maungatautari.  
Photo: Rachel Thompson

Rachel, Takoha o te rangi Pitiroi, the kairuruku reo Māori, and I were able to bond and upskill at the same time by partaking in bug hunting trips led by Ruud Kleinpaste in Waipatiki Beach, environmental teaching programs hosted by Maungatautari, and Department of Conservation weed eradication projects. Each experience gave me insight into the workings of KGT as well as increased my knowledge of New Zealand's unique biodiversity, restoration, and conservation position.

My recent graduate diploma in Early Childhood Education (ECE) provided me with the expertise to work with six of the ECE centres in the KGT education program. Taupō Kids Community are learning about the pests around their outdoor space with tracking tunnels we set up together. Children from Children's Corner on Duncan street are soon going to be able to enjoy an on-site ngāhere as their area is cleared and planted with plants supplied by Kids Greening Taupō. Ngāhere trips by the Waipāhīhī Kindergarten are enhanced with bug hunting supplies and resources I provide them. By following the lead of the children at Country Kidz, we explore insects and transplant seedlings. I support Abacus Best Start to infill their nature garden with grasses and mulch. Increasingly, BestStart Richmond Kindy children gain plant knowledge when we compare and contrast individual trees.

The Junior Student Leadership Teams, consisting of 25 Nature Explorers and 25 Kaitiaki Crew, present opportunities for me to use my primary teaching skills.





Kids Greening Taupō exploring nature with BestStart Richmond Kindy *Photo: Deana Terry*

Monthly meetings mean that substantial amounts of fun, environmental activities are packed into each session. Highlights include gaining Kiwi Guardian medals from Spa Park and Waipāhīhi Botanical Gardens, native plant scavenger hunts in the Wairakei School Gully, and an environmental games night. Excitedly, I planned with Rachel and Takoha a real life opportunity for the student leaders to use decision making skills when they gave input on how to divide the \$1500 Take Action Fund provided by Contact

Energy amongst the schools and ECEs that applied. Another important aspect of being an Education Coordinator for KGT is connecting with the community. This is accomplished in part by teaching the student leaders how to plant properly so they can be Planting Ambassadors at the community plantings organized by Greening Taupō. I also promote connections between outside agencies and ECE centres such as joining the Waste Management Department of Taupō District Council to centres that



The first 'Kaitiaki Crew' Team 2022, These 23 students range in age from 10-12 and learn about our local conservation. This photo is taken at Spa Park as they complete the Kiwi Guardian adventure created by the team of 2017 and check out the previous teams' planting sites. *Photo: Stevie Manunui*





Heidi connecting with the community through Whānau Nature Day with EEC.  
Photo: Krysia Nowak

are wanting to develop their recycling and composting programs. As well, I help to provide environmental teacher development in coordination with Taupō Environmental Education Collaborative.

A partnership with New Zealand Outdoor Instructors Association has led to experiences for me to accompany student leaders on expeditions as model clients as the instructors are assessed to gain a new qualification. An off-track journey around Lake Rotopounamu taught me how to build a temporary shelter with a group from the Predator Free Student

Leadership Team. A tramp on part of the W2K trail out of Kinloch was a good bonding experience for the year 6 student leaders.

KGT is based on the Collaborative Community Education Model (CCEM). This year I participated in presenting our program to other organizations around New Zealand that are already using the CCEM or in the early stages of setting up. This hui was an important networking opportunity for organizations around the country to learn and grow together.

At the most recent community event, Greening Taupō Day, I was honored to be a part of KGT and Greening Taupō presenting 4500 trees to the town of Taupō with 1500+ attendees. Rachel of KGT put together what could be called an environmental festival alongside an Arbor day planting organized by Robyn Ellis of Greening Taupō. It was an event where one could see the overarching reach that KGT has with the community through the education system. Kids Greening Taupō has clearly made a tremendous impact on its local community and New Zealand at large, while ultimately providing exciting and rewarding opportunities to me individually, using my existing strengths to help support its positive environmental outcomes.



KGT showcasing restoration work with Taupō Kids Community during the CCEM hui. Photo: Rachel Thompson



# MAHI MŌ TE TAIAO JOBS FOR NATURE



MITCHELL BLACK

RANGER – COMMUNITY | Ao  
HĀPORI

This provides funding for conservation work throughout the region and the country as part of the government's COVID-19 recovery plan. Ngāti Rangī's commercial arm - Ruapehu WorX has been successfully putting this program to work with a newly forged team focused on delivering conservation outcomes in their rohe within the Ruapehu region. The injection of funds into the region through the Jobs for Nature programme gives Iwi an opportunity to revive aspirations to care for Te Taiao and contribute to local conservation efforts.



Ruapehu WorX kaimahi setting traplines in Rangataua Forest.



Ruapehu WorX kaimahi showing off large stoat caught through their managed traplines.

*Kaimahi are becoming more in-tune with their environment, learning to identify plant species and really developing a sense of pride in caring for the area – enhancing and contributing to their uri within this place.*

The Karioi Rahui project covers the southwestern slopes of Mount Ruapehu, stretching from Rangataua to Tangiwai. Reaching through the mixed beech podocarp forests and sub-alpine environments of Mount Ruapehu, some 1100 traps make up the extensive network of traplines, helping to protect and conserve this wild and challenging part of the country. This work is much needed in both the Rangataua Conservation area and along the Tongariro National Park southern boundary, as these areas contain a





Ruapehu WorX kaimahi engaging with the whenua through their work.

number of identified bat-roost trees, the habitat of our latest furry "bird of the year" pekapeka-tou-roa (long-tailed bat) as well as their shorter tailed counterparts.

Covering thousands of hectares of wilderness is no easy feat for this team of six, many of whom came on-board less than a year ago with no prior knowledge of conservation practices. The task can seem monumental. Project manager Megan Younger tells us that "not everyone is up for the challenges presented by working in this region, but we are really fortunate to have a team who are." Megan acknowledges "you really have to work for these views". The fledging team have come to find their stride as they upskill their staff and gain more experience and expertise on the job.

The sense of pride in their work, given the challenges of the region, is evident. Field operations manager David Kereti shares how his team are taking advantage of the opportunities presented to them. "Kaimahi are becoming more in-tune with their environment, learning to identify plant species and really developing a sense of pride in caring for the area – enhancing and contributing to their uri within this place." With their team learning on the job and continuing to develop skills and experience in conservation, the programme has seen the team able to upskill into formal qualifications with small machinery and chainsaw use certifications among many other transferable skills.

The intangible benefits of personal development and pride of place are complimented by tangible conservation and real-world successes being realised through the programme. These results are being achieved throughout the region across several projects which fall under the Jobs for Nature umbrella. Other ongoing projects include possum management in Lake Rotoaira Forest and the Pökākā Eco Sanctuary near Makatote, among others across the region, are being managed by trust groups of their respective iwi.

The programme is still within its infancy. Funding through Jobs for Nature will continue for a total of four years as part of a nationwide initiative across several government agencies comprising the Department of Conservation, Ministries for the Environment, Primary Industries and Business Innovation, and Employment and Land Information New Zealand. Such an immense programme building employment, skills and environmental benefits will take time to see results. But with a strong focus on honouring treaty partnerships and delivering positive outcomes from the frontline, the future is brimming with opportunity.

# TONGARIRO TAUPŌ CONSERVATION BOARD



KAREN GRIMWADE

PROJECT TONGARIRO  
EXECUTIVE. CURRENTLY  
ON THE TT CONSERVATION  
BOARD

Over the last couple of years, although much limited by COVID-19 with meetings being cancelled or 'zoomed', the Board has been working towards wider representation from iwi who are tangata whenua in the Tongariro Taupō rohe/iwi area. Ngati Tūwharetoa of the northern part of the Central North Island have long been represented, and Ngati Rangī also in recent years. Now there is also representation also from Uenuku and Ngati Haua, so that more local iwi have a voice at the Conservation Board table. This achievement is in line with the new Director General's aim for DOC to be an 'Honourable Treaty Partner' and also makes for more inclusive progress in working towards a new Conservation Management Strategy.

Parallel to this improved representation, the Board has implemented a co-chair system.

The aim being that depending on which rohe/iwi area the Board meets in, the local iwi representative from that area can co-chair the meeting.

Mike Britton is the current Chair and does an amazing job. He has a long career in conservation and environmental governance and along with the Deputy Chair Honey Winter, has overseen the move to the co-chair system.

The Board's main mahi/work is to try to get the Conservation Management Strategy updated. It is horribly out-of-date – as are many others around the country. It seems that 'planning' went out of fashion at higher levels at the Department of Conservation, and a lack of will and a lack of funds has meant that many plans are now languishing on the top shelf. One of the sadly familiar DOC restructures in 2014 saw planners removed from local offices and that mean CMS were even more difficult to keep up to date as planners were no longer part of daily conservation management.

People often wonder if Conservation Management Strategies (CMS) are still valid and fit for purpose? Those who perhaps don't like planning, think that conservation management agility and flexibility to make decisions, on the fly is more important, and that plans are constricting.

They are now so old that it is easy to make that argument against them.

But plans give security and protection of precious taonga and places within conservation land. The CMS and Tongariro National Park Management Plan have protected our conservation land from all kinds of development that would have been more profit driven than protection driven. They are also an 'institutional knowledge treasure trove'. With DOC staff turnover so rapid, it is somewhere that all the accumulated knowledge can



Tongariro Taupō Conservation Board members, with Taranaki Whanganui Conservation Board visitors – and DOC support staff. May 2022.

Photo: Department of Conservation



and should be stored. I used the CMS the other day to answer a query about the status of a scenic reserve – the land information being easily found in the CMS – perhaps out-of-date biodiversity-wise (a protected plant species was not listed), but never the less I found what I needed, and quickly. You may have worked out by now that I am strongly pro-planning!

Some argue that they are bulky and cumbersome – and perhaps they are. The more abstract values and principles could be separated from the operational guidelines. And perhaps the Inventories (the institutional knowledge treasure trove) could be separate or adjacent to reduce the bulk of the documents. Iwi also have, or will have, the right to co-write part of perhaps most of the document and so we must work to link all the knowledge together in a way that makes sense and is easy for conservation managers to 'use' in their daily work – in a practical way.

This Board is working hard to try to push the reconstruction of the CMS into the current day and

hopefully the future. We have been inhibited by DOC underfunding – and perhaps DOCS underfunding of planning, but there is some new funding for this important work in the new budget.

The Conservation Board recently had a hui/meeting with the Taranaki Whanganui Conservation Board – who have the same delays with their CMS – and so shared ways we can cooperate to get this done. We also had a presentation by Te Kopuka, who have the function to care for the River within its new status. Te Awa Tupua (Whanganui River Claims Settlement) Act 2017 provides for the legal recognition of Te Awa Tupua as: "a living and indivisible whole comprising the Whanganui River from the mountains to the sea, incorporating its tributaries and all its physical and metaphysical elements." This was an enlightening presentation that helped us to understand how the new river status will hopefully benefit all of the people and the environment within the river catchment by working together to care for the river.



The Tongariro Alpine Crossing in winter. *Photo: Jumpstory*

# PREDATOR FREE TAUPŌ



ROBYN ELLIS

PREDATOR FREE TAUPŌ  
COORDINATOR

Another challenging 12 months has passed, but with great support Predator Free Taupō has been able to continue encouraging community groups, schools, and individuals towards a Predator Free 2050. We partnered up with Forest and Bird Taupō in August and hosted Kelvin Haste for our annual speaker. Kevin provided an entertaining talk to the trapping community, sharing his experience from setting up Predator Free Crofton Downs back in 2013, how to empower the community and the mammoth efforts of what's happening today on the Miramar peninsula.



Neil Baxter, Forest and Bird Taupō, Kelvin Haste and Robyn Ellis, PFT. *Photo: Robyn Ellis*

Predator Free Taupō continues to provide trap building workshops to the community and was part of Mahi Aroha at Motuoapa, market day at Kuratau, school events and Greening Taupō Day. ITM Taupō has continued to be a wonderful supporter of Predator Free Taupō and provides the timber for all our workshops.

Local trapping projects continue to catch many pests, and many report back on the increase in birdlife they are noticing.

Volunteer trappers come and go, at present we could do with a few extra volunteers to fill in a few gaps. Waikato River Corridor trapping project, who have recently changed their name to Huka Trapping, continue to grow in volunteers and traps, expanding into Craters Mountain bike park. Opepe trapping are looking at different techniques of how they can improve and be



Trap building at the Kuratau Market and at the Mahi Aroha. *Photos: Robyn Ellis*

more effective at removing pests from Opepe Forest. Laurie Back has refreshed and expanded the trapping network over at Whareroa and with support from King Country Energy he has joined forces with Russel the Rat and established a trapping network at Lake Kuratau.

In 2021 it was with much appreciation that we received \$5,000 from the annual Rotary Charity Golf Tournament. These funds went towards supporting trapping groups with lure which is an ongoing expense for all trapping projects and the purchase of more traps and materials for workshops, projects and the trap library.

The Pataka Lions groups acknowledged Predator Free Taupō at their celebration of 40 years of service for providing opportunities for the team. We were invited as a friend of the LLOYD Morgan Charitable Trust. The Pataka Lions club have been a great support cutting the mesh and timber for trap building workshops and then rebuilding all the 'wonky' tunnels from the workshops.



Hedgehog	Rat	Mouse	Possum	Insect	No prints
31	20	12	7	14	46

March 2022. Tracking Tunnel Data TrapNZ, Mt Tauhara.  
100 Tunnels March 17th 2022

They go beyond what is required with all the edges rounded off nicely on the tunnels. Predator Free Taupō is then able to sell these fine traps boxes with traps to the community.



Heidi Pritchard setting a tracking tunnel on Mt. Tauhara.  
Photo: Robyn Ellis

After many COVID-19 delays the establishment of a permanent monitoring network on Mt Tauhara, initially planned in 2019, finally got established and the first run of tracking tunnels was undertaken in March 2022. With support from the Tauhara Maunga Joint Trusts Working Group, funding provided by WWF in 2019 to purchase the resources and many hours of support from the Owhako Rangers, Wairakei estate, Shorty from Waikato Regional Council and the Kids Greening Taupō team, ten permanent lines with ten tunnels at 50 metre intervals



A tracking tunnel on Mt. Tauhara.  
Photo: Robyn Ellis

on each line have been installed on the Maunga. Monitoring will be undertaken twice a year in March and November to collect baseline monitoring of pests on Mt Tauhara with the establishment of tracking tunnel lines to measure rodent and mustelid relative abundance & chew card monitoring to record possum presence.

In March 2022 with awesome support from the Epro apprentices Ollie and Helene, Shorty and Kynan from Waikato Regional Council, Jeff Willis, Heidi from Kids Greening Taupō and Nigel from ARCO put out tracking papers and chewcards for a night and then collected the following day, a massive task that ran so well. ARCO and Epro provided trail cameras to place out at two of the monitoring stations. The cameras, when checked, showed an array of pest animals, such as pigs, deer, possums and rats.

We will continue with monitoring March and November each year and build a picture over time. The information/data gathered provides good baseline data and will complement, support and strengthen any future applications for ongoing work and any new restoration work.

Another event that kept getting rescheduled due to Covid was a Large Scale Pest Control meeting hosted by Wairakei Estate, a forum to learn more about the PF2050 initiative, hear from experts, and discuss potential next steps for interested parties. Brett Butland from PF2050 was one of the speakers and discussed relevant cases under the PF2050 banner and potential PF2050 contribution for a suitable project. This led into a facilitated discussion of potential next steps of a large regional project with the group which consisted of many local organisations, land owners, managers and interested parties.



Tracking line on Mt. Tauhara. Photo: Robyn Ellis





Predator Free kids listening to Jason Day from Call of the Wild. *Photo: Robyn Ellis*

From here a committee has been formed to investigate further and to keep a dialogue going with PF2050. We need to gather more expressions of interest from local stakeholders and develop a preliminary outline of a potential project. Predator Free Taupō and Project Tongariro are part of the committee and are keen to contribute and to also keep the community informed of any development.

It's very interesting and exciting that we could have a potentially large (landscape) scale pest eradication project that could contribute to PF2050, but there is a lot of work to be done and conversations to be had.

In the meantime keep your lure fresh, your trap set and happy trapping!



Trap building at the Kura Ka. *Photo: Robyn Ellis*



## ACTIVITY AROUND THE SOUTHERN SIDE



KAREN GRIMWADE

PROJECT TONGARIRO  
EXECUTIVE. CURRENTLY  
ON THE TT CONSERVATION  
BOARD

### Turoa Alpine Flush

We have been working towards getting the Turoa Alpine Flush better protected and interpreted for over a year now. It has not been a speedy process! With the interpretation, Ngati Rangī have been working towards consistency in regard to any stories they tell and this is taking time. So, in the meantime we are putting together some 'biodiversity' panels that we will have installed we hope by summer. These will focus on what the flush is, and how we can protect it, along with identifying some of the special alpine plants.

Herwi Scheltus has been working very hard to get protective steel posts designed and constructed. Again, hold ups with COVID-19 and staffing problems at the manufacturers end have made this a slow process. But the posts are made and we have our hands on them. They are fairly complex as they need to be tough enough to withstand the elements, also flexible enough in design to enable an extension of



Wider view of the Turoa Alpine Flush – with temporary boundary signs in place. *Photo. Karen Grimwade*

length as snow levels rise. They will be installed by Turoa staff after the winter. A snow pole to indicate the snow level will also be installed – there was one originally but it had disappeared at some stage.

In the meantime – Turoa safety staff have the temporary signs Project Tongariro had made last year to install around the Flush to indicate it is a special area and please take care of it.

And so it is slow progress – but good things take time, and its important to protect our special places – the Turoa Alpine Flush being a particularly special treasure.

### Mahi Aroha

For Mahi Aroha, we ran our Turoa/South East Basin trip again this year. We were again lucky with the weather, just scraping in before rain and wind. The absolute highlight for me was finding North Island Edelweiss *Leucogenes Leontopodium*. I had been keeping an eye out over the last couple of years but was concerned not to have seen any. So it was very pleasing to find a patch – not a large patch – but some at least. It was very enjoyable to also join Harry's Whangaehu Valley walk and learn more about the volcanic landscape of the valley, also an adventure to travel down to 'the river' to attend pest eradication and trapping discussions at Blue Duck Station at Whakahoro. What a beautiful spot at the confluence of the Returuke and Whanganui – so close, but a world away. After a delicious lunch at the Blue Duck Café, eating at their famous restaurant is now on the 'bucket list'.



North Island Edelweiss.  
*Photo. Karen Grimwade*

Planning ahead, we might give the alpine plants a break in

2023 and venture up onto the Raetihi Hill for a look at the historic tram lines and what is left of the milling features. I'm told that even the most rugged of old



Ranger types have been 'lost' up there – literally going around in circles – so I'll make sure we have done some reconnaissance before we attempt that trip.



The South East Basin – an alpine plant lovers paradise.  
*Photo: Karen Grimwade*

### Supporting the Conservation Community

One of our key aims is to support others in the wider conservation community. We have been thwarted somewhat in this due to COVID-19. We had a gift from Jason of Victory Events of trees to plant on the Mangawhero River Walkway – to support the local Mangawhero Walkway Group – but repeated COVID-19 problems have meant that the tree planting event at our AGM was cancelled – and then the hot dry summer precluded planting. So meanwhile, I have been babysitting (endlessly watering!) the plants and our COVID-19 revised aim is to drip feed the trees into the walkway over time now the rain has FINALLY arrived. Of course, we are not the only ones who have had their best planting efforts thwarted! COVID-19 and climate – working to make our lives a bit more challenging.

And as you may know, Project Tongariro is now an Environmental Hub and so we have more reason than ever to connect with our other local conservation people. We have the Makotuku Walkway Group so close and they do so much work to improve the lovely walkway in Raetihi – Carina (who grows the native plants we use) and Donna and their team have achieved so much on the smell of an oily rag – you may have seen them on TV1 'Good Sorts'. We also see that the Ohakune Recycling Centre and more recently the Taumarunui Recycling Centre are moving up gears

to be diverting rubbish from landfill to sell and reuse at an extraordinary rate. Part of our new job as a Hub will be to make sure people are aware of these and other local conservation initiatives. Kiri will elaborate on the Hub concept somewhere else in the Journal and what else Project Tongariro are working to do in this area – new to us but we are all learning.



Project Tongariro and Makotuku Track group get together.  
*Photo: Makotuku Track Group*



Collecting Plants for the Mangawhero River Walkway from Carina's Native Plant Nursery in Raetihi. *Photo: Karen Grimwade*



Project Tongariro's Allan McKenzie and the Walkway Group's Jon King talking about planting. *Photo: Karen Grimwade*





Ruapehu Worx staff and Project Tongariro's Allan and Karen joined tireless local wasp-eliminator Phil Sutton show us all how to find wasp nests, how to approach them and then how to 'finish them off'. A very satisfying day out. A large area of weeds has been taken out and area mulched. We probably won't plant here immediately – wait another year to knock down any re-emerging weeds. New fence line to protect the weed cleared areas being installed. Allan of Project Tongariro, and Johnny and Dave of Ruapehu Worx. *Photos: Karen Grimwade*



The new fenceline, evolving to keep out stock moving up the road – and potential rubbish dumpers. Ti and Leo hard at work in the wet. A variety of traps are being trialled – as a learning process for Ruapehu Worx, who are monitoring the trapline (DOC 200, AT200 and A24s). Allan Mackenzie picks up another load of plants from Carina's Native Plant Nursery in Raetihi. *Photos: Karen Grimwade*

## Rongokaupo Wetland

Project Tongariro were successful in securing some funding from Horizons (Regional Council for southern Ruapehu area) to do some biodiversity work at the little Rongokaupo Wetland. The wetland is owned by Atihau Incorporation, and sits just over Marshalls Road from Tongariro National Park. We engaged Ruapehu Worx to undertake the weed removal we had identified as important to start with, to install a fence to keep stock out of the newly de-weeded areas, and to install and monitor a trapline. This is quite an experimental trapline in that we are trying out three types of traps in a fairly small area. We have just set up the NZ Trap system so we can see what is happening.

Ruapehu Worx is a contracting company set up under the wing of Ngati Rangī. The aim is to provide local jobs and be able to take on local contracts rather than big contractors outside the district taking on the work. Rongokaupo Wetland is a rather small project for Ruapehu Worx, but is appealing to them as it gives

them an opportunity to train some of their new staff and try out a few skills on a small-scale project that is close to the office and easily fit in around other work.

One of the things we did to help the widening of conservation networks and to get the Ruapehu Worx rangitahi trained up, was ask Phil Sutton, one of the dedicated people around Ohakune who eradicate wasps – to come and show us how it is done. Phil spent the morning with us and some of the young ones from Ruapehu Worx and shared some of his years of experience in how to locate and kill wasps nests. Thanks Phil – a conservation hero.

Atihau Incorporation who farm immediately adjacent, owners of the wetland have been generous in allowing access and supporting this mahi. It is such a special little place and also adjacent to Tongariro National Park, we are happy to work towards the biodiversity being projected and perhaps even improved. And Ngā mihi nui to Atihau for their cooperation in this project. And to Ruapehu Worx

staff, especially Megan for the good work Ruapehu Worx has achieved. Thank you to Nick from Horizons who has taken a hands-on interest in the project.

We have a tree-planting planned for July which will complete work for this year. We hope to be successful in a bid to win Horizons funding again to build on the gains made so far.

### **Waimarino Education Support Role**

Our Project Tongariro Executive identified that in light of the success of Kids Greening Taupō, we needed some kind of way to support conservation/environmental education in the southern part of our rohe/area. We engaged Thea DePetris to scope out the need for and enthusiasm for such an idea and how we could implement it – of which Thea did a very thorough job.

We chose the name Waimarino as it represents the wider area we are aiming at more than Southern Ruapehu (the other option). We are hoping to work with schools and kura as far north with Kaitieke and Owhango, moving down to National Park, Orautoha, and then Ohakune schools, Raetihi and Waiouru. Some of the schools are already doing marvellous environmental education work, but some struggle to fit it into their curriculum – our aim is to support them in what ever environmental education they need or want – and hopefully grow the role over time.

The role will also include the support of Project Tongariro's Kiwi Forever sponsorship, whereby we



The great news is that we have just appointed Clodagh Costello as the new PT Waimarino Education Support, so she will take on a part time role supporting the local Waimarino Schools in environmental and conservation studies. *Photo: Kiri Te Wano*

provide administrative support for the hugely popular programme encouraging young people/rangitahi to get involved in conservation work.

A big welcome to Clodagh and we very much look forward to supporting her in her new work.



# PROJECT TONGARIRO WHIO CRÈCHE VOLUNTEERS



KAREN (ARDY) ARDIN

BIODIVERSITY RANGER

Over the past four seasons, Project Tongariro volunteers have been giving their time in the daily operation of the whio crèche/hardening facility at Tongariro National Trout Centre. Over this time they have seen a total of 52 whio pass through the facility. Whio chicks resulting from the North Island 'breed-for-release' programme spend four to six weeks at the crèche before release. Their time is spent developing abilities and gaining confidence swimming in fast water, walking on rocks, foraging for live invertebrates, and flying. These are all important skills they need for survival they before they are released into the wild. The Project Tongariro volunteers are crucial to maintaining a healthy environment for these learnings to occur in.

Sterilised gumboots are standard uniform for the volunteers stepping into the crèche for daily maintenance. Tasks include cleaning and hosing duck



Sarah O'Sullivan and Collette Taylor bringing the whio out of the enclosure for a health check. *Photo: Department of Conservation*

*I get so much out of it and will continue to help when and wherever I can. One look in a whio eye and you are hooked. Such a special bird."*

poo – which is more fun than it sounds - renewing food, and closely observing whio behaviour. Having 'eyes on the ground' means we are more likely to pick up the tiny clues about bird health and condition before anything gets out of control.



Helen Boston and Collette Taylor assisting Ardy (Karen Ardin), DOC, during a health check. *Photo: Department of Conservation*

Cleaning is a mainstay of the whio tasks – all equipment needs to be cleaned and sterilised to keep the whio safe from disease. Volunteers also clean the windows, weed the enclosures, water the plants, and have the privilege of assisting with whio health checks every 10 days.

A typical health check sees a whio being weighed, given a worm tablet, and checked for any issues with the feet, eyes, beak, and condition in general. Volunteer involvement, knowledge and experience means only one DOC staff member is needed at each health check, saving valuable time and resources. This is very much appreciated by DOC staff.

This season the volunteers have been coordinated by Collette Taylor who has taken over after three years of Sarah O’Sullivan being in this role, although she is still one of the most experienced volunteers. All volunteers have expressed what a privilege it is to be involved with the whio.



Collette Taylor with then Minister of Conservation, Kiri Allen, on arrival with whio in the car. *Photo: Department of Conservation*

wherever I can. One look in a whio eye and you are hooked. Such a special bird.”

Volunteers are also involved in picking up whio from their breed-for-release facilities (such as Pukaha, zoos), whio releases into the enclosures and final releases into the wild. The last release this season on the Whakapapa River involved the (then) Minister of Conservation, Kiri Allen, attending, and both staff and volunteers attending enjoyed their interactions with her.

After taking over from Becky O’Sullivan, as my first season in charge of the running of the crèche the transition has been a very smooth one. Becky has stayed on as a micro-chipping volunteer while juggling a new baby, and the experienced volunteers have made the crèche ‘business as usual’. Thanks very much to Collette Taylor, Sarah O’Sullivan, Helen and Jim Boston, Di and Roel Michaels, Becky O’Sullivan and Nicky Schrader for all your help. I look forward to next season.



Jim Boston, Di Michaels and Collette Taylor at the whio release on the Tongariro River in March, 2022.

*Photo: Department of Conservation*

When asked, Helen Boston has shared some of her thoughts:

“Being of the more mature volunteers, my life has mostly been doing what I have had to do rather than what I wanted to do. So as a whio mum it is indeed a privilege for me to help with the crèche. I find the relationship with DOC great; staff are there if needed, happy to pass on any knowledge and involvement/training to help understand what is needed. I thank DOC for letting me do this volunteer work, I get so much out of it and will continue to help when and



# RUAPEHU'S GLACIER RECESSION 34 YEARS ON



## HARRY KEYS

EX CONSERVANCY  
SCIENTIST  
PROJECT TONGARIRO  
MEMBER

### Introduction

Glacier recession in New Zealand's Southern Alps has been in the news recently. Glacier retreat and thinning continue to be a prominent theme in most glaciers of the world from the polar regions to the high-altitude tropics. Studies both in New Zealand and internationally have shown that the loss of ice has exceeded normal decade to decade variation and global heating has been confirmed to be a major driver of this loss.

In autumn 1988 I began monitoring Ruapehu's tiny glaciers with help from Karen Williams and rangers Lisle Irwin, Rob McCallum and Ian Goodison (Keys 1988) as part of the New Zealand Climate Change Programme. The late Trevor Chinn used our 1988 photos as part of his more comprehensive study of New Zealand's glaciers and the elevation of their snowlines at summer's end (e.g. Chinn 2001). A change in elevation in the end-of-summer (EOS) snowline shows whether the glacier gained or lost mass over that glacial year (which begins and ends around March-April between the first snowfall of the snow season and the end of the melt season). Trends in the EOS snowline define the state of the glacier's mass balance or "health". Trevor's study became part of the annual National Institute of Water and Atmosphere (NIWA) survey, joined recently by scientists from Victoria and other universities.

Their last updated inventory of New Zealand glacier ice was by Baumann et al (2020) based on 2016 satellite imagery. That work has shown that more than one-third of New Zealand's glacier ice volume has disappeared within the last 50 years due to warming summer temperatures exacerbated by a recent marine heatwave which have increased melting.

### Ruapehu over the years

On Ruapehu the number of glaciers reduced from 18 recorded by Trevor Chinn in 1988 to 15 in 2016. In these studies a glacier is defined as an area of "permanent" glacial ice covering at least 1 hectare (0.01 km<sup>2</sup>). Eaves and Brook (2020) discussed the historic changes in each of Ruapehu's glaciers in more detail showing the inferred ice extent mapped at five time periods between 1959 and 2016. Mapping glacier margins from the ground or using uncontrolled aerial photos prior to the 1990s is not particularly accurate (e.g. in 1988 I over-estimated the area of the Mangaturuturu Glacier by at least 10%). Also debris cover over the ice hampers interpretation of ice extent. So some differences between mapped extent over time are due to measurement and interpretation errors. Shaun Eaves did numerous field trips to the glacierised areas between 2011 and 2017 during and after his PhD study which better delineate surface debris cover and ice extent. We can be fairly confident that between 1988 and 2016 the total glacier area has reduced by about 25% from around 4 km<sup>2</sup> to 3.0 km<sup>2</sup>.

*There may be as few as  
12 glaciers left (on Ruapehu)*

At least eight of Ruapehu's named glaciers (Mangaturuturu, Wahianoa, Mangaehuehu, Whangaehu, Mangatoetoenui, Summit Plateau, Crater Basin and Tūwharetoa) still qualify as glaciers. The first two have each thinned and separated into discontinuous ice masses (although debris covered ice and narrow ice connections tenuously remaining in bedrock couloirs make the number of individual masses uncertain). The last two were identified in 1988 as dynamically separate glaciers: in the early 1990s the Ngā Pou Taunaha O Aotearoa/ NZ Geographic Board approved the name Tūwharetoa Glacier for the one that ends as an ice cliff truncated by Te Wai ā-moe/Crater Lake. By 1988 the Whangaehu (0.60 km<sup>2</sup> in 2016) had become the only glacier receiving ice from the Summit Plateau, the largest ice mass in 2016 (0.66 km<sup>2</sup>).

The Whakapapa Glacier has shown the most reduction over the decades. In the period 1930-1953 its terminal was probably as low as 2100 m (Odell 1955 in Eaves & Brook 2020) with a very young looking



Whakapapa Glacier ca 1950 (left, HK Collection) and 21 March 2021 (right) showing the huge loss of ice over the last 70 years. Photos: Harry Keys



Whakapapa glaciers area on 1 March 1993 (left, after the Pinatubo eruption) with 1992 snow still lying thick in the Gut in bottom centre, and 10 April 2022 (right) when only five small areas of ice were visible including wet areas from melting of ice covered by volcanic debris. Photos: Harry Keys

glacially shaped basin and moraine down to 2020 m at the lower end of what is now known as the Gut. Up to 1954 the glacier seemed to have been more or less in equilibrium but after then thinning dramatically increased with thinning in places exceeding 10m/year in the 1955 summer during a strong La Nina (Krenek 1958). Ongoing thinning and retreat led to the glacier disaggregating into two (Whakapapanui and -iti glaciers in the late 1950s with the lowest terminal at 2256 m near the top of the Gut in March 1962 (Heine and others in Eaves and Brook 2020). As a result of the long hot enhanced La Nina summer in 2021/2022

the Whakapapanui Glacier has shrunk to its smallest area since observations began to be recorded almost 100 years ago. Probably its too small now to be called a glacier. The Whakapapa still has glacier ice exposed down to 2600 m under the summit of Paretetaitonga and pockets of mostly buried ice lower down to around 2500 m. It probably still just qualifies as a glacier. The Whakapapa Glacier can be considered to have retreated by at least 2 km over the last century and thinned by as much as 100 m since the first photos that we have seen.





The largest ephemeral melt lake on the Summit Plateau, 18 May 2022. Photo: Harry Keys

The 34 year photo archive confirms that the winters following the huge 1991 eruption of Mt Pinatubo in the Philippines had unusually high amounts of snow due to volcanic aerosols cooling the climate for a few years. The EOS snowline these few years was as low as the moraines from the little Ice Age 200-500 years ago (see photos). All of Ruapehu's glaciers had gains in mass over these years but their flow was too slow (measured velocities 10-38 m/year, Paulin 2008) for them to have had time to advance. But apart from such unusual periods, several studies have shown that for small glaciers at these latitudes, summer temperatures exert

the main control on glacier mass (e.g. Brook et al 2011), while snow fall and drift have less influence.

Ephemeral ice-dammed melt lakes have come and gone from the summit area in recent decades. A melt lake was present up to the autumn of 1989 in the northwest Summit Plateau which was the lowest-lying part of this glacier at that time. After emptying later that autumn it left a drainage ice cave system up to 60 m deep which was explored by climbers from Wellington. After the 1990 autumn it became filled with snow and ice during the following good snow years and did not reappear.

However, in autumn 2016 a circular crevasse pattern formed in the now lower eastern side of the plateau. By March 2018 a pond had developed there whose maximum level was controlled by spillover into the Mangatoetoenui. But it drained later that autumn by a subglacial route probably via the Whangaehu Glacier. We explored the subglacial caves in May 2018 but could not access far into them. Since then, this predictable lake formation, expansion and drainage cycle has occurred every year. But this last season after it drained (by early May, Martin Grafetsberger pers comm) it had reformed by 17 May following heavy rain. It had become by far the largest ephemeral lake seen over the last 34 years and probably much longer. It may grow to become a flood hazard in future years, especially given the narrow crater rim above the Mangatoetoenui.

Based on my 2022 photos my preliminary estimates are:

- The percentage reduction in the volume of ice since 1988 is similar to, but may be greater than the loss NZ wide;
- Since 1988 the Mangaehuehu Glacier on the south side of the mountain and Whangaehu and summit area glaciers have reduced in extent the least (by up to about 10-20%) and those on the north side (Whakapapanui and -iti) by the most (up to about 95%). The Mangaturuturu, Wahianoa and Mangatoetoenui have decreased in area by 30-50%;
- All the glaciers, especially those on the flanks have thinned dramatically in 34 years. Two nunataks (areas of exposed rock surrounded by ice) have been "exhumed" on the Mangaehuehu possibly for the first time since 2005-2007. They were not exposed in autumn 2021 indicating there has been up to about 5 m of ablation (melting plus sublimation) at these nunataks in the last super-melt year alone! This compares with mean ablation rates of up to 1.1 m/year in the southern part of the Summit Plateau below Dome between 1955 and 1985 (Otway et al in Eaves and Brook 2020);
- Above Turoa, Gliding Gladys has disaggregated into five small ice masses none of which appears to be more than 1 hectare in extent. Ice in the head of the Slider gully system may also be smaller than 1 hectare but ice in Big Bowl may still be larger than that. The lowest ice elevation is now 2200 m at the terminus of the Whangaehu Glacier which has receded about 400 m since 1988;
- The altitude of the EOS snowline seemed to be above the mountain everywhere this autumn. Single areas of clean looking snow less than 1 hectare on each of the upper slopes of Mangatoetoenui, Mangaehuehu and possibly Tūwharetoa glaciers were photographed on 10 April but on 18 May were clearly older than last season's snow. This suggests that no mass accumulated anywhere on any glacier on Ruapehu in the 2021/22 glacier year, a further indication of the poor glacier "health";
- There may be as few as 12 glaciers left.





The south side of Ruapehu from Horopito in 1900 (Alexander Turnbull Library) just after the end of the Little Ice Age. The Mangaehuehu Glacier on the right is 2 km long with a thick lobe still occupying much of the space between the Little Ice Age moraines. Today the glacier is only 0.9 km long.



Mangaehuehu Glacier on 1 March 1993 (left, post Pinatubo) showing the end of summer snowline down to the moraines, and on 10 April 2022 (right, also showing the disaggregation of Gliding Gladys left of centre) with the two nunataks now exhumed. Glacier Entrance at the top of the lateral moraine wall on the true right is circled on these photos. *Photos: Harry Keys*

### 2022 work

Dr Shaun Eaves from Victoria University obtained high resolution images of the summit region on 6 March 2022 funded by NIWA as an extension of their EOS snowline program. They had a GPS in the aircraft connected to the cameras, and plan to build a Digital Terrain Model well controlled and accurate in the vertical direction possibly to a little as a couple of metres. Shaun believes it will then be possible to map older imagery onto the 2022 model to quantify volumetric change between observations much more



accurately than has been possible in the past.

In April and May 2022 I completed what is planned to be my last aerial survey of Ruapehu's glaciers. As noted this old visual mapping methodology is far less accurate and needs to give way to modern techniques. My 2022 photos and photo archive will be available to VUW and may help them to more accurately determine glacier extent by helping delineate the extent of volcanic tephra and debris cover. This has become extensive on Ruapehu following the loss of ice and emergence of older volcanic material as well as extensive deposition of tephra and lahar debris, especially in the 1995-1996 eruptions. (e.g. Whangaehu, Mangaturuturu, Summit Plateau).

### Implications

Cumulatively there's been a huge amount of ice lost from Ruapehu in the 34 years since my first survey in 1988. The insulating (protective) effect of volcanic debris and moraine may be slowing the melt in many areas but has not stopped the glaciers from losing mass. While there have been periods when the average glacier thickness has increased (e.g. 1991-1995, 2000, 2006) the overall loss of mass over the 34 year period far outweighs these short term increases. I'm convinced that the massive thinning is a trend driven largely by climate change, as predicted 30 years ago, and which is likely to continue spurred by rising temperatures and further strong La Ninas.

Ruapehu's glaciers, though miniscule on a global scale are yet another example of the loss of glacier ice worldwide that is contributing to rising sea levels. This rise will force very expensive adaption works in many coastal areas including ports. Slowing climate change by reducing emissions, particularly of methane and from burning coal, is increasingly urgent to minimise such impacts and costs.

The awareness of this need is weak compared to the strong understanding of the science underlying the change. In my own life I am trying in a small way to reduce my emissions by reducing flying in my work schedule, purchasing carbon offsets from reputable businesses and agencies to help compensate for aircraft emissions, walking more to use the car less, eating less meat and processed food, reducing food waste to minimal levels and making all organic kitchen waste into garden compost. Four years ago we upgraded our car to a lower emission model. Earlier we subdivided and had a smaller, energy efficient house built on part of our former section. Every little bit helps but until greenhouse gases in the atmosphere start reducing we need to reduce our emissions further.

### References

- Baumann, S et al 2020.** Updated inventory of glacier ice in NZ based on 2016 satellite imagery. *J. Glaciology*, v67, 13-26
- Brook M, J Dean and H Keys 2011** Response of a mid-latitude cirque glacier to climate over the last two decades: Mangaehuehu Glacier, Mt Ruapehu. *Earth Surf. Process. Landforms* v36, 1973–1980
- Chinn, T 2001.** Distribution of the glacial water resources of NZ. *J Hydrology (NZ)*, v 40, 139-187
- Eaves, S and M Brook 2020.** Glaciers and glaciation of North Island, NZ. *NZ J Geology & Geophysics* v64, 1-20
- Keys H. 1988.** Survey of the glaciers on Mt. Ruapehu, TNP – a baseline for detecting effects of climate change. DOC Science and Research Internal Report No.24. Wellington
- Krenek, L 1958.** Changes in the glaciers of Mt Ruapehu in 1955. *NZ J Geology & Geophysics* 2, 643-653
- Paulin T. 2008.** Glaciers and climate change, Mount Ruapehu, NZ [Master's thesis]. Victoria University of Wellington.

# STUBBORN ALGAE NEED TOUGHER CCD SOLUTION



BRENDA LAWSON

CLEAN, CHECK, DRY RANGER

Check Clean Dry (CCD) cleaning solution/ recommendations have been strengthened following testing by NIWA scientist Dr Kathy Kilroy.

The original 5% for 1 minute was strong enough to kill nuisance river algae *Didymosphenia geminata* – also known as 'Didymo' and 'rock snot'.

Newly discovered algae *Lindavia intermedia* is harder to kill. Also known as 'Lake Snow' or 'Lake Snot' – it's sticky and smelly, clogs filters, and has created large clouds of hanging algal material in Lakes Whakitipu and Wanaka.

The new recommendation – 10% for 10 minutes – can deal to this new threat. The change also compensates for some newer environmentally friendly detergents having less killing power!

So, double the dose, and lengthen the soak time if you are moving from one waterway to another!

Check out the Biosecurity NZ website for info on CCD & the complete list of decontamination protocols.

[www.mpi.govt.nz/check-clean-dry](http://www.mpi.govt.nz/check-clean-dry)



Helping event competitors Check, Clean, Dry.  
Photo: Brenda Lawson

## Check, Clean, Dry 2021/2022

It's been great to be advocating Check, Clean, Dry (CCD) around the National Park area again.



The new Check, Clean, Dry standard is 10% detergent for 10 minutes



Many will know of the Project Tongariro involvement in iconic annual events in the mountains and Tongariro Forest, with partners Victory Events, and Total Sport. Since 2005 the Check, Clean, Dry Team have been part of registration at these events – there to protect the streams crossed from invasive aquatic species, and to teach adventurous kiwis about the CCD process.



T42 participants showing off their CCD accreditation sticker on their registration. *Photo: Brenda Lawson*

As well as the CCD message we also require equipment to be free of mud and seeds. Registration night is busy checking hundreds of bikes and shoes. Thanks to great pre-event communication from some of our event partners this is much easier now than 10 years ago – with the majority of competitors arriving clean!

Finally, there's a new message in town for Check, Clean, Dry, so make sure you brush up on the new 10 for 10 protocol before heading out on adventures this year.

The last three years have been very difficult for event managers to keep running events during COVID-19 ups and downs. The Goat, run by Victory Events, went ahead, narrowly sneaking in with a lockdown starting a week later! Competitors were grateful to have had the opportunity to traverse Mt Ruapehu.

The Total Sport T42 went ahead as we came out of COVID-19 Red settings. Competitors biked or ran through the Tongariro Forest.



The Check, Clean, Dry set-up all ready to go. *Photo: Brenda Lawson*

# OPEPE RESERVE RESTORATION PROJECT



HARRY KEYS (TRAPPER & RESEARCHER) AND

NEIL BAXTER (TRAPPER/  
FORMER CHAIR OF FOREST  
& BIRD, TAUPŌ BRANCH/  
COORDINATION OPEPE PROJECT)

## Introduction

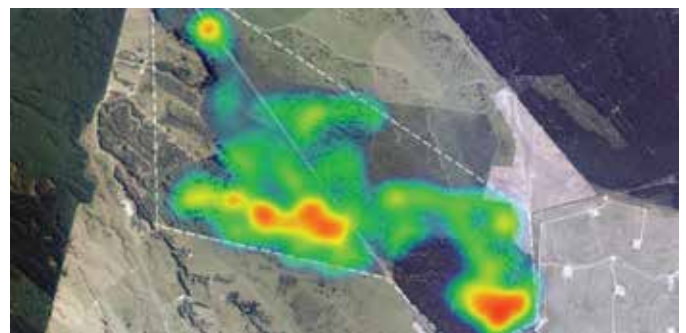
The Opepe Trapping Project was established in October 2017 as a joint venture between Predator Free Taupō (PFT, administered under Project Tongariro), Forest & Bird, and DOC. Although the control of animal pests is a management priority for Opepe Reserve, DOC recognised that its ability to manage the significant predatory threat to wildlife was limited and effective pest control in Opepe Scenic and Historic Reserve ceased in 2014. But despite predation, a range of forest birds still inhabit the reserve, including tui, bellbird/korimako, piwakawaka, kereru, riroriro, robin/toutouwai, whitehead/popokotea, ruru, tomtit/miromiro and rifleman/titipounamu with seasonal use by long-tailed and shining cuckoos. This article summarises the project to date and provides further background on the Reserve.

## The trapping project

The trap network has been steadily expanded over the project's lifetime and now covers most of the 200 ha Reserve. An article in the 2021 journal gives further details of the trapping expansion and summary of kills of eight species of pest animals. Our funding, largely provided by Waikato Regional Council but also donations, totalling \$8,400 in 21/22 FY, allows us to purchase a range of traps including DOC200s, Goodnature A24s and AT220 traps. This year money was also provided by the Employment for Nature scheme which allowed Epro to employ four youths to cut new tracks in the north-western area of the reserve that had not been previously covered with traps. As at 29 May 2022 there are now 288 traps and most of the reserve has some trapping (see map ex TrapNZ). 3742 kills have been recorded in TrapNZ since the project started (numbers shown in brackets are reported kills in the last year) including 2226 (890) rats unspecified, 592 (120) possums, 542 (120)

hedgehogs, 75 (15) stoats, 14 (8) cats, 17 weasels, 4 ferrets and 251 other pests including 187 specified as ship rats and a few Norway rats. According to these numbers, kills in the last year as a percentage of the 4.6 years of the project to date has increased for cats, rats and possums but stayed approximately the same for stoats and hedgehogs.

Although we tend to focus on the number of predators killed, we envisage that this project will have two main outcomes, namely biodiversity gain and community engagement. Community involvement is important and volunteer hours exceed 1000 hours per annum. Volunteers teach others about predator trapping as the reserve is very suitable for introducing new volunteers to predator control methods. To date there have been 34 volunteers involved who bring a range of experience and time contribution including onsite reviews and training sessions. In November 2021, we met to celebrate four years of progress and thank all who have been involved. The historic background, data on predator kills, trap efficacy and types, and monitoring techniques were covered along with networking of volunteers with food and drink supplied. With the pandemic, such activities have been restricted.



Heat map from TrapNZ of raw catch data for rats from all traps over the last 13.5 months. Data are unfiltered for trap density or type, trap nights or missing records but show the overall extent of trap deployment.

## The Reserve

People with a casual knowledge of Opepe will know it for its tall native trees and its role in the NZ Wars when in June 1869 forces under Te Kooti surprised and defeated an Armed Constabulary unit there. A small cemetery holds the graves of nine of the troopers who lost their lives. Another three graves are of people who were associated with a Redoubt and



the surrounding village and infrastructure that were built for military use after the military engagement.

The Taupō end of the first Napier-Taupō Road was begun in 1869 under a contract to Poihipi Tukairangi, with many hapu involved, and completed by early 1873. A telegraph line from Napier to Taupō was erected by the AC from 1870 using totara posts pit-sawn at Opepe etc. The current highway in the Opepe area was built in 1961-1962 with the Mohaka bridge being completed in October 1962. These roads split the Reserve but the old road is steadily being reclaimed by forest.

But there is much more to Opepe than this. It represents a rich tapestry of significant parts of the natural and human history of NZ, only some of which is documented. To further illuminate this rich history, some questions have been investigated (Keys, unpublished report in progress with extensive references). Publications like those of Wall, Stirling and John (2009) 'A Māori history of north-east Taupō' and others including those related to Treaty settlement contain important whakapapa and information relevant to Opepe. Such documents have told at least part of the Opepe story. Very small extracts from them are contained here to emphasise a fundamental part of the history of Opepe and its people which need to be better known and appreciated.

### Why is the forest there?

The podocarp forest is a remnant of the forests that developed after the Taupō eruption ( $232 \pm 10$  CE) had destroyed the existing forests within about 80 km of the vent now occupied by Horomatangi Reef in Lake Taupō. There is a clear scientific consensus that the forest is not a remnant of an earlier forest that somehow survived the eruption. Forest revegetation was "complete" within a few hundred years across the plains of the Central Plateau (Clarkson et al 1986, and summaries by Rogers et al in Silvester et al 2009).

Accomplished NZ botanist AP Druce (Atkinson and Druce 1959) believed that podocarp forests in this part of the volcanic plateau were never continuous after the Taupō eruption but rather part of a dynamic



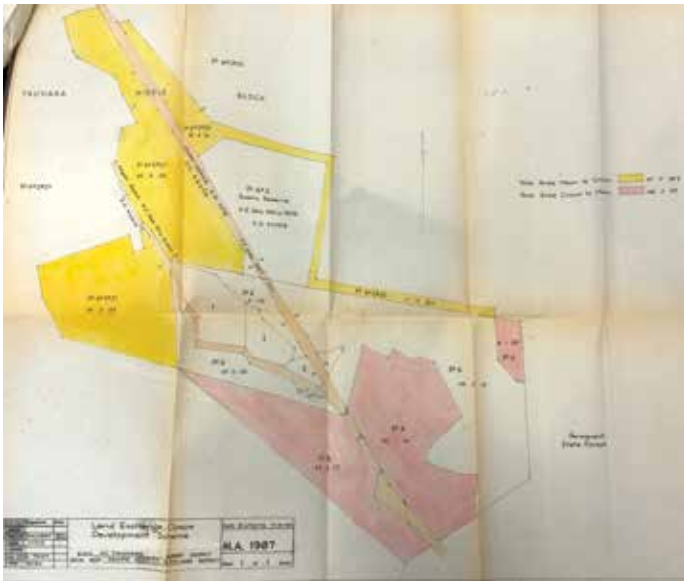
A well exposed road-cut section 1.6 km west of the bush (which is visible in the background on the extreme left) reveals the >3 m thickness of deposits of the main phases of the Taupō eruption (HK photo annotated by David Lowe, Waikato University). Up to 4 m of volcanic deposits are exposed in road cuttings beneath the old growth part of Opepe Bush. Some of the lower deposits there may be from earlier eruptions also from Taupō (e.g. 'Mapara', 'Whakaipo' & 'Waimihia' eruptions c 2,000 to 3,400 years ago).

mosaic of forest and scrub communities. Apparently scrub and younger bush of varying but lower heights surrounded "islands" of tall forest, known as motu to tangata whenua. In areas that were low lying (e.g. frost flat basins), poorly drained or filled with pumice wash, frost and low soil fertility did not favour the growth of tall forests. They preferred elevated areas like Opepe, Rotoakui and perhaps Motukino, Motukiori and Motukakaho. Low forest has apparently always surrounded the tall forest at Opepe though no doubt it varied over time.

The emergent podocarps and canopy of kamahi/mahoe now present are a late successional forest which survived fires in the Polynesian and colonial era and milling later. Younger successions of forest around its margins, including broadleaf and kanuka forest developed after fires, milling (particularly of totara) and early land clearance. Later of course, legal protection of the forest (next question) was vital for the protection of what is there now because of the valuable timber present.

### Why and when was the reserve created?

The NZ Archives we visited in 2021 show that historic and scenic values were the main reasons for the initial gazetted and legalised protection in 1881 (temporary police reserve) and 1961 respectively.



Reserve proposal for Opepe, at October 1970 showing proposed land exchanges at that time (NZ Archives)



Satellite image of Opepe Reserve, 2012 (Taupō District Council)

That is, protecting the 1869 AC graves and scenery of emergent podocarps were the primary reasons (as well as a need to legalise the area of the redoubt, village and the stock yards.) This followed public and political interest up to Prime Ministerial level. The presence of the trees as a timber resource and later the importance of the podocarp forest as a unique remnant of post-eruption forests, including the scientific value of the latter and ecotone boundaries, were also important. Gazetting for protection first occurred in 1881 to protect the graves and an area surrounding them and the redoubt. In 1960 ca 384 acres [155 ha] were revoked from that “temporary” police reservation to become a protected area, for which £100 was eventually paid to the Māori owners.

Some of the value to Māori of Opepe and its timber was partly encompassed in a further ca 75 acres [30 ha] taken in 1961 from the owners (under the Public Works Act) for a Scenic Reserve. Māori were paid £20,375 (\$40,750) by the Māori Land Court for the market value of that timber slightly in excess of what they asked for, and three times the amount the government officials initially offered. In 1960 Lands & Māori Affairs departments had estimated the cost based on timber value could be up to £12,000.

From late 1961 options for land exchanges were discussed between the Crown and Māori owners of surrounding Tauhara Middle blocks (e.g. May 1971 “7<sup>th</sup> compromise & first agreeable to all [sic?] parties”). This led to an enlarged Reserve of [ca] 190 ha as a Reserve for Scenic and Historic purposes. Further gazetting in 1982 and 1988 led to the Opepe Bush Scenic and Historic Reserve. The DOC Conservation Management Strategy 2002-2012 records the Reserve (Conservation Unit 60074) as being 187.3137 ha.

There is a significant discrepancy between the area of forest now present at Opepe and the reserve’s statutory boundaries. This discrepancy is not yet understood by us but may be due to not all iwi being involved in the discussions in the 1970s-1980s.

In 1972 two urupa were gazetted separately on the edge (but not legally part) of the reserve. Māori had used Opepe’s forest resources for centuries while living there, and presumably are interred in other urupa as well but we found no other records in the Archives. In 1879 Wi Maihi Maniapoto and the other two trustees appointed for the minors in the Tauhara land title had agreed to a reserve (“Opepe ngaherehere”) but this does not appear to have been specifically recognised by the colonial government. Opepe was a strategic spot where the Napier-Runanga-Taupō (Tapuaeharuru) track met the tracks from Murupara-Urewera and Waitahanui-Tokaanu.

Opepe featured in peace agreements between Taupō rangitira and iwi waring against them between the late 17<sup>th</sup> or late 18<sup>th</sup> centuries to the 1820s. Pakira, descended from Tutemohuta and Tūwharetoa, lived for some time at Opepe with his wife Hinearō from Tuhoē about 250 years ago according to Wall et al (pp 21- 40). There were a number of individual kainga in the area in pre-colonial times. Opepe may have been the main kainga in Pakira’s time and for Tutemohuta and Tauhara iwi/hapu. Other hapu/iwi including Ngati Tahu-Ngati Whaoa also have links. A famous son of Opepe, the chief Te Rangitāhau, was born in the late 1820s or early 1830s near Ōpepe (possibly the kainga where the AC were in June 1869) but he also lived at Rotongaio. He died in 1900 and is said to be buried at Opepe (Wall et al 2009 pp 51-60, 71-80, 144).



Earlier occupation of the area is implied by the discovery of an early type of stone adze associated with a partly finished waka on a ridge to the east of the bush (Hosking 1968). A younger waka tiwai was found in 1952 near its rotten totara stump surrounded by young (4-6 m tall) manuka-kanuka forest at Te Ranginui just north of the Reserve, estimated then around 100 years old. In 1967 Trevor Hosking organized its recovery – it is now in the Tūwharetoa gallery at the Taupō museum.

### Is the reserve viable in the long term?

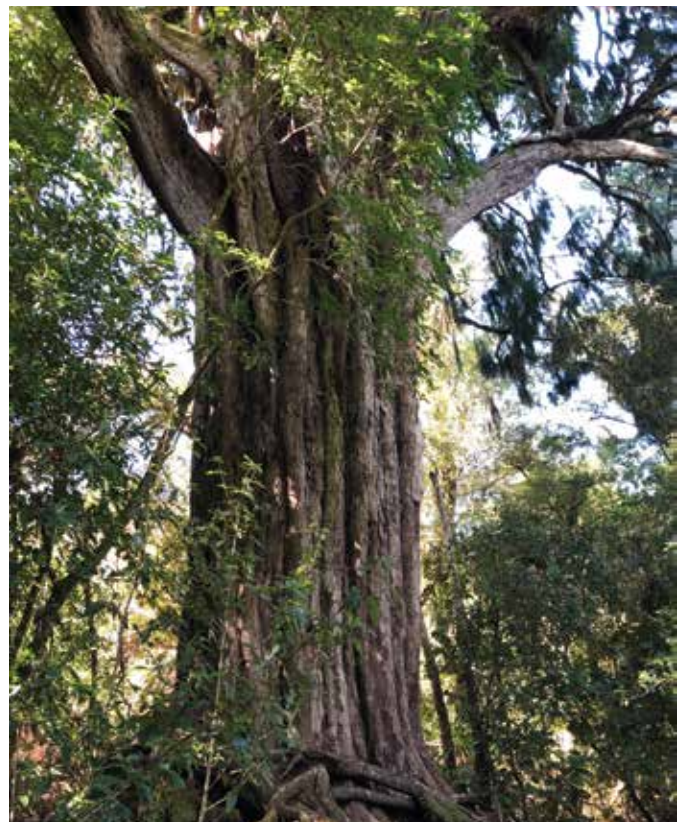
The authors of two major botanical studies carried out over the last seven decades give a good description of the forest and its succession (Atkinson & Druce in the late 1950s and Clarkson in the early 1980s) and gave no indication that the forests were not viable. Regeneration of all five major species of podocarp and ongoing growth and succession in all the forest types represented are still occurring throughout the reserve. This is suppressing lower stature non-native species in most of the forest. Many palatable plant species are present in the browse tier throughout the reserve so healthy regeneration is occurring in the face of some browse. Non-natural native species (silver and red beech, kowhai and *Veronica parviflora*) were introduced into the carpark area which is of scientific concern, but they do not seem to be spreading. Non-natives, like hawthorn spread from the original AC plantings and broom, are still dominant in some higher-light margin and old cleared areas. These include the 60 year-old pumice dumps created during the building of the current SH5 in the early 1960s and on some land added to the reserve in the 1970s. But even here natives are starting to emerge continuing regeneration processes that will occur over the next decades and centuries if there is no further disturbance like fire.

Some exotic conifers are present especially in the western, northern and southern margins and within those forests and could be selectively poisoned. Some older specimens were planted and likely have cultural value, and potentially provide long tailed bat breeding habitat so consultation, selection and further research would be needed first. Old wildings along the old highway and the old planted trees that are many decades to about a century old are becoming senescent, falling over and generally not being replaced. Younger wilding pines are present and common in places and likely easily controllable but like two isolated occurrences of garden escapees (montbrecia and *Vinca minor* (periwinkle) they do not seem to have become more common..

The confirmed presence of deer and wallaby plus windfall (including onto boundary fences) highlight the need for ongoing management vigilance. The regional council has reported one wallaby killed and recently another sighting was reported. Pigs, pig rooting and gnawing of bark at the base of trees seem quite common.

Current pest control over the last three decades is too late to save a native frog species (reported several decades ago) but may be contributing to a healthy bird fauna. Probably trapping alone is not likely to suppress pests to low enough levels to allow full recovery of forest bird species. Quantitative bird monitoring is not viable in a small reserve like Opepe so at this time we are trying to record all sightings of tomtits, robins and other less commonly seen species. *Dactylanthus taylori* is still present heavily skewed towards male plants and like elsewhere has suffered from collectors and browsing by possums and pigs. Evidence of ongoing fossicking for historic artefacts seems to be uncommon now. The condition of historic fences continues to deteriorate with age.

Windfall of the emergent podocarps is ongoing especially in very strong gales from the south-southeasterly quarter. New research would be useful to quantify the current population of podocarps and confirm future forest succession, including whether podocarp growth is keeping up with their windfall.



Largest rimu at Opepe, approximately 1000 years old.  
Photo: Harry Keys

# GREENING TAUPŌ DAY



**RACHEL THOMPSON**

KIDS GREENING TAUPŌ  
EDUCATION COORDINATOR

On 3 June 2022 we held our annual 'Greening Taupō Day'. All of the work that Greening Taupō and Kids Greening Taupō do in the community and with schools is provided free of charge, so this was a chance for people to give back.

In the week leading up to this day, local businesses had green window displays and raised money, with Town Centre Taupō offering prizes to the winning businesses. 30 Local schools and ECE centres held 'dress in green days', fundraised, and carried out conservation activities as part of a schools competition.



A major event and achievement for Greening Taupō and Kids Greening Taupō.

Contact Energy awarded a prize of a \$1000 restoration planting, which went to Waipahihi Primary School. Mitre 10 awarded \$700 worth of prizes, which were shared between Taupō Kids Community, Taupō Educational Preschool and Taupō Children's Corner. Huka Honey Hive ran an art competition for all local school children, collecting thousands of entries.



A pile of 'dirt' is a natural magnet for young kids!



4500 holes planted with native trees by 1500 children and adults.



Such a hive of activity



Colour me green!





Some of those who pulled the event together - Sue Shaw, Shawn Vennell, Jo Allen, Shorty (Nicki Hughes)



Sisters in conservation - Kiri working for Project Tongariro and Nina for Department of Conservation



End of a perfect day and despite the weather Greening Taupō, Kids Greening Taupō, Project Tongariro, Taupō schools, Taupō District Council and many other organisations achieved a major planting.

The main Arbor Day planting event took place at Crown Park, where 4500 native trees were planted by over 1500 people! The mayor opened the day and planted the first tree.

The Greening Taupō Day event has become a festival of environmental education, with free food, music, and many local experts on site with free activities for the kids. Ruud Kleinpaste (The Bug Man) ran a bug hunting activity with Waipahihi School student leaders. Forest and Bird, DOC, Taupō District Council, Waikato Regional Council, Enviroschools, Tongariro Trout Centre, Sanctuary Mountain Maungatautari, Wingspan Birds of Prey, Mynoke, Epro, Civil Defence, Taupō Disc Golf, Kids Bike Taupō and many more organisations were there to entertain and educate. Big thanks goes out to the many sponsors, including, Trev Terry Marine who cooked 1000 free sausages, The Bistro for providing free hot soup, Pak n Save for the buns and condiments, DJ Alexi, Mediaworks, Mynoke, Contact Energy, Mitre 10, Taupō District Council, Korio and Trees that Count. It was amazing to see the support that the whole community had for this day.



Kiri and Shorty with two green helpers. Now where do you want this bucket of mulch?



Helpers young and old!

# WHIO CONSERVATION EFFORTS IN OHINETONGA RESERVE, OWHANGO



MITCHELL BLACK

RANGER – COMMUNITY | AO  
HĀPORI

On a beautiful autumn day upon the bridge over the Whakapapa River, we met with Sally Lashmar and Peter Brennan, (co-founder and co-chair of Owhango Alive) who graciously showed us through their area of care in Ohinetonga Scenic Reserve. Starting in 2011 with little more than passionate enthusiasm and less than two-dozen second-hand traps, this community group's conservation efforts have become some of the most successful in the region, growing to over thirty members and almost three hundred traps in the past decade.

Walking along the tracks to regular whio viewing areas, Sally tells me of how they have multiple trap lines along the tracks and banks of the Whakapapa

River consisting of some one hundred and fifty individual units checked at least twice a week. Pulling out her ever-present screwdriver she hops to the side of the track and begins to reset the trap nearest to the path, withdrawing the dismembered remains of a rat from the iron jaws of the trap box.

As we press onward, she and Peter remark on the tenacity of wild stoats and how they are one of the biggest conservation threats to whio in this habitat. They are known to predate on the eggs and brooding birds nested in the rocky shore along the riverbank, which makes predator trapping with their habitat essential for their survival.

I'm pointed to stands of native bush which had evaded the sawmilling of the nineteenth and twentieth centuries and Sally highlights the areas where volunteers have spent days clearing and weeding invasive species such as blackberry, honeysuckle and privet which constantly threaten to choke out the undergrowth. As we approach the viewing area, we are greeted by signposted interpretation with fun facts about whio, their habitats and how the little duck which shares the ten-dollar note with Kate Sheppard, is one of the rarest native taonga we have.



This clearing was the location of the recent successful release of five new whio on the 22 April earlier this year, where some sixty or more members of local communities, iwi, the Department of Conservation, and the Minister for Conservation had gathered to support these birds on their journey from captivity to release into their natural habitat. We wait for a few moments, taking in the pīwakawaka/fantail and warou/welcome swallows hunting insects above the water. As Peter and I stand upon the bank of the river we cast our eyes across the rapid, pristine waters to see the ruffle of well camouflaged feathers among the large grey rocks on the far side of river, as a small group of whio





Local whio come to investigate the newly released whio at Ohinetonga Scenic Reserve. *Photo: Owhango Alive*

make their way out into the fast-flowing water and paddle downstream out of sight.

The birds which were released here have come from Te Papa Atawhai's Breed for Release programme. A captive management initiative which began in the early 2000's when it became clear how critically endangered these native taonga were becoming. These birds were hatched in captivity where the ducklings were raised and monitored until they were of age to be moved to the hardening facility in Turangi. The hardening facility, as its name suggests, is essentially a kind of duckling gym for the fledgling birds to live in safe conditions and train their leg muscles to paddle against the strong currents of the fast-flowing river habitats where they will live in later life. Once the team at the hardening facility are confident the whio can withstand the trials of the environment, the birds are set for release back into their native ranges depending on where in the country they come from, whilst the breeding pairs are periodically retired from the project, so that they don't spend their whole lives in captivity.

The successful release of these birds is yet one more small step in the ongoing conservation of a native

species which numbers fewer than most species of kiwi in the world. The progress is promising but these projects could not be undertaken without the contributions of community volunteer efforts and the support of the Whio Forever programme.

The partnership between the Department of Conservation and Genesis Energy saw numbers nearly triple from less than three hundred breeding pairs to over eight hundred and sixty in the ten years from 2011 to 2021. Tongariro Forest is serving as a bastion of these endangered birds here in the region with over one hundred breeding pairs in the river systems within the forest and along the greater Whanganui River tributary network.

With fifteen facilities participating in the captive breeding and release of whio back into the wild, the work continues to restore this little blue duck to our rivers across the country however it will rely heavily on the efforts of our community conservationists as we work toward our goal of Predator Free 2050.

# IAN BLACKMORE – TWO CONTRASTING PERIODS AT TONGARIRO NATIONAL PARK



ROB GREENAWAY

WITH IAN BLACKMORE

*In late 2021 Rob sat down with Ian Blackmore in his lovely house in Richmond to capture some of his memories of his ranger days in Tongariro National Park in the 1960s and '70s, as well as stints in Westland National Park and his final role at Arthur's Pass as Chief Ranger. Ian had also taken the time to pen some of his recollections. Ian sent further details of the 1975 lahar past Whakapapa Village in emails to Harry Keys. The article is a combination of Ian's writing, the conversation and the emails."*

Ian worked a series of jobs before applying for the position of National Park Ranger, including fruit picking in Nelson, cheesemaking in Temuka, and making barrels in Matura, all the time maintaining a keen interest in tramping. While in Temuka Ian applied for a Park Ranger role at Tongariro National Park, and went through series of interviews with the Lands & Survey Department in Invercargill, Matura and finally in Wellington. When employing staff in those days Lands & Survey would look at whether you were a trumper or a carpenter. Ian was practical and had an interest in the outdoors, and had also worked for an Acclimatisation Society, so knew a bit about wildlife. On the day of his appointment he travelled to Tongariro to meet the other staff at the Park. There weren't many.

At Tongariro in 1960 the total employed staff at the Park were:

- The Chief Ranger, Alec Peters, who was followed by John Mazey in July 1961;
- An assistant ranger, Jim Purdy, who Ian replaced. Jim had been an active member of one of the greater Wellington tramping clubs;
- Australian ex-policeman ranger Ralph Harris who returned to Australia (later writing 'Recollections of Ruapehu [1950s]' published in 2011) and was

replaced by Noel Blackbourn;

- Bill Hislop who managed the Whakapapa Motor Camp, starting in 1961, and became a Ranger. Bill was a capable builder who worked on various construction projects in the Park;
- A seasonal extra to look after the ski patrol in winter. Max Pemberton of the Hutt Valley Ski Club was the ski patrol supervisor in 1960.

The Chief Ranger lived at Whakapapa Village near The Chateau in a house designed by the Ministry of Works. Ian had a little cabin with a shower but no toilet, located at the Tourist Hotel Corporation (THC) staff quarters ("not far away, but far enough"). The other Ranger lived in the men's quarters of The Chateau. Meals were provided at The Chateau staff dining room. Ian preferred cooking for himself.

*Ian never felt isolated, but it was a long way to town. National Park township had a butcher shop and a little store, but they had to go into Taupō to buy most things.*

The Chateau Manager was on the Park Board, and some people thought he ran the Park. Ian thought that he might have had some influence on Alec Peters, but when Alec departed, Ian (then aged 24) became Acting Chief Ranger, "and the Chateau Manager certainly didn't influence me" he says. The Chateau operated the ski hire and mountain shops at the time. Later, THC ceded control of some services in the Whakapapa Village to the Park under John Mazey's stewardship.

One of Ian's first actions as Acting Chief Ranger was overseeing the instalment of an ex-WWII wire telephone cable between the ski field, as well as telephone lines for the Rangers, shops and to the National Downhill Lift (the wire was replaced after four years by a protected cable).

Management planning for the Park in the early days was to a large degree dictated by the suggestions



of user groups, such as skiers and trampers, who communicated their priorities to the Park Board. There were quite a few ski lodges already built when Ian arrived, and in 1960 there was a boom with four new lodges built at Whakapapa (Alpine Sports Auckland, Wellington Tramping Club, Rangatira Alpine Club from Auckland and a Matamata club). Ian attended all their openings, usually around Queen's Birthday Weekend.

The ski fields required a lot of work from the Park staff, cleaning up rubbish, providing toilet and rubbish facilities and communications. Nobody gave much thought to the problems clubs and their activities were creating. "Perhaps they should never have gone there in the first place?" One continuing problem was septic tanks, which never operated properly. There was often an area of green growth showing where the discharge wasn't working correctly – often caused by long periods of no use and then sudden activity.

The Tongariro National Park Board oversaw the work priorities for the Park, in accordance with the National Parks Act. There wasn't a close relationship between the Park and Lands & Survey District Office (Wellington for Tongariro). The Lands & Survey Department provided a secretary (Stafford McDonald), and a budget to the Board. The Chair of the Board was usually a Commissioner of Crown Lands, but, due to the scale of the District, at Tongariro it was an Assistant Commissioner (Noel Coad, later Director-General of Lands & Survey). Tongariro was therefore run largely independently by the Board, although it also came under the ambit of the National Parks Authority which was chaired by the Director-General (David Webb from 1958).

Ian describes John Mazey, Chief Ranger from July 1961, as a very good boss. John was a draftsman with a tramping and skiing background and, importantly, got on well with Ray Cleland, the recently appointed National Parks Supervisor. Ray had previously been a Ranger at Arthur's Pass, and started his new national position in a little office at the top of the Lands & Survey building in Christchurch. He was later shifted to Wellington, which he didn't like. He stuck it out for a while but when Aspiring National Park was established "he was down there like a shot".

John was interested in the staff and their training, especially in first aid and park management. Ian says John was "interested in doing things better than they'd been done in the past". There was quite a resurgence in national park management systems at that time, particularly after a visit by an American national park ranger, Myron Sutton. He promoted national park management plans and got John quite excited, along with Vince McGlone who was Chair of the Tongariro

Park Board at the time. Lands & Survey also employed a parks planning officer, John Stewart, a surveyor from Palmerston North. He would assist with applications for new lodges, survey their sites, and work on other park development projects. He also surveyed what Ian describes as a far superior route to the existing Desert Road, passing through parts of the Park but it never gained any interest.

In the 1960s the Park focused mainly on building and updating huts and tracks. Many existing ones were quite ancient. The Round the Mountain Track was still being built and was relatively crude. In 1965 Ian worked on the Lockwood-style Whakapapaiti Hut, which was the first time a helicopter had been used in Tongariro for construction work (helicopter's hourly charge-out rate was £75). The following year the Ketetahi Hut was built. Ian chose the site which John Mazey approved.

Ian also assisted the Department of Scientific and Industrial Research (DSIR) at the Seismic Observatory. He changed seismographic charts, developed the recordings which were taken on photographic paper, and posted them to Wellington.



The 'Whakapapa Cat', designed and built by Tom and Jim Bates in the early 1960s to carry skiers and sightseers from the topmost lift at Whakapapa to the Col above Crater Lake. *Photo: Arthur Bates*

Ian oversaw the construction of a pre-fab shelter on Dome Peak, which had been started prior to his new role, but material onsite had been broken. In the early 1960s there was a commercial Sno Cat operation that took visitors up to the Crater Lake. However, it left large track marks up the glacier and many people were against it. Another large Sno Cat was built and went through two owners, John Willems and Barry Pearson, but was too large and never worked.

Ian never felt isolated, but it was a long way to town. National Park township had a butcher shop and a little store, but they had to go into Taupō to buy most things.

Many items for the Park itself were supplied through Colsons at Taumarunui. Some wood was supplied locally by the Puketapu Timber Company at National Park, such as 2x2" totara track poles, some of which might still survive.

Weed control was an annual operation, largely via manual control with backpacks and herbicide. A mechanical pump on a trailer, towed by the standard-issue Landrover, with a 44 gallon drum of 2,4,5-T, was used to treat the broom on roadsides between Whakapapa and Waikune. It always returned. Heather was ignored as it had spread too far. *Pinus contorta* was a problem right from the '60s, and in particular was



*Pinus contorta* wildling in the Whangaehu Valley, one of the very few encountered in the TNP backcountry these days.

Photo: Harry Keys

all over the Desert Road-side and to high altitudes. Bill Cooper was responsible for the southern end of the Park and took a great interest in eradicating pines, while the Army was doing their bit on their side. In summer, students were also employed. There was some excellent cooperation and Ian notes that it's very nice to see the difference (i.e. few wildling pines) nowadays.

Summer interpretation programmes started in a small way in the '60s with Ian and other rangers giving a little talk at the overnight shelter at the Whakapapa

Motor Camp in the evenings, for example. Ray Cleland arranged for a carousel slide projector, funded by the McKenzie Trust. The idea of interpretation was generally copied from the USA, and Ray brought some ideas back from his travels there. Ray originally started interpretive talks in Arthur's Pass where they had a suitable building. There wasn't one at Tongariro until the Whakapapa Visitor Centre was built.

The ground for the Visitor Centre was prepared in 1961 by the Ministry of Works (MOW). Ray Cleland might have had a hand in its design, and John Mazey upset the MOW by re-orienting its frontage "just a little bit." The MOW team was concerned that the ground hadn't been compacted enough in one corner, "but the building is still there" says Ian. The Centre opened in 1962 and the Chief Ranger's new house was part of it. John didn't like that, since people came knocking at all hours. He wanted accommodation elsewhere, so the house component was converted to offices. Ian, Ray Cleland and Alan Braid from Westland (now also retired to Richmond) worked on the stonework on the exterior.

Winter was very busy with skiing. The Park had a good relationship with Ruapehu Alpine Lifts (RAL) and servicing the ski fields was a large component of the Ranger's roles. Buses would turn up from all over, from Auckland to Wellington. Mana Transport would hire their furniture trucks to ski groups who would throw their sleeping bags in the back and sleep on the journey. Many groups were poorly prepared with the wrong clothes and equipment. They'd go up in the Goats and perhaps hire skis from the THC to use in Hut Flat and Happy Valley, "and if there was a bit of dampness in the air, they'd drop like flies" recalls Ian. The Goats were originally ex-US Army four-wheel drives, left-hand drive and operated by Chateau Transport.

Roy Turner ran the National Downhill Ski Tow in opposition to RAL from 1961. He worked very hard to establish it through 1960. His concession ran for only four or five years and the Park Board refused to renew it as RAL had a right to use the area. Jimmy Johns, an engineer from Stratford, was Roy's main partner, and with the Chair of Board (Vince McGlone) he did a deal for RAL to take over the area. RAL quickly added lifts to reach Roy's tow. Happy Valley was later developed independently by John Willems with rope tows, and RAL then bought him out.

Ian left Tongariro in 1966 after marrying his first wife, Nicola Titler, who was English, and travelled to the United Kingdom with their daughter for 12 months. When he returned there was no work available in the Park, and after a stint on the Tongariro hydro scheme



he was employed for three years he was a Fisheries Officer based in Turangi. He wanted to go back to parks, and ended up in Westland National Park. Ian recalls it as a great place but with fewer active users compared with Tongariro.

He began work in Fox Glacier in 1971, where Peter Fletcher was Chief Ranger. Visitors mainly looked at the scenery in those days ("they didn't wear it out with their eyes") and tramping and climbing was just on the increase, with several deaths of young climbers who were exploring new terrain. Ian met his second wife Marie, who worked at a local motel, at Fox Glacier, and they were married in 1973.

While at Fox Ian did a six month exchange with a Ranger from New South Wales National Park. When the NSW Ranger returned to Australia, he told Ian that Ian had been the successful applicant for the Senior Ranger position at Tongariro National Park.

When Ian returned to Tongariro in 1974 for his second period of employment, staffing had markedly changed. Ian had 47 staff in the middle of winter, including lots of car parkers. John Mazey was still there, but only for a few weeks. Kerry Mawhinney took over as Chief Ranger, coming from Egmont. Bill Cooper was Senior Ranger at Ohakune. Paul Green started that year at Ohakune, along with Murray Reedy and Herb Spannagel as Rangers at Whakapapa with John Clay and John Blunt at Turangi – and later Neil Simpson. Neil Clifton started in 1975 and Ian attended his farewell 37 years later. Sherpas from Nepal came over to learn about park management and conservation, and studied at Lincoln and went on to work in both New Zealand, Nepal and the U.S.A. The work still included renewing eroded tracks (but with a fulltime employee), eradicating wild pines, and managing broom and gorse.

In 1976 Ian and Marie had their first daughter, Heidi, in the middle of winter. All the roads were blocked with snow and Ian used a Toyota with chains to get out at 4am. "A beautiful drive" he recalls.

All Park staff were housed close together at Whakapapa, so life at the Park was relatively social. Marie and Ian also bought a boat for use at Lake Taupō, Whitianga, Bay of Islands, Kawau Island, Tutukaka, and Lake Tarawera. Staff housing had improved by the 1970s and Ian had a "proper house" at Whakapapa Village. John Mazey had learned how to use the Government's budgeting system ("the bane of all Senior Ranger's lives."). 31 March was the end of financial year and the Department wanted final accounts to be in around the 1 March. The budget was often only confirmed several months into the year, and



Ian and Marie in earlier days. Photo: Ian and Marie Blackmore

staff had to spend it as quickly as possible and get the invoices back to Wellington. Surpluses had to be spent and buying such items as new vehicles at the end of the financial year was common. The new staff house was designed by John Mazey and, with spare budget available at the time, he wrote out a work order to buy all the materials from a business in Taumarunui before they were available. He was lucky no one went bust in the meantime says Ian.

Senior Ranger work was mainly office-bound. A lot of time still went into managing the ski fields, before the issuing of the concessions to RAL in 1977, after Ian had left. One staff member working on cleaning toilets at the time remarked to Ian, "THC and RAL get all the money, and we get all the shit." "Which was quite right to a degree" says Ian. The Park also still provided ambulance and safety services, relying on significant volunteer effort specially in ski patrols. Rangers were expected to be Jacks of all trades.

Ian was conscious of living on an active volcano but was never worried. He thought about it a lot while stuck with two others in the Dome Shelter in very severe weather for three days while looking for a Colombo Plan student from Borneo. (He was found in the shelter thinking he was at Blythe Hut).

The most memorable thing for Ian about Tongariro was "just being there" says Ian. Several spectacular eruptions were notable, particularly Ngauruhoe in 1975. The Rangers had been aware the volcano was warming up for a short while. The first explosion left a massive convoluting cloud in the sky, and it was followed by a series of eruptions. Thankfully the ash drifted away from Whakapapa. The team drove immediately to set up an SSB radio at Mangatepopo Hut (Marie also came) from where they could see heat

shimmering above the crater. Immediately before each eruption the radio would crackle with interference and a huge boom would follow. There was a lot of dust in the air and each shockwave was obvious through to about 5pm when the volcano went quiet. On the same day, Herb Spannagel was escorting a school group near Red Crater, and they were pummelled with ash and small stones. They carried their packs over their heads for protection and came out "looking like coal miners."

Ruapehu erupted at 3:59 am on 24 April 1975. Ian's emergency phone rang, but there was no one on the line. Another call came 10 minutes later, and Ian assumed that it was some prankster. He returned to bed but could hear what sounded like a jet plane overhead, which slowly grew louder. After damaging some ski lifts, a lahar came down the Whakapapanui River and topped or splashed the surface of the bridge



Erosion and damage to the second chair and poma at the bottom of the Staircase on Whakapapa Ski Area caused by the April 1975 lahar. *Photo: Kevin Griffiths*

above the village but did not result in any flow down the road. Some residents in Hepi Terrace especially those nearest the stream got a big fright.

Murray Reedy got his family out in a hurry and, with someone's dogs barking and other vehicles leaving, Ian thought it was probably worth getting out of bed. He went to the Park Headquarters to let everyone know. There was no general alarm (as there was no system on the mountain at that stage, although it was planned) and people made up their own minds whether to leave or not. The lower SH 48 bridge was unaffected. Ian's earlier mystery phone calls were caused by cables being torn out by the lahar at Delta Corner and The Staircase. Ian phoned the Tokaanu Power Station to warn them of the lahar in the Whakapapanui River heading their way. Unfortunately, they relied on a slow, three-hour closure mechanism for the gates on the intake, rather than the instant emergency closure, and so ended up with a lot of material in the hydro scheme

and into the Tongariro River.

Ian assisted with search and rescue as required. They had a few funny stories like people who walked out and hid deliberately, occasionally after arguments. There were also a few sad deaths, such as in 1963 when Colin Crosby was separated from his friend on Mount Ngauruhoe and died of hypothermia. Although Colin's climbing companion had seen Ian at the Mangetepopo Hut earlier in the day, he didn't report him missing until that evening at the Park Headquarters. This search involved Bill Bridge from the Tararua Tramping Club (who the police later took on to train their staff), the police and an independent search and rescue team. It was the first time a helicopter not hired by the Park was used (the police paid). The search took three days, and Colin's body was found near Tama Lakes. But deaths were relatively infrequent at Tongariro.

Ian recalls that while at Tongariro in the 1960s, they did the same work as at other parks, but they did not feel part of an integrated national parks network. Tongariro had its closest relationship with Egmont National Park (now Taranaki). The staff from Egmont would visit occasionally, including Wally Sander and Ted Atkinson. While they had the same uniforms, the Parks were managed entirely separately by their Boards through to 1981, when the National Parks Act was replaced.

Ian completed five six-week block courses at Lincoln College for a Diploma in Parks and Recreation Management, starting in 1975 and graduating in 1980. The block courses included natural history, landscape, park management and surveying, and he completed a dissertation on weed control at Arthur's Pass. Pat Devlin was one of his lecturers, whom Ian recalls starting at Tongariro in 1964 to help with the interpretation programmes, and doing "an excellent job".

In 1981, when Ian was Chief Ranger at Arthur's Pass, he noticed a big shift in management. After the new Act came into force, he was left alone as Chief Ranger for about a year until "someone in Lands & Survey thought we'd better have a committee to manage these parks." A management committee was formed with a Commissioner, Executive Officer, and specialists in history and landscape, holding monthly meetings. Later there was a large change when the North Canterbury Parks and Reserves Board was established, which Ian saw as an improvement on the old Parks Board system. Ian had also transitioned from being employed by the Parks Board when he was first appointed, to being a public servant at Fox Glacier. This change gave Rangers more job security and better terms, and Ian could better see a career path ahead.



# NEW TOOLS BROUGHT TO MANAGEMENT OF KAIMANAWA HORSES



SUE RIVERS

KAIMANAWA HERITAGE  
HORSES SOCIETY

*Photo: Amanda Traves*

Management since then has involved a number of partners working together to implement an agreed ideal herd number. Most often the public hears about this with the annual or biennial horse musters.

The Kaimanawa horse musters have involved careful monitoring, rounding up horses, and considered re-homing through organisations such as the Kaimanawa Heritage Horses Welfare Society (KHH).



Kaimanawa wild horses, released following immuno-contraceptive treatment *Photo: Michelle Clarke*

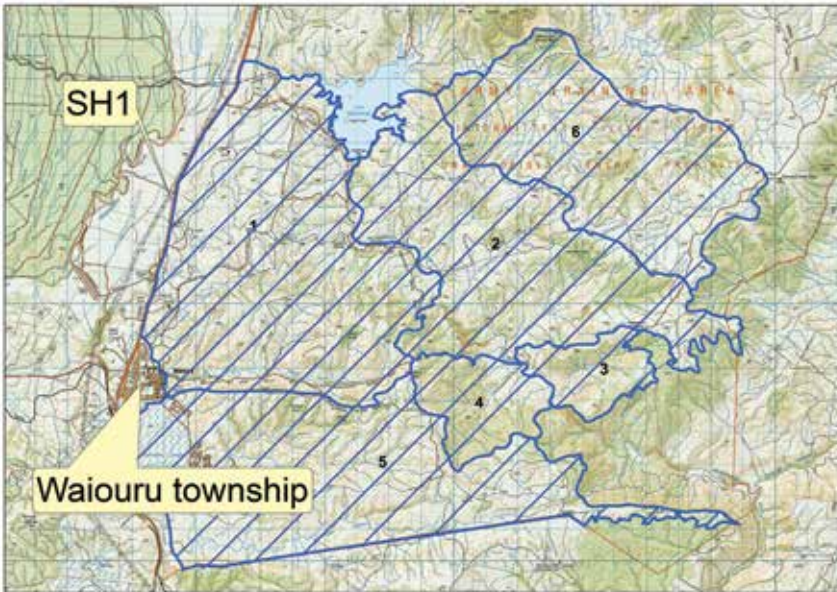
The Kaimanawa wild horses are descended from domestic releases from the late 1800s onward and occupy a large parcel of the Waiouru Military Training Area.

This herd has long had a place in New Zealanders' hearts, and in 1981 a protected area was established. Horse numbers surged, with overpopulation threatening the fragile ecological balance, as well as the health of the horses.

The long-term strategy has been, and remains, to protect both biodiversity values and the health and heritage of the Kaimanawa wild horses.

## Changes to the long-term strategy toward managing the wild Kaimanawa herd

The Kaimanawa Wild Horse Muster of 2022 marked the beginning of a new era in Kaimanawa wild horse management with the introduction of an immuno-contraception program following the re-homing muster. It is hoped the introduction of this program will assist in the stabilisation of herd numbers and



The range of the Kaimanawa wild horses – blue striped area – showing management zones. *Map: DOC*

Extensive research and collaboration with overseas experts informed the decision on which drug to implement with the Kaimanawa wild herd, and consultation with members of the Kaimanawa Wild Horse Advisory Group to work through application logistics began several years ago.

There were a range of factors to consider with regard to how to administer the immuno-contraception drug, with minimal interference of the horses being forefront in decisions. Finding a balance between drug efficiency and frequency of application was a priority consideration, along with the number of mares that would need to be treated in order to reduce population increase.



Helicopters muster the horses over large areas and difficult terrain. *Photo: Michelle Clarke*

help see a decrease in the necessity to conduct annual re-homing musters.

Wild horse management throughout the world has made significant strides in the last decade – developments keenly watched by partners in management of the Kaimanawa herd. With recognition that an alternative method for controlling population growth was necessary, the volunteer team at Kaimanawa Heritage Horses Welfare Society (KHH) have spent the time advocating for the immuno-contraceptive method as a complementary option to re-homing.

With resource-intensive musters being held annually or biennially for two decades the need for an alternative option to help reduce re-homing requirements has long been required. The introduction of a controlled immuno-contraception strategy alongside re-homing will start to bring that change.



Kaimanawa horses receiving the immuno-contraceptive treatment. *Photos: Michelle Clarke*

There is no intention of eradicating the horses nor suppressing the breeding ability of all mares remaining in the wild herd. The addition of contraception as an alternative management option will remain alongside re-homing for the foreseeable future until a greater understanding is in place of the effects of





The existing yards, with horses under observation following treatment. *Photo: Michelle Clarke*

contraception on the wild herd and their breeding rate. The ideal scenario would be to reduce the need for re-homing musters to occur annually and instead become the secondary management option that is utilised as and when required to maintain the agreed herd size. As we progress through the coming years, we will be in a better position to understand the effects of the addition of contraception and hope to find a balance that enables re-homing musters to coincide with the subsequent revaccination of previously treated mares. Monitoring of the wild herd will remain in place through aerial surveys, extensive photography programmes and ongoing data collection to ensure the correct approach can be applied in the future.

The focus now shifts towards improving facilities to ensure the contraception option can be utilised in a greater number of horses. The geographical nature and vastness of the area limits the ability to treat horses who live in the areas further away from the existing yards. Horses travelling from these more far-reaching areas are usually committed to the one-way journey of re-homing. This is mainly to ensure their welfare is not compromised through issues related to the long-distance travel associated with returning them to their established area of the ranges once treatment is complete.

Once funding can be secured and new yards can be built in the southern end of the management area, the contraception program can be extended, and we can be closer to achieving the goal of reducing the need and frequency of re-homing musters.

To see the addition of contraception as a combined tool toward maintaining a healthy and sustainable wild herd was an exciting achievement and culmination of much work. The committed partnerships between Kaimanawa Heritage



Kaimanawa wild horses being rounded up into the yards. *Photo: Michelle Clarke*

Horses Welfare Society (KHH), The Department of Conservation, and the Kaimanawa Wild Horse Advisory Group will remain focused on seeing it applied throughout future years.

The collaborative approach applied to the management of the wild Kaimanawa horses with a willingness from all parties involved to see the best outcome for the herd and their environment has received praise from wild horse groups and advocates from around the world. As we move into the future of Kaimanawa wild horse management, we go forward knowing that the relationships built over the previous years have proven a balance can be found for the benefit of all and with the welfare of the horses paramount in all decisions.

Further information can be found at [www.kaimanawaheritagehorses.org](http://www.kaimanawaheritagehorses.org)

# IAN ATKINSON – RECOLLECTIONS OF AN ECOLOGIST



DAVE WAKELIN

EX DOC AND EDITOR

*This article was based on and acknowledges the obituary for Ian Athol Edward Atkinson written by Mark C Smale and Carol J West and published in the New Zealand Journal of Ecology (2022) 46(1)*

Tongariro National Park owes a huge debt of gratitude to ecologist, Ian Atkinson, whose pioneering work in Tongariro across the broad range of plants, animals, soils and environmental threats set a path for current and future generations of scientists and managers to follow.

Vegetation mapping, soil mapping, volcanic succession, introduced rodent ecology, mammal-plant interactions, island ecology, and restoration ecology were some of the fields he followed and excelled at during his lifelong career.

Ian was born in Hamilton in 1932 to English parents, who came here to pursue his father's work as an electrical draughtsman involved with the design of the hydro power stations. The family returned to England before World War II and came back to New Zealand in 1946.

Several separate events sparked Ian's interests in outdoors and ecology. A family friend and plant pathologist, Dr Frank Newhook, organised casual work for him at the DSIR Mt Albert Research Centre. At King's College he was introduced to native birds by his housemaster, the noted ornithologist Dick Sibson. At Auckland University where Ian graduated MSc with Second Class honours the field trips with the AU Field Club to the Hauraki Gulf islands grew his lifelong interest in island ecology.

His MSc thesis entitled *Cornwallis Reserve: an ecological problem* displayed the holistic approach to ecology that was a hallmark of his later work.



Ian Atkinson on a family holiday on Big Island, Hawaii, 17 July 2007. Photo: Cynthia Peterson

For more than five decades he explored, researched, questioned, and advised on the ecology of New Zealand, most of time by getting out and doing. Few areas of the country, including the offshore islands, were not visited by Ian at some stage. That remarkable career was supplemented by an amazing publishing record.

*Ian was the first to recognise the threat to the open landscapes of the park posed by lodgepole pine (*Pinus contorta*) with his measurements of its growth rates and precocious maturity.*

Ian was appointed to DSIR Botany Division's new outpost at Taita in the Hutt valley in June 1958. Ian immediately began assisting his mentor, longtime colleague, and lifelong friend Tony Druce on a long series of trips describing the vegetation and soils of the Hutt catchment.

One of Ian's many big challenges was mapping the vegetation of the vast volcanic landscapes of Tongariro National Park. In doing so he developed techniques to map large areas of vegetation with limited resources and his procedures have become standard protocols for work in other ecosystems.



## FAST-GROWING PINES MENACE UPPER RUAPEHU SLOPES



Fast-growing *pinus contorta* could cover the upper slopes of Mount Ruapehu and much of other Tongariro National Park areas unless control measures are taken now, according to an ecologist of the Scientific and Industrial Research Department, Mr. I. A. E. Atkinson.

In a brief report on this Christmas-tree-like species of pine, Mr. Atkinson said observations on the growth of seedlings pointed to one conclusion. Unless control measures were taken most of the upper slopes of Mount Ruapehu between 4000 feet and 6000 feet would be covered by pine forest or pine scrub by the end of this century.

### Tussock Land Too

It could be expected that the better-drained areas of tussock land in the park would ultimately become pine forest too.

"The effect of these changes on the aesthetic, recreational, educational and scientific values of the park needs no elaboration," he said.

Mr. Atkinson, who is now

engaged on a botanical survey of the park, found along with park rangers that the pine, also known as *pinus murrayana*, had established itself on the western and eastern slopes of Ruapehu as well as the southern slopes above Kariol.

Many of the pine seedlings were growing at between 5000 and 6000 feet in places such as gravel fields where native plants were unable to establish themselves.

Seedlings at altitudes above the mountain beech's upper limit of 5000 feet were growing at rates at least twice as fast as the beech.

### Seeding Profusely

Many of these pine plants, Mr. Atkinson said, were seeding profusely within 10 years of establishment. Some saplings in the park were already

surrounded by numerous seedlings.

An inspection of these pine plants growing in the park has already been made by the New Zealand Forest Service and park rangers are keeping a close watch on the growth, the park board chief ranger, Mr. W. Massey, told *The Daily News*.

Plants were being detected but many were in areas where access was difficult.

Mr. Massey said it was feared that unless some control measures were taken the pine could eventually smother practically all native growth in the park.

In the picture above, Mr. Massey examines a five-year-old specimen of *pinus contorta* found growing among tussock three miles from the Chateau Tongariro. Dec. 1962

archipelagos of the Pacific and New Zealand and the devastating role of introduced ship rats.

Back in New Zealand Ian worked with scientists from the Wildlife Service and Ecology Division on the impacts of introduced mammals, browsers and predators, on native flora and fauna. Why New Zealand has so many divaricating shrubs in our understory intrigued him, spurred on by the suggestion that moa browsing could have been an evolutionary driver for it.



Releasing imported Heather Beetle into selected areas of Tongariro National Park as part of a project to control the spread of Heather throughout the park. Photo: Harry Keys

His fields of interest were widespread. He analysed the worldwide spread and impact of rats on oceanic islands (such as New Zealand) and his bringing together of disparate information influences rodent eradications efforts today. His early recognition of the impacts of introduced plants, such as wilding pine and heather on Tongariro National Park and other vulnerable areas led to practical eradication programmes being put in place.

In 1987 the subject of his Ecological Society presidential address was the need for restoration ecology with monitoring. Today restoration of the altered environment seems a no-brainer but 40 years ago the concept was seen as groundbreaking.

Government reorganisation of science departments led to Ian and several other scientists to form Ecological Research Associates of New Zealand. Ian and fellow scientist John Campbell continued their research into the effects of kiore (*Rattus exulans*) on forest succession until funding for the project ceased.

Sadly, Ian started to suffer memory loss. His last scientific paper was published in 2006 and by 2007 he was unable to continue working. He died in Dunedin in 2019.

A 1962 article on Ian Atkinson's concerns over the spread of wilding pine (*Pinus contorta*) into Tongariro National Park.

Ian was the first to recognise the threat to the open landscapes of the park posed by lodgepole pine (*Pinus contorta*) with his measurements of its growth rates and precocious maturity. Ian's fieldwork at Tongariro extended over a series of summers. The experience and knowledge acquired by the succession of new graduates he employed as field assistants led to lives of botanical interest and, for some like Colin Ogle, careers as ecologists. Ian and his colleague, Tony Druce, shared a number of field trips to Tongariro and Egmont national parks where Tony was working on Egmont vegetation succession.

Ian was an adept illustrator of vegetation profiles and his annotated Vegetation Map of Tongariro National Park is replete with examples of his work.

In 1966 he graduated with a PhD from the University of Hawaii with a thesis on vegetation succession on the lava flows. His time in Hawaii influenced his future thinking as he realised the parallels between the

His importance to the scientific community and to New Zealand's changing environmental state is shown by the number of organisations that sought his advice. These included:

- the Department of Conservation,
- the Fauna Protection Advisory Council,
- Protected Area Scientific Advisory Committee,
- the Wellington National Parks and Reserves Board,
- the Kakapo Scientific and Technical Advisory Group,
- the Chatham Islands Conservation board
- chaired the scientific advisory committee of World Wildlife Fund-NZ from 1993 till 1995

Through his lifetime his significant contributions to New Zealand science and conservation were recognised with many awards including:

- the NZ 1990 Commemoration Medal,
- the Royal Society of New Zealand's Charles Fleming Award for Environmental Achievement in 1992,
- a Biodiversity Accolade bestowed by the Minister of Conservation,
- the Allan Mere of the New Zealand Botanical Society in 2004,
- the Charles Fleming Award.
- made a life member of the New Zealand Ecological Society after serving as Vice- and President, and as a longtime Councillor
- made a life member of the Ornithological Society of New Zealand.



Ian's huge contribution to offshore islands and kākāpō conservation work was recognised in the naming of a kākāpō chick after him. *Photo: Department of Conservation*

In March 2007, at Victoria University of Wellington Ian was invited to open the Ian Atkinson Laboratory for Biodiversity and Restoration Ecology Research.

In 2011, on Whenua Hou/Codfish Island, a kākāpō chick was named Ian by Mick Clout to recognise Ian's contribution to kākāpō conservation. Ian is still surviving along with other kakapo, a testament to the other Ian's contribution to offshore islands and kakapo conservation work over the years.

Ian was a gentle, dedicated man with a broad range of interests who extended the boundaries of ecological and conservation research in New Zealand. He was a great New Zealand ecologist.



# INTRODUCING OUR KAIRURUKU REO MĀORI FOR KIDS GREENING TAUPŌ



TĀKOHA O TE RANGI  
PITIROI  
KAIRURUKU REO MĀORI FOR  
KIDS GREENING TAUPŌ

RACHEL THOMPSON  
KIDS GREENING TAUPŌ



Tākoha planting with a tamariki from Northwood Kindergarten, 2022. *Photo: Rachel Thompson*

Tēnā tātou.

Ko Tauhara me Tongariro ngā maunga  
Ko Taupō-Nui-a-Tia te moana  
Ko Waikato me Hinemaiaia ngā awa  
Ko Te Rangīta me Te Ringatahi ngā marae  
Ko Ngāti Ruingārangi me Ngāti Te Rangīta ngā hapū  
Ko Ngāti Tūwharetoa te iwi  
Ko Te Arawa te waka  
Ko Te Heuheu te tangata  
Ko Tākoha o te rangī Pitiroi tōku ingoa.

Nō Ngāti Rangiwewehi me Ngāti Rangitihī hoki ahau hēoi i pakeke mai au i Tūwharetoa nei, Ki aku kāinga e rua - a Nukuhau me Hātepe. I kuraina ahau ki te Kura Kaupapa Māori o Whakarewa i te reo ki Tūwharetoa. I tupu mai au i roto i te reo Māori me te piri ki ngā mahi o te taiao. He ākongā ahau i te Wānanga o Raukawa. Ko te tohu kaitiakitanga Pūtaiao (Environmental Management) taku tohu.

I was raised here in Tūwharetoa, within my two kāinga - Nukuhau and Hātepe but also descend from Ngāti Rangiwewehi, Ngāti Rangitihī. I was fortunate to be educated at Te Kura Kaupapa Māori o Whakarewa i te Reo ki Tūwharetoa. I was raised with te reo Māori as my first language and for as long as I can remember have been involved in environmental projects around the iwi. I am currently studying at Te Wānanga o Raukawa in the first year of a Degree in Kaitiaki Pūtaiao / Environmental Management. I have taken part in Kids Greening Taupō projects alongside my kura in the past which made me interested in this work. The main highlight for me working for Kids Greening Taupō is working in the environment with our people as kairuruku reo Māori and hope that more of our tamariki have the opportunity to connect to our beautiful environment.



Tākoha teaching a group of tamariki from Te Kura o Waitahanui how to plant, 2021. *Photo: Rachel Thompson*



The Kids Greening Taupō Team, Heidi Pritchard, Tākoha o te Rangī Pitiroi, Rachel Thompson at a Greening Taupō Community Planting Day, 2022. *Photo: Kids Greening Taupō*





Some of the many te reo Māori nature and conservation resources for children, free to print from the Kids Greening Taupō website [www.kidsgreeningtaupo.org.nz](http://www.kidsgreeningtaupo.org.nz)

Rachel Thompson takes up the story.

Our coordinators realised last year that we could never fully engage with kura kaupapa or kōhanga reo if we could not kōrero Māori. If we were to work with these schools and centres successfully we really needed to have a coordinator who could deliver our programme in te reo Māori from the view of te ao Māori. With funding and support from Tūwharetoa Māori Trust Board and Project Tongariro, we set about employing a Kairuruku reo Māori. Tākoha o te Rangī Pitiroi came on board in Term 3 2021, just as the country was plunged back into another lockdown. He spent his first month creating te reo Māori resources, such as nature scavenger hunts. These are all now available for free on our website to any kura or kōhanga in New Zealand and have been very popular. We are proud to provide resources such as these, as we can see that a lack of te reo Māori resources is a huge issue for kura and kōhanga.

Once we were able to be back on the ground engaging with students again, Tākoha established a relationship with Te kura o Waitahanui, Te Kura Kaupapa Māori o Whakarewa I Te Reo Ki Tuwharetoa, and Te Kohanga Reo o Te Puawaitanga. He has been working with



Tākoha teaching a group of tamariki from Te Kura Kaupapa Māori o Whakarewa I Te Reo Ki Tuwharetoa trap building.

Photo: Rachel Thompson





Tākoha planting with a tamariki from Te Kohanga Reo o Te Puawaitanga. *Photo: Rachel Thompson*

them to connect students to nature, view the environment through the lens of te ao Māori, and become kaitiaki of the area. He has planted with them, mulched, weeded, and set traplines.

This year we are very lucky to have secured funding for the year for the kairuruku reo Māori role from the

World Wildlife Fund through their partnership with the Tindall Foundation. This has allowed Tākoha to continue to support our programme and to engage with other kōhanga reo. We were very excited at our Term 1 restoration event to realise that over half of the 150 students there were speaking te reo Māori as their first language.

We believe that the kaupapa of Kids Greening Taupō fits perfectly with the te ao Māori world view, and are super excited to be able to involve Māori speaking tamariki in everything that we offer. Tākoha has allowed us to engage these students and teach them in their own language, and that is super exciting.

Thank you so much WWF and the Tindall Foundation for allowing us to do this mahi.



# ŌWHANGO IS ALIVE WITH BIRD CHORUS



Department of  
Conservation  
*Te Papa Atawhai*

THIS ARTICLE WAS  
FIRST PUBLISHED ON  
THE DEPARTMENT  
OF CONSERVATION'S  
CONSERVATION BLOG

The growing success of the Whio Forever Recovery Programme couldn't be achieved without the efforts of our nationwide community partners. Ruapehu District conservation community group Ōwhango Alive is focused on the recovery of birdlife in the Ohinetonga Scenic Reserve and plays an important role in saving the threatened whio.

Concerned about the lack of birdlife in Ohinetonga Scenic Reserve, which sits on the boundary of Tongariro Forest Park, locals Mark and Sally decided to take action. The Tongariro Forest Park is one of five national kiwi sanctuaries, home to the threatened whio (blue duck) and weweia (dabchick), as well as pōpokatea (whitehead) and toutouwai (North Island robin).



Whio release on April 22nd at the "Swimming Hole" in the Ohinetonga Scenic Reserve.

Mark says when they started work in 2011 they were concerned people would dismiss their conservation efforts and label them as tree huggers. However, the community's response was quite the opposite. "We started as a group of just four local residents managing 20 traps, but we've grown to a group of 30 of us managing close to 300 traps," he says. "The more volunteers we have, the more we can do. You can have all the money in the world, but without people, we can't make anything happen!"



Ōwhango Alive celebrates World Rivers Day with a community tree planting mission.

"We missed the birdsong in the area, it used to echo throughout the reserve. We've seen the destruction predators have caused, so we founded our conservation group Ōwhango Alive," Sally says. The group's mission is to protect and enhance the environment of the Ohinetonga Scenic Reserve, Whakapapa River and Ōwhango village for the benefit of the native flora and fauna and the enjoyment of locals and visitors.

The threatened whio are thriving under Ōwhango Alive's volunteer programme. Sally has nicknamed a group of 18 whio she's seen speeding down the Whakapapa river together in autumn 'the youth club'. An abundance of whio is a great sign – whio are indicator species, where you see whio you can be sure the river is clean, clear and healthy.

Trapping has proved hugely successful for the group in recovering native bird populations. Over 6,700 predators have been trapped in the bush by volunteers. "It's great when you hear people say things like: 'Wow, I haven't heard birdlife like that before', and start describing the birds that they've seen to you," says Sally.

Ōwhango Alive is active in their community, educating locals and visitors about predator control, identifying





Ōwhango Alive and local DOC rangers host Ngakonui Valley School for some lessons on conservation.

birdlife, flora and fauna, and encouraging enthusiasm for the cause. With numerous trap lines operating Mark and Sally are seeing (or we should say, hearing) the fruits of their labour: "Ōwhango is alive!". If you'd like to get involved with Ōwhango Alive and their conservation journey they hold regular meetings and working bees. You can also sponsor a trap. Find them on Facebook, or contact them by email to volunteer: [owhangoalive@yahoo.com](mailto:owhangoalive@yahoo.com)



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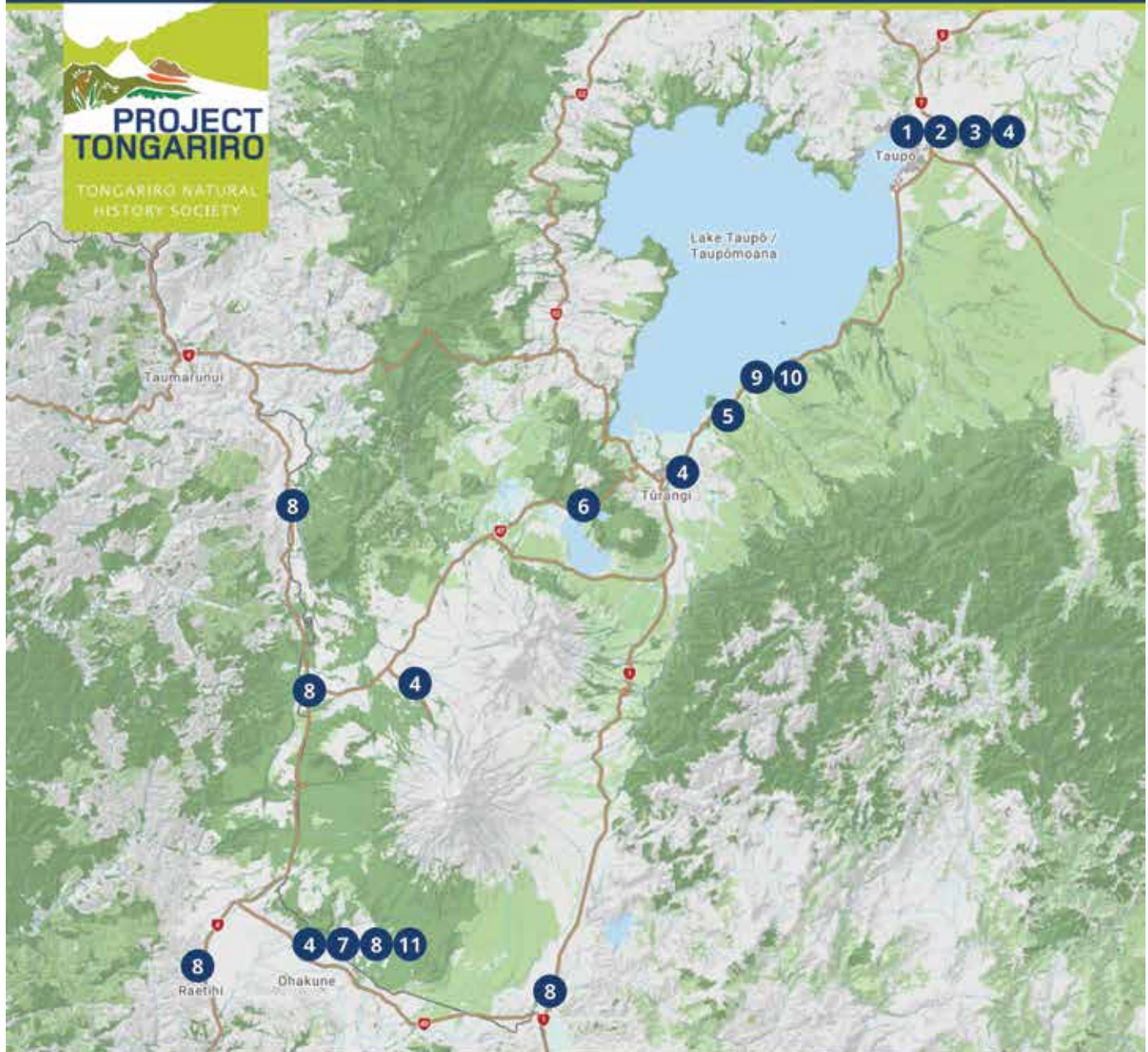
**MOBILE:** 027 412 7145

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## Current Projects & Activities @2022



1. Greening Taupō
2. Kids Greening Taupō
3. Predator Free Taupō
4. Mahi Aroha - Summer Programme
5. Te Matapuna Wetland Restoration
6. Mt Pihanga - Lake Rotopounamu Forest Restoration
7. Rongokaupo Wetland Restoration
8. Waimarino Conservation Education Programme
9. Oruatua Recreational Reserve Restoration
10. Predator Trapping
11. Kiwi Forever Programme





*Photo: Yulia Gadalina*